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FM 61-100

DEPARTMENT OF THE ARMY FIELD MANUAL

*Superseded by FM 61-100
25 June 65*

THE DIVISION



HEADQUARTERS, DEPARTMENT OF THE ARMY
JANUARY 1962

FIELD MANUAL
THE DIVISION

FM 61-100

CHANGES No. 1

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D.C., 27 March 1963

FM 61-100, 4 January 1962, is changed as follows:

Make the following pen-and-ink changes throughout the manual (including index):

Substitute **combat service support** for "administrative support".

Substitute **fire support coordination line** for "bomb line".

Substitute **supply and transport battalion** for "supply and transportation battalion".

Substitute **motor transport company** for "transportation company".

2. Scope

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c. Recommended changes or comments to improve this manual should be forwarded direct to U.S. Army **Combined Arms Combat Developments Agency**, Fort Leavenworth, Kans., on DA Form 1598 (Record of Comments on Publications).

4. Other Roles

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i. (Added) Counterinsurgency tasks.

9. Organization, Capabilities, and Limitations of the Airborne Division

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b. The airborne division has the following limitations:

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(5) (Added) Requires combat support and combat service support augmentation if employed in sustained operations.

12. Assistant Division Commanders

(Superseded)

a. The assistant division commanders (ADC) assist in the command of the division by performing those tasks assigned them by the division commander.

b. Specific tasks for assistant division commanders may include—

(1) Acting as command representative to supervise unusual situations that arise.

- (2) Heading a planning staff for future operations or joint matters.
- (3) Commanding a task force.
- (4) Supervising execution of specific portions of operations orders.
- (5) Assuming control of the division at an alternate command post when required.

15. General

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c. Special Staff.

- (1) (Superseded) With the exception of the chemical section, the division surgeon section, and the headquarters commandant section, the special staff sections are provided from organic personnel of divisional units other than the division headquarters and headquarters company. Air defense representation is provided by attached air defense units. When air defense units are not attached to the division, the division artillery commander will advise the commander on matters pertaining to air defense.
- (2) (Superseded) The division staff is normally augmented with a staff weather officer section and an air liaison officer from the supporting Air Force.

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17. Staff Arrangements and Liaison

a. General. (Superseded) To expedite staff reaction, a tactical operations center will habitually be established during active operations. The support command commander may establish an operations center to expedite current logistical activities. These operations centers are not separate organizational entities in the tables of organization.

* * * * *

c. Logistical Operations. (Superseded) Logistical operations are controlled, coordinated, and regulated by the support command. Personnel from the division staff agencies and units may be furnished to the support command headquarters as required to assist in logistical functions. To expedite logistical operations, the support command commander may establish an operations center. It will be concerned primarily with coordinating and expediting current division logistical activities.

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24. General

a. Command and staff *** the command post.

- * * * * *
- (3) (Superseded) Division alternate
- (4) (Added) Division rear
- * * * * *

Figure 2: Add box



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26. Division Main

b. Composition. The following are *** the division main:

- * * * * *
- (2) An assistant division commander and personal staff.
- * * * * *
- (14) (Superseded) Command signal center platoon.
- * * * * *
- (23) (Superseded) Military police company headquarters, security platoon, and other security personnel as required.
- * * * * *
- (24) (Added) Chaplain section.
- * * * * *

27. Division Alternate Command Posts

(Superseded)

The division normally provides for the establishment of an alternate command post to insure continuity of operations should the division main command post become incapable of operating. Minimum duplicate records and maps are maintained at the alternate command post. The division alternate command post is provided either by—

- a. Establishing a small command post facility with adequate communications and personnel; or
- b. Designating a major subordinate headquarters to be prepared to assume control of the division.

28. Division Rear Echelon

a. General. Elements of the *** division rear echelon. These include

the adjutant general, finance officer, inspector general, staff judge advocate, and information officer. Other elements may *** are in FM 12-11.

* * * * *

d. Rear Area Security and Area Damage Control. (Superseded) The officer in charge, division rear echelon, is responsible to the support command commander for the internal security of the division rear echelon. The support command commander integrates the division rear echelon into the area damage control plan and the rear area security plan when the division rear echelon is located in the division rear area. When the division rear echelon is located outside of the division area, the officer in charge (OIC) is responsible to insure that the division rear echelon is included in local rear area security and area damage control plans.

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29. Division Support Command Command Post

(Superseded)

The division support command command post is established in the division support area and assists the support command commander in the logistical support of the division. Basic considerations for the movement, location, and security of the support command command post are generally the same as for the division main. Details of organization and operation of the support command command post are contained in FM 54-2.

30. Brigade Command Posts

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b. A brigade command *** include the following:

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(3) (Superseded) S3 section.

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(7) Brigade **signal** officer.

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(14) (Added) Chemical officer.

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35. Signal Orders and Instructions

a. Standing Operating Procedures (SOP). (Superseded) The division signal officer prepares the signal annex to the division SOP. Communications SOP's for all division units are based on the division SOP and are prepared by unit signal (communication) officers for approval of their respective commanders. (For details as to format and content see FM 24-16 and FM 101-5.)

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47. Division Support Command

a. *General.* The division support *** division to include—

- * * * * *
- (5) Advice to the division and subordinate commanders and their staffs on logistical operations to include status of supply, maintenance, and transportation, and capabilities of organic and attached **supply, maintenance,** and transportation units.
- (6) Rescinded.

c. *Employment.*

- * * * * *
- (2) The support command *** division rear area. **Combat service** support units are located forward with the brigades to furnish one-stop direct support. Units in the *** division support area.
- (3) **Combat service** support can be provided on an area basis or by attachment of support units to major divisional units. It is usual *** as a basis.

51. Mechanized Infantry Battalion

a. *General.*

- * * * * *
- (2) (Superseded) Mechanized infantry battalions require more equipment maintenance and supplies than infantry or airborne battalions. They are more sensitive to difficult terrain and barriers than their nonmechanized counterparts. Over appropriate terrain, their mechanization enables the force to be employed more widely, more rapidly, and often more violently than infantry and airborne battalions.

54. Division Organization for Combat

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c. (Superseded) Division troops include those headquarters and combat and combat support troops not attached to the brigades or to the support command.

59. Fire Support Plan

a. *Development.* The fire support plan which is made by the FSE and usually published as an annex to the operation order (plan) coordinates fire support to include the employment of radioactive fallout **and chemical agents.** The fire support *** fire support plan.

60. Fire Support Requests

a. *Nuclear, chemical, and biological fires.* When their use has been authorized, decisions to employ nuclear weapons and **chemical** and biological agents rest with the commanders to whom the weapons are allocated. Authority to employ *** tactically significant fallout. **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 *** of fallout patterns.

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62. Fire Coordination Measures

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c. *Fire Support Coordination Line (FSCL).* (Superseded) The fire support coordination line (FSCL) is a line recommended by the appropriate ground force commander to higher headquarters to insure coordination of fire not under his control, but which may affect current tactical operations. Where possible, the FSCL should follow well defined terrain features. The establishment of the FSCL is normally coordinated with the appropriate tactical air commander and other supporting elements.

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67. Reconnaissance

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c. *Air Reconnaissance.* Air reconnaissance should *** the Air Force. Requests for air reconnaissance missions are received, processed, and coordinated by the G2 air group of the TASE, TOC, **as prescribed in FM 30-20.** If the request *** the TASE, FATOC.

* * * * *

71. Counterintelligence

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b. Counterintelligence specialists are *** to the division. A **counterintelligence** section, containing counterintelligence specialists, is organic to the military intelligence detachment that is normally attached to the division. The senior officer of the **counterintelligence** section is usually designated as chief of the counterintelligence branch of the G2 section.

74. Division Engineer Battalion

a. (Superseded) The engineer battalion provides equipment and individual skills for performance of engineer tasks. Projects are normally

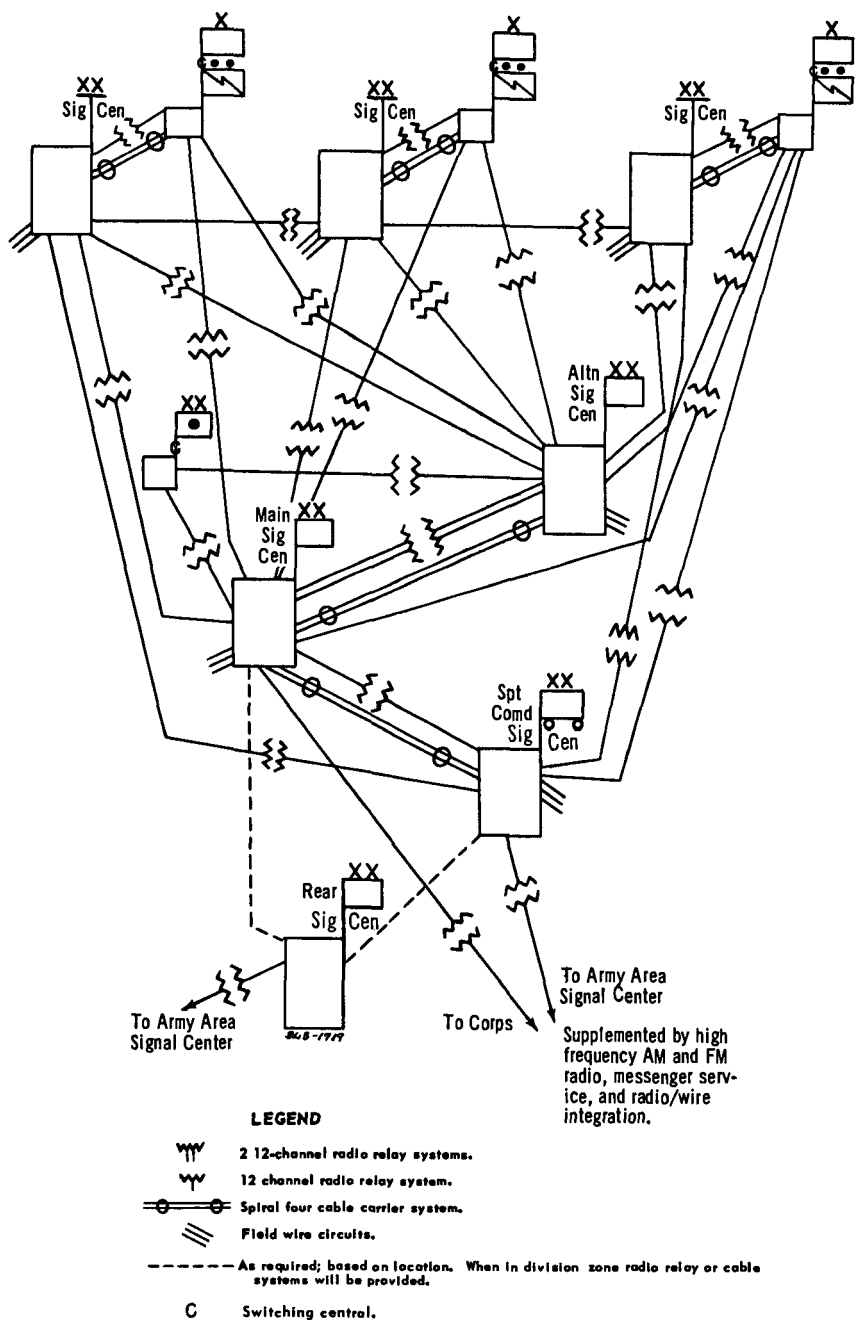


Figure 5. (Superseded) Type division area communication system.

accomplished by companies or by platoons, reinforced when necessary with engineer construction equipment and operators from headquarters and headquarters company, using river-crossing equipment from the bridge company (except the airborne division). The companies or platoons normally will be employed in support of subordinate units of the division. Engineer units generally are not held in reserve. When it is necessary to commit engineer troops as infantry, it is preferable to maintain engineer unit integrity. When used in this manner, they should be provided forward observers and additional weapons and communications.

* * * * *

78. Division Signal Battalion Operations

a. (Superseded) The signal battalion headquarters is normally located in the vicinity of division main, while the division signal officer section is located within division main.

* * * * *

79. Communications Employment

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b. *Communication Centers.* Communication centers are *** main signal center. The communication centers **supporting** division main, **division alternate**, brigade command posts, support command headquarters, and division rear echelon serve not only these headquarters but also other units and installations in the vicinity.

* * * * *

c. *Radio Nets.* (Superseded) Radio communication requirements in the division have necessitated establishing a large number of stations in some nets. To insure maximum results from such communications, the commander must establish firm but flexible operational controls to meet changing requirements in the field.

(1) Internal Radio Nets are—

- (a) *Division command, intelligence and administrative/logistics nets (AM-RATT).* The signal battalion and other division units are equipped to operate three separate functional radio-teletype nets: one for command operations, one for intelligence operations, and one for administrative and logistical operations. These nets include division headquarters and all major subordinate units.
- (b) *Division CG/command net (FM-voice).* This net is intended primarily for communication between the division commander primarily for communication between the division commander, his staff, and the commanders of major subordinate units. While specific use of the net will be governed by the division commander's desires, it is expected that lateral com-

munications between subordinate commanders will be established by the calling commander entering the FM net of the called commander and not the division CG/command net. Ground or airborne relay stations are established when required.

- (c) *Division warning/broadcast net (AM-voice)*. This net broadcasts air alerts; chemical, biological, and radiological (CBR) attack warnings; radiological safety data; nuclear strike warnings; fallout warnings; and similar information of an urgent operational nature which applies to the division as a whole or to major division elements, which need not be handled through command channels, and for which no immediate receipt or reply is required. Division headquarters, division artillery headquarters, brigade and combat battalion headquarters, and the armored cavalry squadron have organic radio sets that may transmit in this net as required. Division artillery headquarters operates a station in this net to broadcast air alert status; also, the armored cavalry squadron normally is authorized to broadcast urgent reconnaissance information in this net. Each battalion and separate company is equipped with receivers for receiving information transmitted in this net.
 - (d) *Division air request radio net (AM-voice/RATG)*. The purpose of this net is to forward directly to the TOC requests for immediate tactical air support, and to disseminate information and instructions to units concerning airstrikes that may affect the command. The net control station is operated by the signal battalion and is located at the division TOC for the joint use of the G2 air group and G3 air group of the TASE. The brigade and combat battalion headquarters and the armored cavalry squadron operate in this net.
 - (e) *Division signal center net (RATT)*. This net is used to pass command and administrative message traffic between division main, division rear, and the three area signal centers.
- (2) External Radio Nets are—
- (a) *Corps command operations net (RATT)*. This net is used by the corps commander for operational control of major subordinate units. The signal battalion furnishes stations at division main and division alternate.
 - (b) *Army air request net (AM-RATT)*. This net is used to obtain air support for the division. The signal battalion operates the division station in the army air request net. This terminal is located at the division TOC.
 - (c) *Army logistics net (AM-RATT)*. The signal battalion is equipped to operate the division terminal in an army logistics net. Although designed to handle combat service support

traffic, it may be employed to supplement other nets during displacement or in emergencies.

- (d) Spot report receiver system (UHF-voice). This station is used to monitor close air support missions flown for the division by the Air Force. A separate set is provided for use by the G2 to monitor Air Force reconnaissance missions. The brigade and combat battalion headquarters, division artillery headquarters, and the armored cavalry squadron are also equipped with UHF-voice radio sets for use in the spot report receiver system.

* * * * *

82. Division Aviation Battalion

a. *General.* The aviation battalion *** in two echelons.

- (1) One element normally consists of the headquarters and headquarters **company** and the general support aviation company. This element normally * * * division instrumented airfield.

(a) The headquarters and headquarters **company** provides the personnel and equipment for the control and operation of the division instrumented airfield.

(b) (Superseded) The communication section of the headquarters and headquarters company provides internal communications support and equipment for operation in the division command net, intelligence net, administration/logistics net (AM-RATT), division CG/command net (FM-voice), corps flight operations net (AM-RATT), and for monitoring the division warning/broadcast net (AM-voice). The section is also responsible for operating the airfield control tower at the division instrumented airfield.

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91. General

(Superseded)

One psychological warfare battalion is assigned to a field army. Elements of this battalion are normally available to support division operations.

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94. General

a. The G1 exercises general staff supervision over all personnel activities in the division except **legal services (par 99)**. In addition to *** are as follows:

* * * * *

c. (Superseded) Personnel and administrative (P&A) services for the division and attached units are provided by the personnel service

division in the adjutant general's section. During combat, the majority of the personnel of the personnel service division operate in the division rear echelon. When necessary, predesignated teams accompany any prolonged temporary or permanent detachment of organic units from the division. In a like manner, the unit personnel sections of nonorganic elements attached permanently or for prolonged periods of time are absorbed and used in the personnel service division. Unit personnel sections will be restored to parent organizations upon detachment from the division.

95. Personnel Services

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c. Personnel administration at unit levels.

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(2) Battalion level—battalion *** battalion level P&A. **P&A actions which the battalion commander has no need to influence will be handled directly between companies and division.** The battalion personnel *** division rear echelon.

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96. Replacements

a. The replacement detachment *** the adjutant general. This **detachment** normally operates in the vicinity of the division rear echelon and processes all replacements received by the division. The normal capacity of the **detachment** is 300 replacements at one time, which can be increased if additional control personnel and equipment are provided.

* * * * *

99. Legal Services

(Superseded)

The staff judge advocate provides legal advice to the command. The legal services provided by the staff judge advocate section are—

- a. Administration of military justice.
- b. Claims operations.
- c. Investigation and prosecution of war crimes.
- d. Legal assistance.
- e. Legal advice in international law, military affairs, civil affairs, and procurement matters.

101. Discipline, Law, and Order

Each subordinate commander *** commanders as required. Military police operations are covered in paragraphs 85 and 86.

101.1. Chaplain Coverage

(Added)

The majority of the chaplains authorized the division are assigned to, and normally operate in, the subordinate units. Their collective efforts, however, are coordinated by the division chaplain to provide denominational coverage as required. Details on the employment of the chaplains of the division are presented in FM 12-11.

109. Fundamentals of Offensive Action

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o. (Added) The plan must provide for the combat service support required to sustain the attack.

110. Forms of Maneuver and Offensive Operations

(Superseded)

a. General. The basic forms of maneuver are the penetration, the frontal attack, the envelopment, and the turning movement. The exploitation is an offensive operation which may follow the successful execution of one or more of the above offensive maneuvers and which may employ the fundamentals of any or all of them to accomplish the mission. The pursuit is an extension of a successful exploitation.

b. Penetration. In the penetration the attacking force ruptures the enemy's defensive position, destroys his forces, installations, and control means, and seizes objectives which break the continuity of his defense. This action facilitates the destruction in detail of his divided force and the movement of forces deep into his rear areas in exploitation (pars. 149-152).

c. Frontal Attack. The frontal attack strikes the enemy all along his front. It is employed to overrun and destroy a weaker enemy or as a supporting effort in conjunction with other forms of maneuver.

d. Envelopment. In the envelopment the attacking force avoids the enemy's main defensive strength by going around or over it to seize an objective in the rear which disrupts his communications and support, cuts his escape routes, and subjects him to destruction in position. A supporting attack pins down the enemy to prevent his escape and reduce his capability of reacting against the main effort by forcing him to fight in two directions simultaneously (pars. 153-156).

e. Turning Movement. The turning movement is similar to the envelopment in that the attacking force attempts to avoid the enemy's main defensive strength by going around or over it to seize a deep objective while a supporting attack attempts to fix him in place and to deceive him as to the objective of the main attack. It differs, however, in that the main attacking force is usually out of supporting distance of other elements of the force and must be sufficiently mobile and strong to operate independently. The purpose is to force the enemy to abandon his position

or to divert major forces to meet the threat of the turning force and thus fight on the ground chosen by the attacker (par. 157).

f. Exploitation. In the exploitation the attacking force is given objectives deep in the enemy rear. It advances with maximum speed, avoiding, bypassing, or breaking through resistance in order to secure or destroy or neutralize objectives in minimum time. In the pursuit, a phase of the exploitation, the primary objective of the attacking force is to destroy the enemy (pars. 164-169).

111. Choice of Maneuver

A higher commander *** direction of attack. The mission of the division, characteristics of the area of operations, disposition of opposing forces, and the **relative combat power of the** opposing forces are analyzed to determine the best form of maneuver to be adopted. Normally, terrain **characteristics**, time available, **own disposition**, **ability to support the attack**, and the **enemy** situation are the principal factors involved in choosing the form of maneuver to accomplish the mission.

113. Terrain and Weather

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c. Cover and Concealment.

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(5) (Added) The basic principles of camouflage are covered in FM 5-20.

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g. Weather.

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(3) *Use of smoke.* Conditions of poor *** or good observation. In addition to the use of smoke to limit visibility, smoke may be used to attenuate **thermal effects of nuclear weapons**.

115. Fire Support

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c. Chemical. (Superseded) Toxic chemical attack produces casualties without the destructive effect of nuclear fires. Toxic chemical concentrations for persistent effect can retard or block enemy movement or restrict his occupation of terrain areas. Toxic chemicals, in conjunction with nuclear fires, increase the casualties inflicted upon the enemy and retard his efforts to organize his defense.

* * * * *

118. Deployment of Forces

a. General. (Superseded) The division's forces may be distributed as a main attack, a supporting attack, and a reserve. One brigade may be

assigned to accomplish each of these tasks. When two or more brigades are assigned portions of the division final objective or are given tasks of equal importance, there will not be a main and supporting attack as such. The division commander may at any time exploit success in a particular area by shifting the weight of his combat power.

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c. *Supporting Attacks.*

(1) A supporting attack *** of the following:

* * * * *

(e) Prevent reinforcement **against** the main attack.

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130. Planning Guidance

(Superseded)

Planning guidance assists the staff in preparing or revising staff estimates. It may include the commander's analysis of the mission; any factors and aspects of the situation the commander considers important or unusual, including the use of nuclear and chemical weapons; and any courses of action he may wish developed. Guidance in the employment of nuclear weapons is normally confined to the type of targets to be attacked and the weapon reserve desired. Damage criteria and troop safety considerations are SOP matters. Command guidance in these respects is appropriate only when departure from the SOP is desired.

171. Basic Considerations

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e. Coordination of nuclear *** night is difficult. Darkness increases troop safety considerations because of **loss of night vision (adaptation)**. Obstacles created by *** as control measures.

f. Enemy use of nuclear weapons may affect the vision of attacking or defending troops, rendering them temporarily **less effective**. Fires created by *** of either side.

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172. The Night Attack

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e. *Fire Support.*

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(3) (Superseded) Careful consideration is given to the use of on-call nuclear fires because of the difficulty of providing effective warning. When on-call nuclear fires are used, normal troop safety warnings are augmented to insure protection against dazzle.

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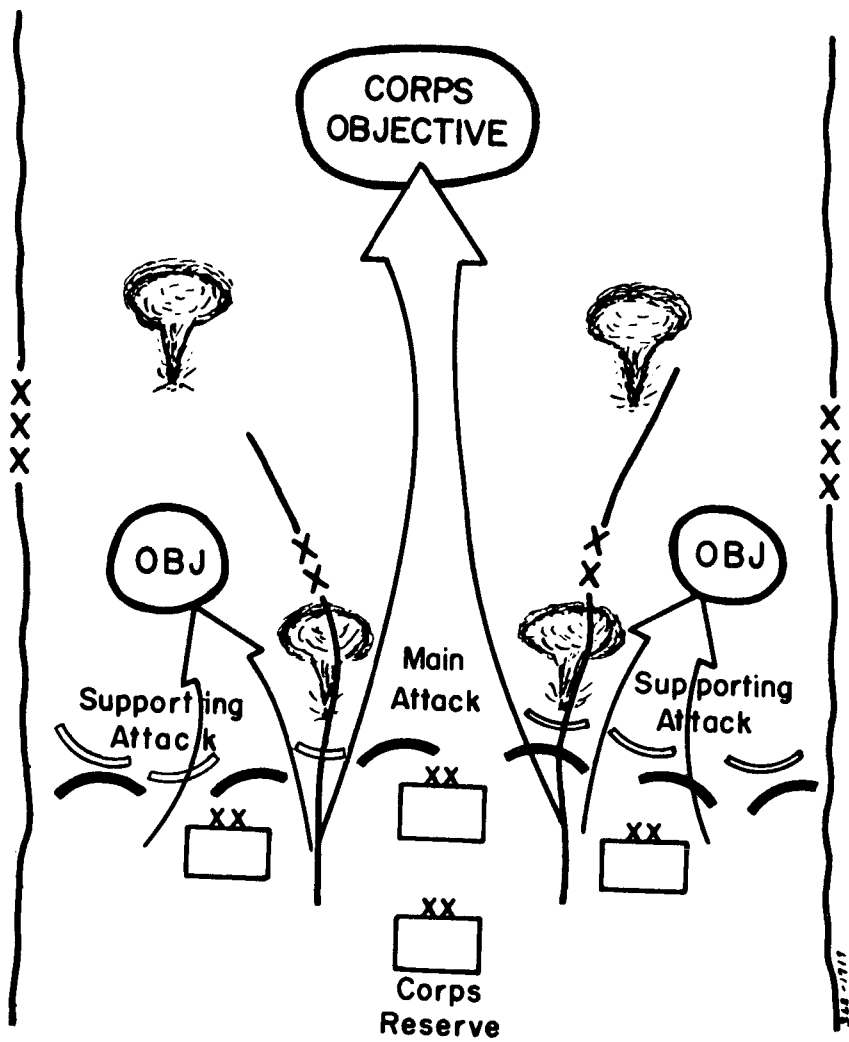


Figure 9. (Superseded) Division making the corps penetration.

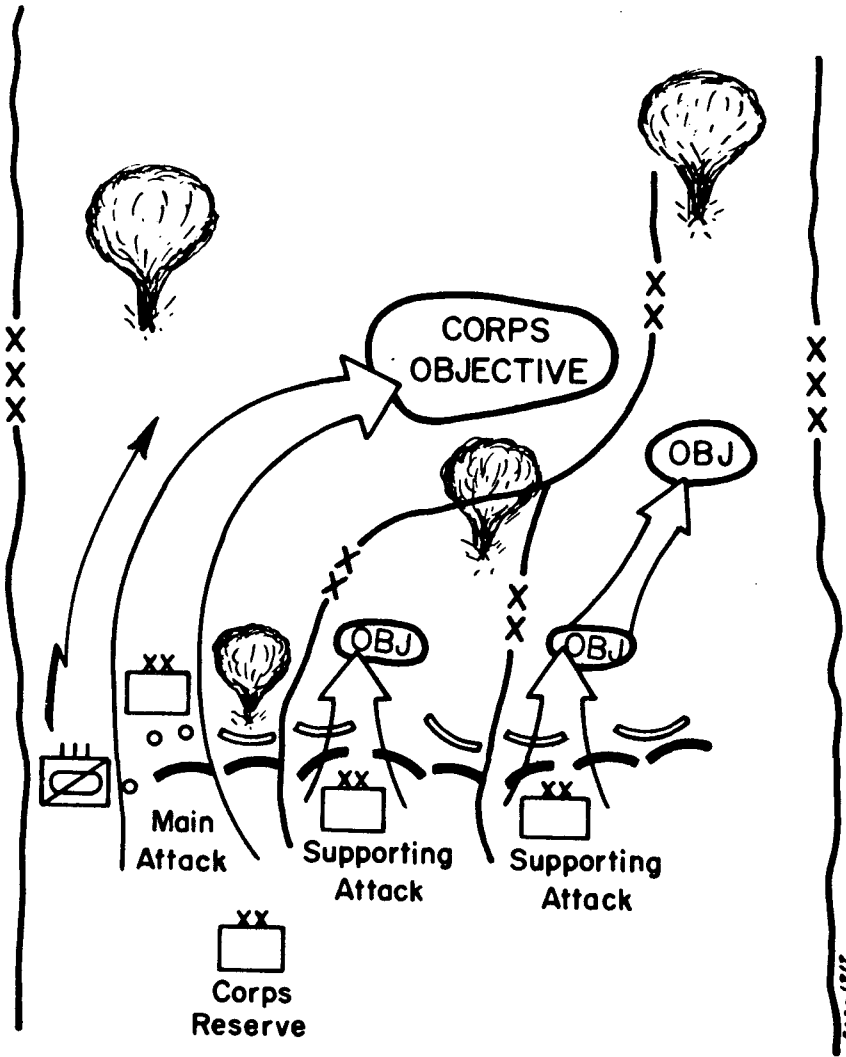


Figure 11. (Superseded) Division making an envelopment.

191. Control Measures

a. (Superseded) Control measures used in defensive operations include boundaries, coordinating points, fire control measures, and designated assembly areas for the reserve (figs. 16 and 17). Additional control measures used in the counterattack are discussed in paragraph 194.

b. The FEBA **may be** shown on the map or overlay as a dashed line connecting coordinating points and representing a general trace of the forward edge of forward defense areas. When corps designates *** a river line.

* * * * *

d. Coordinating points are *** between adjacent units. Coordinating points are indicated whenever a boundary crosses the FEBA **and the trace of the GOP or division covering force.**

* * * * *

194. Counterattack Plans

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b. Counterattack plans are *** avenue of approach. **Major factors involved in visualizing the assumed enemy penetration are the force the enemy may employ on the avenue of approach; the use of terrain in the area of the penetration; the capability of the fixing force to control the limits of the penetration; and the responsiveness, strength, and composition of the reserve.** The priority for *** the division mission.

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d. The division counterattack plan will normally include:

* * * * *

(2) *Control measures* (figs. 18 and 19).

(a) *Line of departure (LD)*. (Superseded) A line of departure is prescribed for planning and rehearsal purposes. It is selected on the basis of assumed locations of the fixing force limiting the penetration and the location of easily identifiable terrain features. Upon execution, the LD may be designated as friendly forward dispositions (FFD).

(b) *Objective*. (Superseded) The division assigns a single terrain objective to a counterattack force. The objective should contribute to the overall intent of the counterattack, which normally is the destruction of the enemy force.

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(d) *Boundaries*. (Superseded) It is desirable to make as few changes as possible to existing boundaries. Boundaries are redetermined, as necessary, to control the passage and maneuver of the counterattacking force and to assist in the

control of fires during the counterattack. Units of other forces within the boundaries of the counterattacking force support the passage of the counterattack force or, when required, are attached to the counterattack force. If the counterattacking force is to have the responsibility for areas under friendly control prior to passage, the boundaries are extended from the edge of the penetration into the friendly area.

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200. Counterattack in the Mobile Defense

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k. (Superseded) Often the division can best gain time for employment of the corps reserve by counterattacking. However, in the case of strong enemy penetrations, the division commander must consult the corps commander before committing all of his reserve in a counterattack.

214. Defense Against Guerrillas

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d. Additional information on defense against guerrilla action is contained in FM 31-15, FM 31-21, FM 100-5, and paragraphs 293 through 295.

216. Area Damage Control

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c. (Superseded) The division support command commander is responsible for detailed planning and execution of area damage control for combat service support units, installations, and essential routes located in the division rear area. He is also responsible for insuring that the support command area damage control plan conforms to the overall division plan.

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220. Basic Considerations

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e. Combat Service Support.

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- (3) Medical evacuation is expedited during retrograde operations. Aeromedical evacuation **service is normally** provided by field army **units**. When such units *** to the maximum. **The decision to abandon casualties is a command decision. If patients are abandoned, the commander must, as far as military considerations permit, provide appropriate medical care for them.**

* * * * *

- (5) **Combat service** support units and installations are located well to the rear during retrograde operations. Such locations assist *** of combat units. Details on **combat service** support are contained in FM 54-2.

* * * * *

225. General

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i. (Superseded) Nuclear fires, to include ADM, may be used by the division to inflict casualties; to create obstacles to enemy movement, to entrap, confine, or canalize the enemy; and to deny him use of major facilities. Areas where ADM are to be employed should be kept under observation to insure that detonation occurs at the appropriate time.

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235. Command

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b. Commanders at all *** of the plan. Specific area and route reconnaissance within their **zones** must be made by each subordinate commander. Priorities of withdrawal *** units are established.

c. Responsibility for control of the **zone** is passed from the withdrawing commander to the commander assuming responsibility for the zone at a place or time mutually agreed upon by the two commanders. This passing of *** a specific hour.

255. General

a. Army divisions participate *** include preparatory training. **FM 31-11 sets forth basic joint doctrine governing the planning for and conduct of amphibious operations.**

* * * * *

256. Organization for an Amphibious Attack

For an amphibious *** the landing force.

* * * * *

c. *Organization of Shore Parties.* (Superseded) A shore party is a task organization of the landing force formed to facilitate the landing and movement of troops, equipment, and supplies over the beaches; to evacuate casualties and PW from the beaches; and to facilitate the beaching, retracting, and salvaging of landing ships and craft. It is comprised of elements of both the naval and landing forces. Specialized engineer shore assault units provide the command and control elements for the shore party. These units also furnish engineer personnel specifically trained for shore party operations and provide equipment suitable for beach development and expansion tasks. Other nondivisional units

are attached to shore parties as dictated by operational requirements. Shore parties are usually attached to each assault echelon of the division when these echelons have the responsibility for establishing or operating a beach support area. The attachment terminates when the division shore party headquarters lands and assumes control of all shore party operations.

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259. Air Transportability of the Division

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b. (Superseded) The majority of the infantry division's equipment is air transportable in Air Force medium and heavy transport aircraft. Exceptions are tanks, tank recovery vehicles, the armored vehicle launched bridge (AVLB) and certain other items of engineer heavy equipment, and fixed wing aircraft. If within range, organic aircraft may be flown into the airhead. The infantry division when appropriately tailored, is well suited to participate in joint airborne operations in the air landed role.

* * * * *

261. General

a. (Superseded) An airmobile operation is one in which combat forces and their equipment move about the battlefield in aerial vehicles, under the control of a ground force commander, to engage in ground combat. The size of an airmobile operation is contingent upon availability of aircraft. Such an operation may vary from one involving the use of a squad to one involving one or more battalions. The type and weight of organic equipment in the airborne and infantry divisions make the combat and combat support elements of these divisions more suitable for battalion and larger airmobile operations than equivalent elements of the mechanized and armored divisions.

* * * * *

263. Planning

Planning procedures for airmobile operations are discussed in detail in FM 57-35.

a. To act quickly *** may be used:

- (1) Scheme of ground maneuver, including linkup **or** withdrawal.
- (2) (Superseded) Flight route diagram (including, as appropriate, loading areas, air control points, initial points, release points, landing/drop zones, times between control points, and primary and alternate routes). When an air movement plan annex is not prepared, the flight route diagram may also show altitude and speed.

* * * * *

285. Defiles

(Superseded)

a. Defiles are natural or artificial terrain features which canalize movement. A mountain pass, a gap through a minefield, routes through a large city, a river-crossing site, a bridge, and an area between two radioactive areas are examples of defiles. Major forces passing through a defile are particularly vulnerable to air and nuclear attack, Suitable air defense measures must be provided from sources outside the division.

b. A thorough reconnaissance must be made and consideration given to all possible routes. Provisions must be made to insure that the flow of traffic is rapid and uninterrupted. This often involves the use of highly mobile forces, including airborne and airmobile units, to reconnoiter the defile and establish suitable security in, or on, its flanks and at its exit. Units must plan in advance to move directly into the attack position upon clearance of the defile. Since a defile is a prime enemy target, deception measures will serve to hide the real intentions and facilitate successful passage.

c. Close command supervision and absolute control of traffic must be exercised to prevent inadvertent concentration of the division in the defile area. A defile commander is specifically designated by the major unit commander for each defile. He is vested with authority to exercise absolute control of the traffic entering and within the defile area to insure that the passage is properly executed.

286. Northern Operations

* * * * *

b. The division, when *** and special equipment. **The seasonal exchange of large amounts of organizational and individual equipment in the fall and spring presents a major logistical problem. Uninterrupted tactical operations demand careful planning for gradual exchange and storage of this equipment, and for scheduling shipments compatible with the tactical situation.**

* * * * *

Section XIII, add to title: and Operations Against Irregular Forces.

295. Operations Against Irregular Forces

* * * * *

b. *Employment of Divisional Units in Operations Against Irregular Forces.*

* * * * *

(7.1) *Engineer Battalion.* (Added) The engineer battalion is particularly useful for employment in this type of operation. Engineers may be assigned as an integral part of the combined arms team or may, under extreme conditions, be assigned to

operate as a separate force. Their use is of particular value in road maintenance and in the opening of new trails.

* * * * *

299. Control and Coordination

* * * * *

d. Rescinded.

304. Preparation for the March

Proper organization for *** the division SOP.

* * * * *

d. (Superseded) Designate the start point (SP) and release point (RP).

e. (Superseded) Reconnoiter the route to the SP.

* * * * *

317. March Liaison

a. Each march unit and serial establishes liaison with the preceding element in the column before crossing the **SP**. The liaison agent *** fatigue to personnel.

* * * * *

323. Control

a. The division commander *** in the order:

(1) The **start** and other critical points.

* * * * *

330. Responsibilities

* * * * *

b. (Superseded) The responsibilities of the unit being moved are the same as set forth in paragraph 326*b*.

APPENDIX III
STANDING OPERATING PROCEDURES

(Superseded)

Section I. GENERAL

a. A Standing Operating Procedure (SOP) is a set of instructions, having the force of orders, which cover those features of operations that lend themselves to a definite or standardized procedure without loss of effectiveness. The procedure is applicable unless prescribed otherwise in a particular case.

b. Standing Operating Procedures state the desires of a commander with respect to the conduct of routine and recurring operations of his command. Thus, they reduce the amount of detail required in orders. They may include policy, guidance, areas of special emphasis, and expedient measures. Content will vary with the type organization, level of command, the state of training of the unit, and the desires of the commander.

c. Section II contains sample Standing Operating Procedures for the combat operations of army divisions. SOP items applicable to all army divisions are contained in Annexes A through J. Items which have special application to the operations of an airborne division are included in Annex K. The sample SOP provides additional background on the nature of division operations. While it is based on current doctrine, it is not intended that it will establish doctrine.

Section II. SAMPLE OF STANDING OPERATING PROCEDURES

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Division
FORT LEAVENWORTH, KANSAS
1 Sep 19____

STANDING OPERATING PROCEDURES

No. 3

COMBAT OPERATIONS

I. GENERAL

- A. Purpose. This SOP standardizes routine recurring operational and combat service support procedures within the division and applies except when modified by division order.
- B. Conformity. Subordinate unit SOP's will conform.
- C. Organization.
 1. The following major tactical groupings will normally be used.
 - a. 1st Brigade.
 - b. 2d Brigade.
 - c. 3d Brigade.
 - d. Division Troops.
 - e. Support Command.
 - f. Division Artillery.
 2. Division major command installation. (The echelon in which the commander is located or from which he operates is designated the CP.)
 - a. Division tactical (Command Group) (when established). Commanding General; aides; G2, G3, division artillery representative, signal representative; other staff officers as Commanding General deems necessary; Military Police security escort, and operating personnel.
 - b. Division main. (Includes personnel in tactical CP when latter is not operating separately) Commanding General; aide, Chief of Staff; G1, G2 (and special teams), G3, G4, G5 sections; TOC: Headquarters commandant; chemical, engineer, army aviation, provost marshal, signal, chaplain and surgeon sections; Liaison officers; command operation company (-), signal battalion; Adjutant General and Military Police detachments.
 - c. Alternate Headquarters (alternate TOC). Assistant division commander; aide; others as designated.
 - d. Rear echelon. Administration company; information, inspector general, staff judge advocate, finance, and Adjutant General section; replacement detachment, and rear echelon operations platoon, signal battalion.

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D. Combat Orders and Distribution.

1. Operation orders limited in distribution to major subordinate command, separate task force, battalion and separate task force, battalion and separate company. Others informed by commander or liaison officer.
2. Distribution A, when used, includes—
 - Corps or army
 - Attached units
 - Supporting units
 - Adjacent units
 - Each brigade
 - Each battalion, squadron, and separate company
 - Division artillery
 - Support command
 - Each general and special staff section
 - File
3. Division signal officer will assign message reference number for combat orders, annex, appendix, tab, and inclosures thereto. When annex, appendix, tab, or inclosure is to receive the same distribution and be issued at the same time as the basic order, it will bear the same message reference number. When annex, appendix, tab, or inclosure is to receive a different distribution or be issued before or after the basic order, it will bear a separate message reference number.
4. Major subordinate command deliver two copies of operation orders to G3:

II. COORDINATION OF TACTICAL OPERATIONS

A. Command and Control.

1. Command posts.
 - a. Major units select and report location and time of opening and closing. Report location of CP airstrips with each change in CP location.
 - b. During move headquarters remain operational.
 - c. To reduce the possibility of multiple loss of major headquarters as a result of enemy use of nuclear weapons, major command headquarters maintain a minimum of 5,000 meters distance from each other.
 - d. When a headquarters facility has been destroyed or neutralized, the senior surviving officer within the command will assume command and move to a new headquarters facility.

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- e. Surviving staff personnel of a headquarters which has been destroyed or neutralized will move promptly to the new headquarters.
 - f. In the event of the destruction or temporary neutralization of division main, in the absence of specific instructions, division command facility will be reestablished by following headquarters in accordance with the sequence in which they are listed:
 - (1) Division alternate.
 - (2) Headquarters uncommitted brigades (in order of seniority of commanders).
 - (3) Headquarters, division artillery.
 - g. Major subordinate command will establish sequence of alternate command facilities and report to division.
2. Liaison and coordination.
- a. Chief of Staff establishes liaison officer facility.
 - b. Liaison officers from brigades, support command, separate battalion, and squadron and attached combat units not attached to subordinate command report to Chief of Staff prior to march or combat operations.
 - c. From supporting unit to supported unit, from subordinate unit to headquarters to which unit is attached, and laterally between units from left to right. Division flank units will establish and maintain liaison with adjacent parallel headquarters.
 - d. G3 will provide a situation map for liaison officer.
 - e. Coordinate feints, demonstrations, and ruses with this headquarters.
3. Signal communication.
- a. General.
 - (1) Report immediately loss or compromise of current SSI or SOI to both G2 and division signal officer.
 - (2) Responsibility for establishing signal circuits: higher to lower, left to right, and supporting to supported, unless otherwise specified by division order.
 - (3) Annex H, (Signal).
 - b. Radio.
 - (1) Radio restricted (netting and flash or operational immediate message permitted) when radio relay or wire communication established.

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- (2) Listening silence (transmitter turned off; receiver on) or radio silence (transmitter and receiver turned off) when prescribed.

B. Intelligence.

1. Prisoners of war.

- a. Capturing units tag and interrogate PW (to include wounded) briefly for information of immediate necessity and identification. PW found to have any knowledge of enemy nuclear, chemical, or biological activity will be segregated and reported to G2 immediately. All other interrogation by IPW teams at division PW collecting point and division clearing station.
- b. PW will not eat, smoke, drink, or rest prior to arrival at division PW collecting point, except when such treatment would be inhumane.
- c. Enemy officer, field grade or higher, to division PW collecting point without delay.
- d. Report immediately to G2 capture of enemy aircrews and guided missile, chemical, biological, and nuclear weapon personnel.

2. Captured documents. Cryptographic material and documents containing information on nuclear, chemical, and biological weapons delivered immediately to G2. Other documents through S2 except as below. All documents marked with date, time and place found or captured, including name and rank of PW. Documents found on PW carried by prisoner's escort to division collecting point. Technical documents found with captured equipment kept with equipment.

3. Technical intelligence.

- a. Reports: Report of new or unusual enemy equipment, armament, nuclear material, or CB agents forwarded immediately to G2 with brief description. Enemy material related to nuclear warfare evacuated only to avoid recapture. Captured or crashed enemy aircraft reported immediately to G2 and guarded by discovering unit.
- b. Captured materiel evacuation: Captured enemy materiel will be evacuated to nearest maintenance collecting point. Maintenance collecting point report receipt of materiel to division G2 and request disposition instructions.
- c. Captured enemy material of new type or which may indicate new tactics or procedures or items suspected of being

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- dangerous, promptly reported by capturing unit, inspected by technical intelligence team, and evacuated as directed by technical intelligence team.
4. Maps and terrain models. Requisitions in excess of prescribed allowance to support command (supply and transport battalion) through G2.
 5. Weather. G2 obtains and disseminates weather reports to division staff and to major subordinate commands.
 - a. Normal weather reports will be furnished twice daily or as deemed necessary for operations.
 - b. Special reports:
 - (1) Aviation weather forecasts for division area and flight routes every six hours.
 - (2) Reports every 2 hours to include winds and other data required for nuclear weapons employment and fallout prediction.
 - (3) Severe weather warnings accompany 2 hour reports or are broadcast as spot transmissions during intervals between reports.
 6. Reconnaissance.
 - a. General.
 - (1) Flash message: Use flash message report for approach of enemy armor, aircraft, naval or amphibious landing craft, airborne troops, or enemy nuclear or CB attack. Include number, type, location, direction of movement, speed, altitude (if applicable), time observed, and identification of observer. For nuclear flash message report, see Annex C, (Actions to Minimize Effects of Enemy Nuclear Attack).
 - (2) Report immediately—
 - (a) Known or suspected enemy troop concentrations which may be suitable for nuclear attack, or indication of their existence or development.
 - (b) Enemy countermeasures including, but not limited to, issue of special protective clothing to troops in forward area, construction of unusually deep or covered foxholes, or special shelters defiladed in rear of forward positions.
 - (c) Indication of enemy use of nuclear weapons, such as presence of special troop units in area, registration of heavy artillery, limited withdrawal of forward units without any apparent tactical

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reason, use of smoke cover on own forward troops, use of missiles with HE warheads.

- (d) Effect of our nuclear weapons. Estimated enemy casualties, equipment, and vehicles destroyed or rendered unusable, extent of area affected, and any obstacles to our movement created. Air or surface burst and estimated ground zero.
- (e) First contact with enemy; initial enemy artillery fire and marked change in volume of artillery fire; changes in enemy dispositions, includes changes of company or larger units, counter-attack indications, and change in enemy combat attitude; loss of contact; initiation of hostile attack, identification of new enemy units; location of barriers, enemy minefields, demolitions, obstacles, and other defensive works, information on CB activities; known or suspected espionage, sabotage, or subversion.

b. Ground.

- (1) Night patrol plans to G2, as initiated, but not later than 2 hours before EENT.
- (2) Constant surveillance of enemy activities and movement maintained by ground electronic units. Report location of observation posts and radar and primary sectors of ground radar sets to G2.
- (3) SHELREP, MORTREP, TOXREP and BOMREP to nearest artillery headquarters immediately.

c. Air.

- (1) Requests. Air requests for preplanned visual and photographic reconnaissance submitted to tactical air support element TASE by 1900 hours daily. Immediate aerial reconnaissance requests may be submitted at any time.
- (2) Reports.
 - (a) Major subordinate commands forward organic aviation visual aerial reconnaissance reports to G2 air.
 - (b) Pilot and observer personnel, regardless of the type mission flown, report to the TASE any intelligence observed while in flight.

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- (3) Briefings and debriefings.
 - (a) Pilots, observers, or aerial photographers will be briefed and debriefed by a representative of G2 air at division airfield.
 - (b) Requesting units be prepared to assist G2 air representative in the briefing and debriefing of pilots, observers, or aerial photographers.
7. Counterreconnaissance and counterinfiltration.
 - a. Civilians. Civilians infiltrating through division zone or sector to or from enemy occupied territory apprehended and turned over to Counter Intelligence Corps.
 - b. Unoccupied areas. Unoccupied areas reconnoitered periodically, employing ground or air patrols as appropriate. Maximum use made of ground surveillance equipment.
 - c. Night illumination. See Annex A, (Fire Support Coordination).
8. Counterintelligence.
 - a. Units check evacuated installations, bivouac, and assembly areas to insure no classified or identifying material left in area.
 - b. Pass system established in conformity with division security plan. Control measures and guard system inspected and tested frequently.
 - c. CP and directional signs use assigned code titles.
 - d. Known or suspected loss or compromise of codes or other classified material will be reported immediately to G2.
 - e. Communication security: compliance with current SOI and SSI.
 - f. Daily aerial and ground visual or photo checks by all units to determine effectiveness of camouflage measures.
 - g. Security instructions for nuclear weapons and delivery will be coordinated by the TOC in the operation and counterintelligence plans.
 - h. Recovery of any friendly personnel specially trained in nuclear warfare will be reported to G2 without delay.
 - i. Suspected enemy agents will be reported immediately to G2.
 - j. Recovered US or Allied military personnel claiming to have escaped from the enemy or evaded capture behind enemy lines will be evacuated immediately to division medical facilities and reported to division G2 for interrogation on a priority basis.

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- k. Surrender of sizable number of enemy personnel or marked decrease in the combat effectiveness of enemy troops or units as a result of friendly use or threatened use of nuclear weapons will be reported to G2 without delay.
- 9. Elements isolated behind enemy lines.
 - a. Elements isolated behind enemy lines take all measures to defend against enemy or friendly conventional, chemical and nuclear fires. Enemy forces will be attacked by appropriate means regardless of their proximity to isolated friendly units.
 - b. Using methods prescribed in Annex B, (Methods of Reporting Location of Units), and current SOI, report locations, strengths, available communications equipment, maps available, and status of supply to parent headquarters.
 - c. If designated as a stay-behind force, switch to frequency prescribed in stay-behind order.
- C. Procedures.
 - 1. Fire support coordination. See Annex A, (Fire Support Coordination).
 - 2. Security. Division G3 coordinates defense against enemy ground, air, and airborne attack. Each unit responsible for own local security. G3 supervises rear area security. G4 supervises area damage control. Support command commander coordinates and executes rear area security and area damage control plans of that portion of the rear area essential to the efficient functioning of combat service support units. Additional security for protection of division nuclear delivery units to be provided as required; requests to G3.
 - 3. Development of the situation. Units reconnoiter and clear resistance within capabilities. Reconnaissance and security elements habitually locate obstacle bypass for heavy vehicles.
 - 4. Tactical operations.
 - a. Contact maintained left to right, from supporting to supported units.
 - b. Tactical air support. Requests for preplanned missions submitted to TASE not later than 1900 on the day prior to the desired activity.
 - c. Unit progress. After contact with enemy, units report location of elements every two hours, upon reaching assigned objective, or crossing designated phase line or checkpoint.

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- d. Employment of nuclear weapons.
- (1) Nuclear allocation announced in the operations order. Allocation to commander is authority to fire. Weapons larger than Davy Crockett normally retained at division. Davy Crockett normally allocated down to battalion or squadron.
 - (2) Authority to fire nuclear weapons retained by commander or designated representative.
 - (3) Nuclear safety lines (NSL) and individual protective or other restrictive measures included in coordination instructions in operations order.
 - (4) Risk criteria, unless otherwise directed by Division Commanding General, negligible risk for unwarned, exposed troops.
 - (5) Tactical damage assessment by ground and air OP reported within 10 minutes following strike giving:
 - (a) Approximate location actual GZ.
 - (b) Whether fallout was produced.
 - (c) Location of significant obstacles.
 - (d) If known, estimated enemy casualties, equipment and vehicles destroyed or rendered unusable, and extent of area affected.
 - (6) Appendix 1 (Nuclear Strike Warning) to Annex A (Fire Support Coordination).
- e. Engineer. Report immediately to the engineer element of the TOC the location of own and enemy minefields and other barriers and obstacles to include prepositioned nuclear weapons on standard Department of Army report forms by most expeditious means available.
- f. Chemical and Biological. See Annex D, (Actions to Minimize the Effects of Enemy Chemical and Biological Attack), for defensive measures. Offensive use only on order of division commander.
- g. Smoke. See Annex A, (Fire Support Coordination).
- h. Defense against air attack.
- (1) Aircraft fired on only when hostile markings are plainly visible or when aircraft commits hostile act.
 - (2) Maintain dispersion of vehicles and ground installations at all times.
- i. Bomb and shell disposal. Units mark location of dud shells and bombs and report location to division support command in six number coordinates. Use flash message

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report for suspected dud nuclear weapon. Establish safety precautions.

- j. Actions to minimize effects of enemy nuclear chemical and biological attack, see Annexes C and D.

D. Techniques.

1. Orders.

- a. Fragmentary orders normal during operations. Maximum use of overlays, tables, and charts. Written orders when time permits and for record.
- b. Nuclear fires will be planned and target analysis will be prepared in division Fire Support Element (FSE) of TOC, based on applicable portions of corps plans, weapons allocated to division, and instructions from division G3. Necessary information will be included in appropriate annexes to plans and orders (fire support, air support, barrier, etc.).
- c. Warning order to own troops for friendly nuclear and chemical attack:
 - (1) Time of attack for scheduled fires will be disseminated in the OPORD and appropriate fire plan. Procedures for warning of on-call fires and fires on targets of opportunity see Appendix 1 to Annex A, (Fire Support Coordination).
 - (2) Postponement of nuclear and chemical attacks. Transmit in clear by fastest communications means available the message "Tarry, target number _____, instructions later" followed by transmission of appropriate instructions.

2. Reports. The following reports will be submitted by major commands, separate task force, and separate units:

a. Intelligence (par. IIB).

<u>Report</u>	<u>How submitted and precedence</u>	<u>Time</u>
Flash message report all types	By expeditious means—flash	At once
BOMREP, SHELREP, and MORTREP	Radio, radioteletypewriter, or telephone—operational immediate	At once
ISUM	Radio, radioteletypewriter, or messenger—routine	As of 0600, 1200, 1800, and 2400 daily

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<u>Report</u>	<u>How submitted and precedence</u>	<u>Time</u>
Radioactive and toxic contamination	By expeditious means— operational immediate	At once
b. Operations.		
Unit progress report	By expeditious means— operational immediate	See par. IIC4c
Loss of contact with friendly units	By expeditious means— operational immediate	At once
SITREP	Message form—routine	As of 1800 daily; reach division headquarters by 2200 daily
Command report (to include intelligence, operations, logistics, civil affairs, and personnel)	Formal written report— routine	As of 2400 end of each month by 5th of following month

E. Special considerations.

1. Actions to minimize effects of nuclear attack. See Annex C, (Actions, to Minimize Effects of Enemy Nuclear Attack), with Appendices 1, 2, and 3.
2. Fallout, radiological monitoring, and survey. See Annex E, (Prediction of Fallout, Radiological Monitoring, and Survey).
3. Army aviation. See Annex G, (Army Aviation).
4. Chemical and biological operations. See Annex D, (Actions to Minimize the Effects of Enemy Chemical and Biological Attack).
5. Mobility.
 - a. March organization. Division moves in march column (multiple routes when available) preceded by reconnaissance element, normally in five major march serials; three brigades, division troops, and support command. Maximum use of darkness.
 - b. Control. March serials provide own security. Prior reconnaissance (routes and assembly areas); traffic control; guides; and posting and removing route markers are responsibility of serial commander, supplemented (for main routes) and coordinated by division. Report hourly location of heads of march serials. Annex B, (Methods of Reporting Location of Units).

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- c. Priority. Nuclear delivery units, tactical troop movements, ambulance, ammunition vehicles, construction crews, staff cars, and messenger vehicles.
 - d. Density and rate.
 - (1) Night. Close column 20 meters between vehicles, (density 75 vehicles per mile) at average speed 10 MPH. Maximum speed 15 MPH.
 - (2) Daylight. Open column 75 meters between vehicles (density 20 vehicles per mile) at average speed 15 MPH. Maximum speed: wheel, 25 MPH, track, 20 MPH.
 - (3) Infiltration. Irregular dispatch, 3 vehicles per mile at 12 to 20 MPH.
 - (4) Time interval. Company is the basic march unit. Time interval between company march units, 2.5 minutes, between battalion march serials, 5 minutes; between major march serials, 15 minutes.
 - e. Halts. Halt time stated in march order based on 15 minutes after each $1\frac{3}{4}$ hours of march. Keep road clear. Commander determine cause of all unscheduled halts and take appropriate action. Refueling halts are prescribed. Crews make maintenance check. Disabled vehicles display yellow flags.
 - f. Lights. Blackout forward of army light line. Use of infrared authorized.
 - g. Passing. Only when column is halted, except control, reconnaissance, general officer, messenger, medical vehicles, and vehicles displaying red emergency flags. Convoys pass only on permission of halted column commander.
 - h. Vehicle marking. Lead vehicle of serial carry blue flag. Rear vehicles in serial carry green flag.
 - i. Accidents. Officers at tail of each march unit investigate and take necessary action.
 - j. Guards. Air guards in all vehicles. Traffic guards will be posted at head and tail of each halted march unit.
6. Barriers and division blocking positions. Responsibility for preparation announced in operations order. Responsible units submit barrier plan, overlays, and schedules to G3. Minefields reported on DA Form 1355 (four copies) to engineer.

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III. COORDINATION OF COMBAT SERVICE SUPPORT OPERATIONS

- A. General. Brigades, separate battalions (squadron) and separate companies receive combat service support from units/installations as follows:
1. Each brigade and its attached and supporting units will be supported by the following units/installations located in/near the brigade trains area:
 - a. Division support command.
 - (1) Forward support company of the maintenance battalion.
 - (2) Division forward distributing points for classes I, III and fast moving II & IV supplies. (In the airborne division this subparagraph may also direct the establishment of a class V forward distributing point. See Annex J, (Airborne Assault Operations).)
 - (3) A medical company which will establish one or two clearing stations.
 - (4) A graves registration collecting point.
 - (5) One or more bath teams.
 - (6) Forward maintenance and salvage collecting points.
 - b. Engineer battalion. One water point.
 - c. Military Police company (committed brigades only).
 - (1) One military police platoon.
 - (2) A prisoner of war collecting point.
 2. All other units will be supported from brigade trains area designated by the division G4 or the division support area.
 3. Brigade commanders will coordinate combat service support operations of attached units and movement, location and security of combat service support units/installations in brigade areas.
 4. Supporting and supported units have a mutual responsibility for informing each other as to locations of units/installations.
- B. Coordinating Agency. The Commanding Officer, support command, is the division logistical operator. Division staff sections and units will provide representation to support command as required. All report receiving agencies will maintain current information at the support command headquarters by direct communication and liaison.

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C. Techniques. Following reports will be submitted by battalion and separate companies.

1. Logistics:

Special logistic reports (status of major items of equipment minus vehicles)	Radio, radioteletypewriter, or telephone	When called for as of 1800 by 2200 to support command with information copy to G4
Combat vehicle status report	Radio, radioteletypewriter, or telephone	Daily as of 1800 by 2200 to support command with information copy to G4
POL status report	Radio, radioteletypewriter, or telephone	Daily as of 1200, by 1400 to support command with information copy to G4
Class I status report	Radio, radioteletypewriter, or telephone	Daily as of 1800, by 2200 to support command with information copy to G4

2. Personnel:

Personnel daily summary	Electronic accounting machine card	Daily as of 1800 by 2200 through G1 to AG
Casualty report	Electronic accounting machine card	Daily as of 1800 by 2400 to AG
Special strength report	Radio, radioteletypewriter, or telephone	When called for, through G1 to AG.

(In missing and missing-in-action cases, unit commander will suspend forwarding of report for a period of 6 days, during which time all possible sources of information will be checked to verify that the individual is actually missing.)

D. Detailed Considerations.

1. Logistics.

a. Coordinate through division support command. See paragraph IIIB.

b. Materiel and services.

(1) Supply.

(a) General. Unit distribution of class I, II, III, and IV by division to brigade or separate battalion trains area. Supply of class V by supply point distribution.

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- (b) Class I. Reserve, one ration, small detachment, in supply and transport battalion; three rations, individual combat for crew or personnel assigned to each vehicle. Supper ration cycle.
- (c) Class II and IV (except medical, repair parts, cryptographic, and electrical accounting). Units requisition through supply and transport battalion. Supply and transport battalion determine and maintain limited stocks of fast-moving items. Direct exchange items from supply and transport battalion. Requisitions for items in excess of allowances and regulated or critical items through command channels.
- (d) Class II and IV medical. Requisition through medical battalion.
- (e) Class II and IV repair parts. Requisition through maintenance battalion.
- (f) Class II and IV cryptographic supplies. Requisition through signal battalion.
- (g) Class III and IIIA. Issued on basis of empty tank truck, or container for container. Supply and transport battalion attach tank trucks to units as appropriate. Each wheeled vehicle carry minimum reserve of 10 gal; except $\frac{1}{4}$ -ton truck, 5 gallon. Individual vehicles refuel at any supply point on route.
- (h) Class V. Units maintain basic loads. Replace expenditures from ASP, or division Class V distribution point when authorized, on transportation order signed by division ammunition officer (DAO). Establish and replace special ammunition load on orders. Flame fuel mixing and service equipment operated by chemical corps personnel. Separate transportation order for nuclear and other special weapons cleared through DAO; firing unit provides transportation and security. Request for authority to exceed available supply rate to G4. Request for authority to stockpile ammunition in excess of basic load to G4, 24 hours prior to pickup time; request to be accompanied by transportation order for quantity in excess of basic load.

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- (i) Water. All water except that secured from engineer water supply point considered contaminated. Water purification tablets issued to individuals with rations.
 - (j) Salvage. Unit commanders responsible for collection and evacuation to nearest maintenance and salvage collecting point. Supply and transport battalion evacuates from collecting points.
 - (k) Captured materiel. See paragraph IIB3.
 - (l) Cannibalization. Controlled cannibalization is permissible within the provisions of AR 750-50.
- (2) Transportation.
- (a) Dispatch of six or more vehicles in convoy rearward of division support area requires clearance from division traffic headquarters.
 - (b) Requests for additional transportation to support command will specify number of persons or tonnage.
 - (c) Emergency supply by air. Requests for supply by air to support command, giving amount and identification of supply required, location and description of primary and alternate Drop Zone (DZ) or Landing Zone (LZ); date, time, and method of delivery (air-landed, airdrop, parachute); DZ or LZ identification, summary of enemy situation vicinity of DZ or LZ; location of forward dispositions, and SOI data.
- (3) Services.
- (a) General. Report location of logistical installations and unit trains to support command.
 - (b) Decontamination. Decontamination of areas, supplies, and equipment in a nuclear, chemical, or biological attack will be limited to those essential to operations and survival.
 - (c) Maintenance.
 - 1. General. Unit commander responsible for evacuation to axis of supply and evacuation or to forward support company maintenance and salvage collecting point. Support by forward support company includes all troops in immediate vicinity of supported brigade.

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Mobile repair teams will repair equipment on site or exchange as appropriate.

2. Signal (except cryptographic). Tag signal equipment for repair with unit designation and nature of trouble and notify maintenance battalion. Mobile repair teams repair equipment on site or exchange as appropriate. Repair of cryptographic equipment direct to signal battalion.

3. Medical equipment direct to medical battalion.

c. Medical evacuation and hospitalization.

(1) Medical battalion evacuates from unit aid stations. Units report location of aid stations to support command and nearest medical clearing station (medical company).

(2) Requests for aeromedical evacuation to division surgeon by most expeditious means.

2. Personnel.

a. Replacements. Requisitions by electronic accounting machine card submitted daily to AG as of 1800 by 2200. Upon request of brigade, battalion, and squadron commanders, AG assigns replacements direct to companies. Units receive replacements at replacement section, administration company, on notification by AG. Requisitions for unit replacements to G1.

b. Discipline, law and order.

(1) Personnel awaiting trial, except those requiring physical restraint, remain with their units while in combat.

(2) In occupied areas, Military Police have authority and jurisdiction and are empowered to enforce laws and regulations and make arrests within division area without regard to nationality, service, or civilian status, and to deputize any US military personnel to assist them.

c. Prisoners of war and civilian internees.

(1) PW evacuated by capturing brigade, battalion, or squadron to nearest brigade or division collecting point. PW evacuated from brigade collecting points by division.

(2) Wounded PW evacuated through medical channels.

(3) PM operates division collecting point.

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d. Graves registration (GRREG) service.

- (1) Commanders of all echelons responsible for collecting, identifying, and evacuating US, Allied, and enemy dead to GRREG collecting point. Mass burials only on instructions from division headquarters.
- (2) One collecting and evacuation section of the GRREG platoon (augmentation) supports each brigade. Division collecting and evacuating section supports division troops.
- (3) Isolated burials only when unavoidable. Report location of graves to support command.
- (4) Nonradioactive personal effects on body remain with deceased until arrival at cemetery.
- (5) Units properly identify and forward personal effects found in area to supply and transport battalion without delay.
- (6) Indigenous civilian dead interred by local civilians in accordance with local customs.
- (7) Remains and personal effects contaminated by nuclear or chemical effects not evacuated until decontamination completed.

e. Civilian personnel. When authorized to employ local civilian labor, requisitions will be submitted to division G1.

f. Morale and personnel services.

- (1) Leave and division rest camp quotas will be filled.
- (2) Decorations and awards.
 - (a) No quotas.
 - (b) Recommendations submitted by any person having knowledge of action of any other person. Time for processing kept at absolute minimum.
 - (c) All recommendations to division review board through channels.
 - (d) Presentation without delay at appropriate troop formation, which when practicable, include associates and eyewitnesses.
- (3) Unit mail delivery with class I supply (unit distribution).
- (4) Unit commanders arrange with finance section (through unit personnel section) for payment of troops, soldiers' deposits, and savings bonds.
- (5) Army exchange items distributed with class I supply.
- (6) Special services. Priority to combat troops.

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- g. Personnel procedures. Personnel receiving battlefield commissions will normally be assigned to own battalion or squadron and may be assigned to own company.
- 3. Civil affairs.
 - a. Internal affairs and government.
 - (1) Division retains responsibility for all CA activities in area except those specifically delegated to subordinate units.
 - (2) Units evacuate arrested civilians to division PW collecting point. Keep separated from PW.
 - b. Civil affairs units. CA units for designated communities called forward when capture of community is imminent.
 - c. Resources. Safeguard public works, utilities, fuel, and oil storage, or supply installations.
 - d. Logistical support.
 - (1) Maximum use of civilian resources for civilian relief, camps, control, and health.
 - (2) Minimum military support for civilian relief upon approval this headquarters.
 - e. Reports. Units immediately report to G5 capture of key civilian officials, national treasures, and stores of supplies.

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Annexes:

- A—Fire Support Coordination
- B—Methods of Reporting Location of Units
- C—Actions to Minimize Effects of Enemy Nuclear Attack
- D—Actions to Minimize Effects of Enemy Chemical, and Biological Attack
- E—Prediction of Fallout, Radiological Monitoring, and Survey
- F—Rear Area Security
- G—Army Aviation
- H—Signal
- I—Division Tactical Operations Center
- J—Airborne Assault Operation

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Annex A (Fire Support Coordination) to SOP No. 3

1. FIRE SUPPORT ELEMENT—TOC

- a. Composition. Chief of FSE, duty team chief, operations and intelligence representatives from division artillery; naval gunfire officer (NGFO); liaison officers from fire support agencies as required.
- b. Location, TOC, vicinity division main.

2. TARGET NUMBERING SYSTEM

- a. Division prefix. The letter "____" is assigned to _____ Division, as an identification prefix, for all targets designated by division agencies. (See Note 1 at end of this annex.)
- b. Unit prefixes. The following letter prefixes are assigned to fire support agencies. The originating unit or agency will assign a 3-digit number to each target, preceded by the two-letter prefix, (the division and the unit identification letters). Exceptions see enemy mortar and artillery location below.
 - A, B, C.....Lowest to highest numbered, 105 H Bns, respectively.
 - D, E.....155/8" Bn, HJ Bn, respectively.
 - F.....Division Artillery.
 - G.....Air.
 - H.....Naval gunfire.
 - J.....Division FSE.
 - K, L, M, etc....Attached units. Assigned by division FSE on attachment.
- c. Enemy artillery and mortar location.
 - (1) Enemy artillery locations are identified in the order and location by use of letters: AA (1st location), AC (3d location), BA (27th location). Confirmed locations will be followed by suffix "C."
 - (2) Enemy mortar locations are assigned a two-letter designation, preceded by the letter "M," assigned by division artillery, plus a second and third letter assigned alphabetically as the locations are identified: MAA (1st location), MAB (2d location), MBB (28th location). Confirmed locations will be followed by suffix "C."

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- d. Groups of artillery concentrations. Originating unit assign a number, preceded by division prefix and followed by originating unit's identification letter. (See note 2 at end of this annex.)
3. SAFETY
- a. Air safety. Planned restrictions on use of supporting arms during airstrikes controlled by division Fire Support Element (FSE) of TOC. Orders transmitted through fire support channels.
- b. Ground safety.
- (1) No-fire line.
 - (a) Reinforcing and general support artillery or naval gun-fire execute fire missions short of no-fire line only after clearance by direct support artillery of supported unit.
 - (b) Location is established by direct support artillery battalion commander in coordination with commanders of supported unit(s).
 - (2) Fire support coordination line.
 - (a) Effects of nuclear airstrikes, short of fire support coordination line only when cleared through division TOC and approved by higher headquarters.
 - (b) Nonnuclear airstrike short of fire support coordination line only when coordinated by division TOC which will specify whether Air Force control (visual or electronic) is desired.
 - (c) Establishment and change.
 1. System RED. Based upon recommendations of subordinate units (brigades or battalion level). Recommendations for fire support coordination line location or changes in location direct to FSE.
 2. System BLUE. Units send position reports giving location of leading troops and forecast future movement in code over air request net.
 3. TASE announces over air request net whether system RED or system BLUE is in effect.
 4. Changes in fire support coordination line disseminated by TASE over air request net.
 5. Air Liaison Officer notifies air support units.
 - (3) Nuclear safety line. Established by FSE. See paragraph IIC4d of SOP.
 - (4) Risk criteria.
 - (a) Nuclear troop safety will be negligible risk for unwarned, exposed troops.

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(b) Chemical troop safety will be negligible risk for unprotected troops.

4. OBSERVATION

- a. O-O line. Division artillery commander responsible for requests to corps for changes as required.
- b. Responsibility. Direct support artillery battalion responsible for observation in zone of supported unit; general support and supported artillery units observe as directed by division artillery commander; reinforcing units observe as requested by reinforced unit.

5. TACTICAL AIR SUPPORT (AF)

- a. TASE is responsible for informing requesting unit of final action taken on reconnaissance or offensive air support requests, respectively.
- b. Forward air controllers. Briefing at division TASE and subordinate unit. Disposition by TASE.

6. NAVAL SUPPORT

- a. Naval gunfire will be fired by direct support ship of the echelon concerned, using naval gunfire procedures. If additional naval gunfire support is required, it will be requested from next higher FSE through naval gunfire channels.
- b. Shore fire control parties will control and adjust naval gunfire; adjustment of naval gunfire by artillery forward observer in emergency only.
- c. Combat service support of naval parties by units to which attached.
- d. If air naval gunfire liaison company (ANGLICO) attached, ANGLICO channels through FSE will be employed for naval gunfire and control of naval air.
- e. Division artillery survey section responsible for necessary survey of naval gunfire radar beacon.

7. AIR DEFENSE ARTILLERY

- a. Air Defense Element. (ADE) of the TOC, responsible for restricting friendly air defense fires to insure safety of aircraft. Division Army Aviation Element (AAE), of the TOC, coordinate flight of division aircraft with ADE.
- b. TASE will inform ADE of all known air support or reconnaissance missions in division zone.

8. ARMY AVIATION

- a. One aircraft in air constantly in division zone or sector on observation or combat surveillance when flying conditions permit, coordinated by AAE.
- b. Unit requests for aircraft missions direct to AAE.

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9. SMOKE

When predicted effects may interfere with adjacent units, missions must be approved by FSE.

10. BATTLEFIELD ILLUMINATION

a. Requests for battlefield illumination will be processed through direct support artillery unit. Requests must be approved by division FSE except as indicated below.

- (1) No restrictions on illumination by organic weapons of combat unit.
- (2) Emergency illumination by artillery on authority direct support artillery battalion commander. Notification to division FSE by fastest means.

b. Decentralized control of searchlight and aircraft for battlefield illumination on division order only.

11. COMMUNICATIONS

a. Requests for nuclear fires from major command through command communication channels to division headquarters.

b. Communication nets for immediate air requests will be used in following priority:

- (1) Division air request radio net.
- (2) Wire or radio from artillery liaison officers through artillery command channels to FSE-TASE, TOC.
- (3) Other wire or radio.
- (4) Spot report receiver system (UHF-voice) in emergency only.

c. Immediate requests sent by electrical means are assigned a precedence of OPERATIONAL IMMEDIATE and are preceded by the words quote IMMEDIATE AIR REQUEST unquote. Message thus sent takes priority over other OPERATIONAL IMMEDIATE messages and those of lower precedence.

d. Combat units down to and including battalion and squadron headquarters will enter station in division air request radio net; net frequency to be announced; call signs in SOI.

12. NUCLEAR DAMAGE CRITERIA AND FALLOUT

a. Destruction—30 to 50 percent probable minimum coverage; 40 to 70 percent average coverage.

b. Neutralization—10 percent probable minimum coverage and 20 percent average coverage.

c. Target of unknown composition assumed to be protected personnel.

d. Point targets.

- (1) Single target element—90 percent assurance of success.
- (2) Small area target—40 to 70 percent average coverage.

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- e. All weapons will have a height of burst to assure a 99 percent probability ($P = .99$) of no significant fallout unless fallout is approved by CG. When fallout is authorized, predicted fallout pattern should lie within the zone of the commander employing the weapon. When significant fallout is predicted in adjacent zones, permission to fire will be obtained from the division commander.

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App: 1. Nuclear Strike Warnings

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Note 1: Ref par. 2a.

Division Prefix Letters			
Assigned by Next Higher Headquarters and Changed Frequently			
<u>Abn</u>	<u>Armd</u>	<u>Inf</u>	<u>Mech</u>
102d-D	23d-C	18-B	52d-A
	25th-G	19-F	53d-E
	26th-K	20th-J	54th-H
			55th-L
			56th-M
			57th-O

EXAMPLES:

2d target plotted by 155/8" Battalion of 20th Division: JD102

6th target plotted by lowest numbered 105 H Battalion of 52d Mechanized Division: AA106

Note 2: Ref par. 2d.

Example of Groups of Artillery Concentrations

3d group of concentrations originated by 1/42 Artillery Battalion of 52d Mechanized Division: A3C.

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Appendix 1 (Nuclear Strike Warnings) to Annex A (Fire Support Coordination) to SOP No. 3

1. PURPOSE

To establish procedures to warn personnel of nuclear on-call fires and nuclear fires on targets of opportunity.

2. REFERENCES

FM 101-31-1 and SOI.

3. ORGANIZATION

Organization for combat.

4. RESPONSIBILITIES

- a. G3 disseminates warning to subordinate and adjacent headquarters requiring warning.
- b. Warning passed through command channels on all available wire and radio nets.
- c. Units pass warning to supporting and attached units.

5. MESSAGE FORMAT

a. Message to battalion size and larger units.

- (1) Line 1. Proword indicating message is nuclear strike warning (see SOI Item ____).
 - (2) Line 2. Target designation.
 - (3) Line 3. Coordinates of desired ground zero (DGZ) (see SOI item ____).
 - (4) Line 4. Distance in hundreds of meters from DGZ within which it is unsafe to locate troops (in clear).
 - (5) Line 5. Distance in hundreds of meters from DGZ within which troops must take maximum protection (in clear).
 - (6) Line 6. Distance in hundreds of meters from DGZ within which troops must take at least minimum protection (in clear).
 - (7) Line 7. Distance in hundreds of meters from DGZ within which troops must protect eyes (in clear). This line blank for daylight attacks.
 - (8) Line 8. Time of burst (see SOI item ____).
 - (9) Line 9. Acknowledge.
- b. Message to company size and smaller units.
- (1) Line 1. Proword indicating message is nuclear strike warning (unit SOI).
 - (2) Line 2. Prearranged message directing the protective measures to be taken (unit SOI).

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(3) Line 3. Time of burst (unit SOI).

(4) Line 4. Acknowledge.

6. PROCEDURES

- a. Strike warning messages sent only to units likely to be affected by burst.
- b. Warning messages given FLASH precedence.
- c. Acknowledgement indicates notification of platoon size units.
- d. Weapons not to be delivered earlier than desired time of burst.
Backup weapon in event of first weapon failure fired within 15 minutes of desired time of burst.
- e. Personnel assume required degree of protection two minutes before desired time of burst. Remain protected two minutes after actual detonation. Remain protected 15 minutes after desired time of burst if weapon fails to detonate.
- f. New strike warning initiated if strike not delivered within 15 minutes of desired time of burst.
- g. Strike warnings passed to Air Force and Navy liaison officer not later than ____ minutes before burst. (Time to be developed based on guidance from higher headquarters.)
- h. Strike warning messages 10 minutes before burst transmitted in clear.

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Annex B (Methods of Reporting Location of Units) to SOP No. 3

1. TIME OF REPORTS

Every two hours or as phase line and/or checkpoints are reached.

2. STANDARD METHOD (NORMAL USE)

Checkpoint report. Procedure similar whether checkpoint location on routes of march, on phase lines, or general throughout area.

- a. Terrain features recognizable on the ground (towns, road junctions, stream junctions, hilltops, etc.) are designated by small circles and numbered. Area covered will normally extend at least 4,000 meters beyond division objective.
- b. Report by giving location or distance and direction from checkpoint and direction of movement.
- c. Checkpoints will be issued by G3 each time a complete OPORD is issued, or by fragmentary message.
- d. Brigade, battalions, squadron, and division artillery issued blocks of numbers for selection of additional checkpoints within their zones for subordinate units.

3. ALTERNATE METHODS (EMERGENCY OR AS DIRECTED)

- a. Coded map coordinates. Numerical coordinates are encoded to letters using SOI.
- b. Terrain code name. Similar to standard control checkpoint method, except that code names instead of numbers are used to designate terrain features.
- c. Ten square grid map code.

4. SECURITY

- a. If standard checkpoint overlay compromised:
 - (1) Report to G2 without delay.
 - (2) G3 will direct one or more of following be adopted:
 - (a) Prearranged number be added to or subtracted from number on checkpoint overlay.
 - (b) Issue new checkpoint overlay with checkpoint renumbered.
 - (c) Use one of alternate methods.

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- b. If one of alternate methods compromised, report fact to G2, and G3 will direct the issue of new code names of reference point(s), as applicable, or direct use of another method.

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Annex C (Actions to Minimize Effects of Enemy Nuclear Attack) to SOP No. 3

1. GENERAL

- a. This annex prescribes normal procedures for defense against and actions following enemy nuclear attack.
- b. See Appendix 3 (Area Damage Control) for actions required to avoid or minimize effect on combat service support operations.
- c. See Annex D (Actions to Minimize Effects of Enemy Chemical and Biological (CB) Attack) for procedures peculiar to CB operations.

2. PLANNING

- a. Units organize and designate personnel for control and assessment team (CAT) (app. 1).
- b. Units organize and designate personnel for rescue, labor, and decontamination squads (app. 2).
- c. Orders.
 - (1) Commanders concept habitually in sufficient detail to permit continued and, when necessary, independent action by subordinate units.
 - (2) Division designates emergency assembly areas or alternate positions within zone or sector. Use only on division order. Subordinate headquarters designates rallying points.
- d. Procedures.
 - (1) Predict own disposition at critical stages.
 - (2) Assume enemy nuclear attack against predicted disposition at point of maximum vulnerability.
 - (3) Evaluate effect on own troops.
 - (4) Determine actions to offset effect of enemy attack to continue mission. Prepare contingency plans to include essential draft OPOD and checklist of actions to be taken in chronological order.
 - (5) Predict fallout and effects.

3. OPERATIONS

a. General.

- (1) Priority of tasks subsequent to enemy nuclear attack.
 - (a) Capable units continue mission.
 - (b) Reestablish command and communication and implement monitoring plan.

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- (c) Determine and report remaining combat effectiveness of damaged unit(s).
 - (d) Reorganize damaged units.
 - (2) Alternate plans. Battalion size or larger units prepare, coordinate and keep current alternate tactical plans, including displacement and decontamination plans.
 - (3) Passive protective means.
 - (a) Units disperse and dig in when permitted by situation.
 - (b) Construct shelters in stabilized situation.
 - (c) Make maximum use of any shielding.
 - (4) Movement. Units make maximum use of night movement, multiple routes of march, and dispersion.
 - (5) Camouflage and deception means. Enforce camouflage discipline and use of natural concealment at all echelons. Coordinate deceptive means, including dummy installations, with division plans.
 - (6) CAT dispatched upon instructions from division G3 element, TOC.
- b. Actions immediately following nuclear attack (automatically without orders).
- (1) Individual and combat vehicle crews. Establish contact with immediate superior.
 - (2) Units.
 - (a) Turn on radiac instruments and start continuous monitoring.
 - (b) Report to next higher headquarters any element out of contact.
 - (c) Protective measures.
 - 1. Prepare for early movement.
 - 2. Displace as possible to avoid radiation hazard and continue mission.
 - (d) Avoid doses in excess of those in the operation exposure guide (OEG) furnished by higher headquarters.
 - (e) Report information relative to nuclear blast as shown in Appendix 1 (Nuclear Burst Report) to Annex E, (Prediction of Fallout, Radiological Monitoring and Survey) to SOP No. 3.
 - (f) All units report initial time of arrival and dose rate of fallout in area. Thereafter, report as directed to CBRE, TOC.

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- (3) Division Headquarters, division artillery, each brigade, division support command, infantry, tank, artillery, aviation, engineer, signal battalion, and squadron.
 - (a) When required, dispatch control and assessment team (CAT) and report action.
 - (b) Report Army aircraft immediately available for reconnaissance.
 - (c) Prepare to release attached and uncommitted combat elements.
- (4) Uncommitted units. Prepare for immediate movement.
- (5) Armored Cavalry Squadron. If not committed, provide one platoon with monitoring equipment available for immediate movement.
- (6) Aviation Battalion.
 - (a) Dispatch aircraft to vicinity ground zero to make preliminary damage assessment and to determine presence of a crater and radiological hazard.
 - (b) Initial observer report (par. 3b(2)(f)).
 - (c) Hold two utility helicopters at division airstrip for use by support command CAT.

c. Battlefield decontamination. See TM 3-220.

4. LOGISTICS

- a. Support. Units operating in damaged areas obtain required supply from nearest available source.
- b. Evacuation and hospitalization.
 - (1) Units accomplish maximum self-aid.
 - (2) Nonmedical personnel will assist in routine medical care and evacuation outside the unit's area of responsibility only on division order.
 - (3) Walking wounded will assist in evacuation of patients from affected area at direction of medical officer concerned.
- c. Transportation.
 - (1) Include alternate means of transportation, unit, and route priorities in all pertinent plans.
 - (2) Only vehicles engaged in, or supporting, area damage control activities or engaged in combat operations enter damaged area.
 - (3) Military Police Company establish additional traffic control posts as directed.
- d. Services.
 - (1) Decontamination limited to that essential to operations.

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- (2) Priorities for repair or reconstruction.
 - (a) Signal command transmission facilities.
 - (b) Medical facilities.
 - (c) Supply and vehicle maintenance facilities.
 - (3) Priority for engineer decontamination employment.
 - (a) Command and communication installations.
 - (b) Routes.
 - (c) Logistics including medical installations.
 - (d) Combat areas.
 - e. Miscellaneous. Commander or senior surviving officer responsible for damage control operations in own area.
- 5. PERSONNEL**
- a. Strengths. As soon as practicable, unit or CAT commanders forward following:
 - (1) Number and type of casualties.
 - (2) Effective strength of affected units.
 - (3) Loss of commanders, if applicable.
 - b. Replacements. Replacement detachment, administration company, insure that all incoming personnel are familiar with current doctrine and procedures for survival under conditions of nuclear warfare.
 - c. Discipline, law and order. Military Police Company—
 - (1) Prepare to establish Military Police patrols in rear of affected units, utilizing organic Military Police or other units as directed.
 - (2) Prepare to assist in establishment of emergency refugee collecting point. Execute on division order.
 - d. Graves registration. Mass burial only on order this headquarters.
- 6. CIVIL AFFAIRS**
- a. Develop and maintain current plans for control of civilian population in event of enemy nuclear, chemical, or biological attack.
 - b. Plan to establish emergency refugee collecting point. Execute only on division order.
 - c. Recommend measures to be taken by civil defense.
- 7. COMMAND**
- All units within division area may be assigned to damage control mission. Combat and combat support units on division order only. Combat service support units on order division support command commander.

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- Appendixes: 1—Control and Assessment Teams (CAT)
2—Rescue, Labor, and Decontamination Squads
3—Area Damage Control

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Appendix 1 (Control and Assessment Teams) (CAT) to Annex C (Actions to Minimize Effects of Enemy Nuclear Attack) to SOP No. 3

1. MISSION

Reestablish military control over elements hit by enemy nuclear and chemical attack. This is accomplished by—

- a. Reestablishing command and communications.
- b. Assessment of damage to unit.
- c. Rehabilitation of unit to continue mission.

2. ORGANIZATION

Division headquarters, division artillery headquarters battery, each brigade headquarters company, division support command headquarters, and each battalion and squadron form at least one CAT as follows:

- a. Senior off—commander. (May be technical service officer in division support command, otherwise, must be of an arm.)
- b. Medical representative (when available)—coordinate medical support, including air evacuation.
- c. Supply representative—determine extent of supply required.
- d. Engineer representative (when available)—determine engineer effort required.
- e. CBR team—determination of extent of residual contamination.
- f. Communications detachment—capable of replacing minimum communications at next lower echelon.
- g. Security element—capable of securing CAT.
- h. Transportation (including available Army aircraft)—capable of lifting CAT.
- i. Provost Marshal representative (when available)—traffic control in affected area.
- j. Chemical representative (when available)—initial determination of nature and extent of chemical contamination.

3. DUTIES

In priority—

- a. Move to damaged area without delay.
- b. Determine and report remaining effectiveness of damaged unit.
- c. If necessary, assume control of damaged units to restore command communications.
- d. Take action to resume unit's mission.

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- e. Request medical, engineer, aviation, and GRREG assistance required.
- f. As soon as practicable, report following:
 - (1) Number and type of casualties.
 - (2) Effective strength of damaged units.
 - (3) Loss of commander, if applicable.
 - (4) Location of CAT CP.
- g. Report (location, dose rate, time of reading) all radiation areas over 5 rad/hour and chemical contamination discovered in course of operation.

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Appendix 2 (Rescue, Labor, and Decontamination Squads) to Annex
C (Action to Minimize Effects of Enemy Nuclear Attack) to SOP
No. 3

1. LIGHT RESCUE SQUADS

- a. Each company, battery, or similar unit (except units furnishing heavy rescue squad or labor squad), will organize and have available for use one light rescue squad consisting of at least one NCO or specialist and six EM. Functions of squad include rescue of casualties (when removal does not involve use of heavy equipment), and administration of first aid when necessary. Medical items required to be furnished by medical battalion.
- b. Equipment for each light rescue squad will include—
- (1) Two trucks, $\frac{1}{4}$ -ton; or one truck, $\frac{3}{4}$ -ton.
 - (2) One pick.
 - (3) Two shovels.
 - (4) Two axes.
 - (5) Two cutters, wire.
 - (6) Radiacmeters, dosimeters, and chemical agent detection kit, as available.
- c. Squad will be used when necessary or as directed for rescue work. Rescue squad formed by combat units will normally be only for local use by commander thereof.

2. HEAVY RESCUE SQUADS

- a. Maintenance battalion and engineer battalion will organize and have available four heavy rescue squads. Each squad will consist of at least 1 officer and 12 EM. Each squad may be augmented as determined by unit commander in consideration of unit equipment, personnel available and work to be performed.
- b. Function of heavy rescue squad includes extrication of trapped casualties and salvage of materiel in damaged areas. Equipment for heavy rescue squad should include following items when authorized in TOE:
- (1) One truck, $2\frac{1}{2}$ -ton, and trailer, $1\frac{1}{2}$ -ton.
 - (2) Two bars, pry.
 - (3) One differential chain hoist, $1\frac{1}{2}$ -ton or 3-ton.
 - (4) Two snatch blocks with 1-in. manila rope.
 - (5) Two hacksaws.

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- (6) Two cold chisels.
- (7) Manila rope, 1-in., 300 ft.
- (8) Two hydraulic jacks.
- (9) One acetylene welding and cutting equipment.
- (10) Two hooks, grappling.
- (11) Four road flares.
- (12) Four crowbars.
- (13) One cross-cut saw.
- (14) Two picks.
- (15) Four shovels.
- (16) Two sledges.
- (17) Two hatchets.
- (18) Portable lights.
- (19) Four flashlights.
- (20) Four pair rubber gloves.
- (21) Two buckets.
- (22) Two wire cutters.
- (23) One truck, wrecker.
- (24) One bulldozer with transporter.
- (25) Radiacmeters, dosimeters, and chemical agent detection kit, as available.

3. LABOR SQUADS

- a. The support command, headquarters company and band, and the administration company will organize one labor squad each consisting of at least one officer and 20 enlisted men. Each squad will have two 2½-ton trucks and other equipment to include first aid equipment and other items as prescribed.
- b. Labor squad performs tasks which do not require specialized training or equipment. Such tasks include clearing debris by hand, search for casualties, evacuation of casualties, salvage of material, and decontamination. Labor squad may augment Military Police or remove military supplies from areas endangered by fire. Unexploded bombs and other dangerous materiel will normally be removed under technical supervision.

4. DECONTAMINATION SQUADS

- a. Each company, battery, or similar unit will train and have available an emergency decontamination squad consisting of at least one noncommissioned officer or specialist and nine enlisted men. Functions of squad include emergency decontamination of rescue personnel and equipment which may become contaminated from radiation, chemical, or biological effects.

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b. Equipment and supply for emergency decontamination squad should include following items. Equipment and supply, if not organic, will be furnished as required.

- (1) Shovels.
- (2) Radiacmeters and dosimeters, as available (survey meter and personnel monitoring instrument).
- (3) Chemical agent detection kit.
- (4) Brushes, scrubbing.
- (5) Gloves, rubber.
- (6) Two cans, corrugated, 16 or 32 gallon.
- (7) Bandage scissors.
- (8) Ten each protective field mask with authorized accessory, chemical agents protection and treatment set.
- (9) One rake.
- (10) Four brooms.
- (11) Rags, 20 pounds.
- (12) Two buckets, 14 quart.
- (13) One heater, immersion type.
- (14) One ax, single bit.
- (15) DANC, STB BPL, DS² and other decontamination materials as appropriate.
- (16) Soap, issue, 5 pounds.
- (17) Leather dressing, vesicant gas resistant, M-2, 10 cans.

c. Squad will be used when necessary or as directed to assist in recovery work.

5. MEDICAL TEAMS

a. Medical battalion organize and be prepared to dispatch three medical teams on 30-minute notice. Each medical team will consist of one medical officer, four senior aid men, four litter bearers, three ambulance orderlies, one light truck driver, four aid men, and five ambulance drivers.

b. Equipment and supplies for medical teams will include—

- (1) One ¼-ton truck with radio.
- (2) Five ambulances.
- (3) First aid equipment.
- (4) Medical equipment and supplies.
- (5) CBR contamination material as available.

6. CHAPLAIN TEAMS

a. Division chaplain designates three chaplain teams to be prepared to move into area on 30-minute notice. Teams will normally operate with medical teams.

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b. Equipment and supplies for each chaplain team will include:

- (1) One ¼-ton truck.
- (2) Ecclesiastical equipment.
- (3) CB decontamination equipment, as available.

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Appendix 3 (Area Damage Control) to Annex C (Action to Minimize Effects of Enemy Nuclear Attack) to SOP No. 3

1. APPLICATION

- a. The provisions of this appendix apply to all units and installations within the division area except as modified by current area damage control and operation plans.
- b. Division support command responsible for area damage control within the division rear area, exclusive of those areas occupied by combat or combat support units.
- c. Appropriate damage control measures will be as prescribed by division artillery, brigades, and each battalion sized unit for their respective areas and will be coordinated with division support command. Passive defensive measures will habitually be employed. Mutual assistance between units in the conduct of area damage control will be limited only by the requirement of the tactical situation.
- d. Support command units located in brigade areas will support brigade damage control operations as required.

2. RESPONSIBILITIES

- a. Division G4 is responsible for general staff supervision of damage control in division area. He coordinates overall plan and its implementation with G3 (including planned movement of units within division area) and with G2.
- b. Within division rear area, Commanding Officer, division support command, is responsible for—
 - (1) Preparation of area damage control plans. Plans include provisions for—
 - (a) Communications.
 - (b) Training and equipping labor, rescue, and decontamination squads by units within division support area, including specific instructions on where and when squad reports when plan is implemented.
 - (c) Employment of area damage control personnel including those from other units or installations in the division area.
 - (d) Emergency food, clothing, and water.
 - (e) First aid and evacuation of patients.

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- (f) Control measures to prohibit nonessential movement and to provide for rerouting of traffic to restrict access into damage control area except essential damage control personnel and units.
- (g) Instruments to survey, mark, and report all contaminated areas, using trained personnel from local units.
- (h) Assistance to other affected areas when directed.
- (2) Supervision and coordination of damage control when the area damage control plan is implemented.
- (3) Employment of damage control units, including their movement within the division rear area, when the area damage control plan is in effect.
- (4) Combat service support in coordination with G4 for area damage control.
- (5) Determine manpower and materiel needed for area damage control purposes.
- (6) Assistance to be provided by or to nondivisional units located within division support area.

4. MEDICAL EVACUATION AND HOSPITALIZATION

Division support command will coordinate with division surgeon for higher echelon medical service and evacuation necessary for damage control in the division area.

5. SUPPLY

Division support command will coordinate directly with appropriate units for necessary supply for area damage control and salvage operations.

6. TRANSPORTATION

a. Traffic control and regulation.

- (1) Only vehicles engaged in area damage control activities or in combat operations within the area will be permitted to enter and operate in the damage area.
- (2) Traffic will be controlled within the damage area by Military Police units.

b. Requirement for transportation. Requirements for transportation of damage control operations will be submitted to division support command.

7. PERSONNEL

PW confined in division area will be provided protection facilities and will be oriented as to procedures to be followed in case of nuclear attack.

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8. CIVIL AFFAIRS

- a. Maximum utilization will be made of civilian personnel, supplies, and facilities to support area damage control operations. Military support of civil defense operations will be provided only upon division order.
- b. CA units located within division area will provide liaison between all military headquarters and civil authorities and will coordinate the employment of civilian support for area damage control operations.

9. RECORDS AND REPORTS

- a. Periodic reports on availability of area damage control squads and other damage control services will be made by each organization and separate unit direct to G4 with information copy to Commanding Officer, division support command, as follows:
 - (1) Nonactive combat—as of last day of month prior to 1800 hr that date.
 - (2) Active combat—as of Friday of each week prior to 1800 hr that date.
- b. All units or installations moving within division area report departure, estimated time of arrival, and actual time of arrival to division traffic headquarters.
- c. Personnel entering damaged area to assist in reestablishing control will report to CAT.

10. SIGNAL COMMUNICATION

Current SOI and SSI in effect.

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Annex D (Actions to Minimize Effects of Enemy Chemical and Biological Attack) to SOP No. 3

1. GENERAL

- a. This annex prescribes normal procedures for protection against CB attack for units of this command.
- b. See Appendices I-III, Annex C (Actions to Minimize Effects of Enemy Nuclear Attack) for procedures common to CB and nuclear attack.

2. REFERENCES

FM 21-40, FM 21-41, and AR 220-58.

3. ORGANIZATION

- a. Unit monitors report CB matters through command channels. Designated CB survey personnel report information to CBRE by most direct means available.
- b. CB monitor and survey teams will be formed at the brigade, battalion, and company level, using trained personnel and operating under the supervision of unit commander. Personnel who are especially trained in CB warfare advise and assist their commander.
- c. Decontamination specialist trained as required.

4. RESPONSIBILITIES

- a. Unit commanders are responsible for—
 - (1) Proficiency of personnel in all phases of CB defense.
 - (2) Proper and expeditious processing of captured enemy CB personnel and equipment.
 - (3) Inspection and maintenance of CB equipment.
 - (4) Appropriate warning to be transmitted on unit voice radio command net immediately on confirmation of CB alert (par. 5).
 - (5) Organization (first and second echelons) decontamination.
- b. Division chemical officer will—
 - (1) Provide technical advice and assistance to division and unit commanders and staff officers.
 - (2) Provide training aids concerning enemy equipment and CB agents.
 - (3) Provide advice concerning the supply and maintenance of Chemical Corps items of protective equipment and supervise CB training and technical intelligence activities.

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- (4) Recommend and exercise technical supervision of survey operations.
 - (5) Maintain contamination situation map and advise commander on actions to minimize casualties.
 - (6) Coordinate third-echelon decontamination projects.
 - c. Support command commander responsible for issue of protective clothing and arrangements for decontamination of clothing by higher echelon supporting the division.
 - d. Division engineer responsible for decontamination operations requiring earth-moving equipment, constructing of protective shelter beyond the capability of using units, and furnishing potable water.
 - e. Division surgeon responsible for analysis of biological warfare samples and advice to commander on actions to minimize casualties.
5. TYPES OF ALERTS
- a. Possible CB attack (enemy capable of CB attack): alert to be given by this headquarters. See paragraph 6a(1).
 - b. Imminent CB attack (enemy believed preparing for CB attack): alert to be given by this headquarters. See paragraph 6a(2).
 - c. Actual attack (enemy CB in progress): alert to be given by first individual detecting the attack. See paragraph 6b.
6. PROCEDURE IN CASE OF CB ATTACK
- a. Action prior to attack.
 - (1) Units alerted for possible CB attack acknowledge receipt of alert, but take no further action until notified by this headquarters.
 - (2) Units alerted for imminent CB attack acknowledge receipt of alert and put individual and collective protective measures on ready basis. Personnel wear protective clothing and carry masks.
 - b. Action during attack.
 - (1) Execute collective protective measures.
 - (2) Inform higher, lower, and adjacent units of attack by most rapid means.
 - c. Action after attack.
 - (1) Announce "all clear," as determined by unit commander.
 - (2) Decontamination. See Appendix 2, Rescue, Labor, and Decontamination Squads to Annex C.
 - (3) Resupply of protective equipment.
 - (4) Mark and report contaminated areas to higher, lower, and adjacent units.

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- (5) Submit report of enemy use of CBR agents by most expeditious means, and follow up with completed DA Form 890.
 - (6) See Appendix 1 (Control and Assessment Teams) (CAT) to Annex C.
 - (7) See Appendix 3 (Area Damage Control) to Annex C.
7. PROTECTION
- a. Individual. Individuals carry protective masks and associated equipment and are responsible for self-aid.
 - b. Collective. Construction of collective protective shelters at discretion of unit commanders.
 - c. Tactical.
 - (1) Unit commanders prescribe equipment and procedures required for occupation of or passage through contaminated areas.
 - (2) Supply and equipment dispersed as much as the situation permits and maintained under cover.
8. DECONTAMINATION
- a. Units perform organizational decontamination.
 - b. Submit requirements for field decontamination or large area decontamination to division chemical officers.
9. SUPPLY
- Emergency requisition for CB and radiac equipment submitted by most expeditious means.

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Annex E (Prediction of Fallout, Radiological Monitoring and Survey) to SOP No. 3

1. GENERAL

Purpose. To establish procedures for prediction of fallout and radiological monitoring and survey.

2. REFERENCE

TM 3-210, FM 3-12, Operational Aspects of Fallout, FM 101-5.

3. ORGANIZATION

Current organization for combat.

4. DUTIES AND RESPONSIBILITIES

a. General Staff.

- (1) G2. Supervise the Chemical, Biological and Radiological Element (CBRE), TOC, in dissemination of fallout predictions resulting from enemy employment of nuclear weapons; dissemination of radiological contamination charts; and planning radiological surveys.
- (2) G3. Coordinate with the CBRE concerning planned friendly nuclear employment to include dissemination of fallout predictions pertaining thereto.
- (3) G5. (G3 when division has not been augmented.)
 - (a) Establish procedures and channels for exchange of radiation information with appropriate civil agencies.
 - (b) Establish local civil defense measures and capabilities to conduct radiological monitoring and survey operations.
 - (c) Supervise radiological monitoring and survey operations of local civil defense organizations.

b. Other staff responsibilities.

- (1) FSE.
 - (a) Informs the CBRE of the details of planned nuclear weapons employment in order that the CBRE can prepare and disseminate prestrike and poststrike fallout predictions.
 - (b) Disseminates upper air wind data to CBRE each 2 hours.
- (2) Aviation Officer.
 - (a) Conducts training as required to insure all assigned aviators are qualified to fly aerial survey missions.
 - (b) Furnishes aircraft and pilots for aerial survey missions as required.

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- (c) Insures maximum number of authorized radiacmeters are mounted on aircraft normally used for reconnaissance and observation missions.
 - (d) Coordinate with CBRE for planning and conducting aerial radiological survey.
 - (3) Engineer. Provides personnel and equipment as required for decontamination operations involving use of engineer earth-moving equipment. Coordinates with CBRE on radiological information associated with employment of ADM.
 - (4) Support command. Procures, distributes, calibrates, and maintains radiac instruments as authorized by current tables of organization and equipment and tables of distribution.
 - (5) Chemical Officer.
 - (a) Operates CBRE.
 - (b) Plans, directs and coordinates radiological surveys.
 - (c) Supervises operation of attached chemical units.
 - (d) Advises on decontamination operations.
 - (e) Prepares and disseminates fallout predictions.
 - (f) Maintains CBR Situation Map.
 - (g) Prepares and disseminates current contamination charts to division staff officers, corps and subordinate and attached units as required.
 - (6) Provost Marshal. Provides traffic control into, within, and around contaminated areas.
 - (7) Surgeon. Responsible for advice on radiation doses and physiological effects.
- c. Organizations and units.
- (1) Monitoring.
 - (a) Periodic monitoring. All units of company size or larger will maintain a monitor on duty with the CP on a continuous basis. In company-size units (and smaller units operating independently), the monitor will make a routine check of the unit area every 12 hours and will check a designated point within the CP area each hour.
 - (b) Continuous monitoring.
 - 1. Continuous monitoring will be initiated—
 - a. When a fallout warning is received.
 - b. When ordered by the unit commander.
 - c. After a nuclear burst has been heard.
 - d. When the unit is moving.
 - e. When a nuclear strike is observed or reported.
 - f. During reconnaissance and patrol activities.

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than FLASH) consistent with other operational requirements for communications facilities.

- (4) Communication. Reports will be submitted by teletype or voice through the area communications system. Units temporarily out of contact with the area communication center will use the division intelligence net as an alternate means.
- (5) Summary reports. Upon direction of division headquarters, units will submit a summary report consisting of an overlay showing the radiation situation in the area as compiled from monitoring reports.

e. Training.

- (1) Unit commanders will train a minimum of two monitors to operate each organic radiacmeter. All qualified aerial observers will be trained to perform aerial survey duties.
- (2) Company sized units will train a CBR Team. A minimum of two survey parties per area survey instrument authorized will be trained within the CBR Team.

f. Survey. Surveys will be conducted only when essential radiological information cannot be obtained by monitoring.

- (1) Division controlled surveys.
 - (a) Aerial surveys. During aerial surveys the aircraft flies at the lowest possible constant ground altitude and ground speed along the designated course. Readings are taken at equal time intervals and recorded by the monitor on DA Form 1971-R. The location, altitude, dose rate, and time of reading will be reported in clear text by radio directly to the CBRE. The air-ground correlation factor will be determined by the monitor for each survey and included with his initial report.
 - (b) Ground surveys. Ground survey parties will follow the prescribed survey course and will report the dose rate, location, and time of reading at points designated by the CBRE or the control party. Reading will be taken with the survey meter held approximately 1 meter above the ground. In open areas, readings will be taken at least 10 meters away from buildings or other large structures. In built-up areas readings will be taken in the center of the street or street intersection. Mounted monitors will determine the shielding correlation factor and include this data in the first survey report. Readings will be recorded on DA Form

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1971-R. Reports will be submitted as directed by this headquarters.

- (2) Unit controlled surveys. Units will conduct surveys as outlined in (a) above. Upon completion of the survey, the results will be forwarded to the CBRE.

g. Communications. Intelligence nets will be used to report monitoring and survey information. The area communication system will be used by brigades and separate units in reporting to division. Artillery units may also use artillery nets.

5. UNIT ACTIONS

When fallout is initially detected, the unit commander will make an initial report and direct the following action:

- a. In bivouac, defensive position, or administrative installations.
- (1) Within the limits of his mission, take shelter in prepared positions, existing buildings, inside vehicles, etc. If no shelter is available, begin construction of hasty field fortifications with overhead cover. Upon movement into an area, the preparation of shelters will be habitual, within limits of the mission.
- (2) Movement of subordinate units within the assigned sector or area to take advantage of lower dose rates or better shelter is authorized, if such movement is consistent with the mission. Movement of all or part of the unit out of the assigned sector or area will be only at the direction of this headquarters. In absence of communications with this headquarters, movement is limited to that necessary to regain communications with this headquarters or find effective shelter.
- b. During offensive action or reconnaissance. Report contact with radiation. If an Operation Exposure Guide (maximum dose which the commander considers his unit may be permitted to receive on a particular mission) has been established, report when one-half the prescribed dose has been received. Continue the mission using the most favorable routes. Report significant increases in the dose rate, i.e., a 10 rad/per hour increase.
- c. Reporting enemy nuclear attacks. When an enemy nuclear attack occurs, all units equipped with aiming circles, transits, theodolites, and/or other optical instruments with similar capabilities, will immediately orient the instruments on the burst. Information outlined in Appendix 1 (Nuclear Burst Report) will be submitted to the CBRE, using the area communi-

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cations system. (Artillery units may submit this information through artillery channels to the FSE.)

6. DECONTAMINATION

(See Annex D, Action to Minimize Effects of Chemical and Biological Attacks, and par. 4, app. 2, to annex C.)

7. INDIVIDUAL ACTIONS UNDER FALLOUT

Actions that can be taken by individuals to minimize the effects of fallout are outlined below. Individuals will be directed to take such of the following actions as are consistent with the mission of the unit and nature of the action in which the individual is involved.

- a. Acquire the following protection in the order listed: remain in the shelter until the area has been determined safe or exit is required for urgent reasons.
 - (1) Underground shelters.
 - (2) Foxholes with overhead cover. Foxholes will be continually improved as time permits.
 - (3) Armored vehicles. Vehicles will be used when shelters listed in (1) and (2) above are not available and time precludes constructing such shelters.
 - (4) Buildings. Buildings of masonry construction will be used in preference to those constructed of wood or other materials.
 - (5) Clothing, shelter halves, etc. Exposed personnel will, when possible, cover all exposed skin and further cover clothing with such items as shelter halves, blankets, canvas, etc.
 - (6) Sandbags in vehicles. Vehicles operating in contaminated areas will, when practicable, be equipped with sandbags on the floors and sides to reduce radioactivity being emitted from the ground.
- b. Decontamination. When fallout has ceased, individuals will, where practicable, decontaminate as follows:
 - (1) Brush clothing and personal equipment thoroughly to remove fallout particles. This should be done in an area away from that which the individual will occupy.
 - (2) Bathe thoroughly, preferably by showering, and change clothing. Insure personal effects such as billfolds, watches, etc., are decontaminated; otherwise, disposed of.
 - (3) Decontaminate individual equipment by brushing, wiping, and, as appropriate, scrubbing.
 - (4) Decontaminate the immediate area in which the individual is located by hosing or turning the soil as appropriate. (For example, the soil within a foxhole should be removed and

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- the soil around a foxhole turned over or covered to bury the fallout; tents, vans, and other vehicles should be hosed.)
- (5) Clean other equipment as required. When available, high pressure steam or high pressure air is most effective.
 - c. Maintain a full canteen of water and sufficient rations to permit the individual to remain in a protected area for a minimum of 24 hours.
 - d. Protective masks, dust respirators, or handkerchiefs over nose and mouth may be worn if the dust or fallout particles hinder breathing. It is not necessary to wear the mask to avoid inhaling radioactive particles.
 - e. Reduce stay time in contaminated areas. Only tasks which are vital to accomplishment of the unit mission should be performed in radioactive contaminated areas. Individuals entering the contaminated area should have maximum protection, consistent with the task to be performed and should remain in the contaminated area for the minimum practicable time.

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Appendix: 1—Nuclear Burst Report

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Appendix 1 (Nuclear Burst Report, NBC 1) to Annex E (Prediction of
Fallout, Radiological Monitoring, and Survey) to SOP No. 3

<u>LETTER</u>	<u>MEANING</u>
	Precedence
	Date/Time (ZULU)
	Security
	From
	To
A.	Type of Report: NBC 1.
B.	Position of Observer.
C.	Azimuth of attack from observer. (Report magnetic azimuth of observer to cloud center or mushroom stem; measure in mils or degrees, state which.)
D.	Date and time of attack in Greenwich Civil Time (ZULU).
E.	Illumination Time. (Report under conditions of poor visibility when cloud measurements cannot be made; report in seconds.)
F.	Location of Attack. (Report observed or known coordinates on this line; if this line is reported, omit C.)
H.	Type of Burst. (Air, surface or unknown. This line must be reported.)
J.	Flash-to-Bang Time (seconds).
L.	Nuclear Burst Cloud Width. (Measure when bang is heard; report in mils or degrees, state which.)
M.	Stabilized cloud-top angle and/or cloud-bottom angle. (Measure at H+10 minutes; report in mils or degrees, state which. Report <u>Top</u> or <u>Bottom</u> with appropriate angle.)

Instructions:

- Transmit available data promptly.
 - Transmit all data except line M immediately after bang time.
 - Transmit line M immediately after measurement of the angles. Also, include lines B and D with this report.
- Transmit only those lines of the format for which data are available.

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3. Transmit line E only when observation is limited and cloud measurements cannot be obtained.

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Annex F (Rear Area Security) to SOP No. 3

1. PURPOSE

To establish procedures for rear area security planning and operations within division rear area.

2. GENERAL

Security of those portions of the division rear area in which combat service support functions are conducted is the responsibility of the support command commander. Areas occupied by combat reserves, artillery units, and other combat support elements are the responsibility of the combat unit commanders concerned and are specifically excluded from the rear area security responsibility of the support command commander. Local security plans of these units will be coordinated with the support command commander. Staff supervision of rear area security operations is the responsibility of G3.

3. INTELLIGENCE

- a. Information of enemy attack (guerrilla, nuclear, ground attack, air attack, or any other) will be reported to TOC immediately. (See par. 4c.)
- b. Counterintelligence. Information pertaining to transportation and storage of classified items of supply and equipment will be disseminated on a need-to-know basis.

4. OPERATIONS

a. Orders.

- (1) Commanding Officer, support command, is responsible for security of division support area. He assigns responsibility and tasks to elements under his command, to insure all-round security. Commanding Officer, support command, will provide, from sources available within division support area, small provisional security detachments.
- (2) Combat units located in division rear area whose primary mission is rear area security will be designated in current OPORD. These units may be placed under the operational control of Commanding Officer, division support command, for specific tasks, periods of time, or specific operations.
- (3) Units and installations in division rear area are responsible for their own local security.

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- b. Procedures. General location of the division support area is recommended to the division commander by the G4 in coordination with the G3. Specific areas for elements of division support command are designated by Commanding Officer, support command. Primary consideration will be given to unit's ability to accomplish its mission. Other considerations include dispersion between units and installations, and defense of area.
- c. Reports. Any incident associated with rear area security including nuclear, chemical, and ground or airborne attack will be reported immediately through command channels to G3 TOC. Reports will include map coordinates, time and type of incident, unit(s) involved, extent of damage, casualties, and support required.

5. COMBAT SERVICE SUPPORT

a. Supply.

- (1) Level of emergency supply indicated in current Administrative Order or Administrative Annex to OPORD.
- (2) Requisitions for supply directly related to rear area security mission will be submitted through normal supply channels citing special authority.
- (3) Supplies required by units and detachments operating in an incident area will be obtained from nearest available source.

b. Evacuation and hospitalization.

- (1) When medical requirements are beyond capability of units involved in rear security, support command commander will provide additional means.
- (2) Division surgeon will coordinate with higher headquarters to provide required reinforcement of division medical capability.

c. Transportation.

- (1) Support command will provide necessary additional transportation required to support rear area security operations in coordination with commander concerned.
- (2) Commanding Officer, support command, will coordinate with G4 regarding changes in division movements and traffic control plans required as a result of an incident.
- (3) Provost Marshal will coordinate establishment of traffic control posts in the rear area.

- d. Reestablishment of combat service support. Reestablishment of combat service support after an incident is responsibility of support command commander.

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6. COMMAND AND SIGNAL

- a. Division support command will coordinate rear area security and area damage control plans. Command of nondivisional units will be assumed by Commanding Officer, support command, only upon authority of division headquarters.
- b. Area communication system augmented by unit radio nets will be used for rear area security.

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Annex G (Army Aviation) to SOP No. 3

1. ORGANIZATION FOR COMBAT

a. General. The aviation battalion is normally employed in two echelons normally under centralized control. Units may be attached to division units when required by situation. When attached, combat service support provided by combat units will not include supply of aviation fuel, repair parts, or maintenance. This responsibility remains with aviation battalion and the support command.

b. Tactical grouping.

(1) 1st echelon. Headquarters and headquarters company and company B (GS), aviation battalion and aircraft maintenance co, maintenance battalion, located at division instrumented base airfield.

(a) Tactical support section, Company A (GS), aviation battalion, provide command and liaison aircraft to division CG, staff, and division troops as required.

(b) Aerial surveillance platoon, Company B (GS), aviation battalion, operational control of G2.

(2) 2d echelon. Company A (Airmobile), aviation battalion, located at dispersed airfields or landing areas.

c. Battalion headquarters provide representative for AAE, TOC.

d. Attached aviation support. Aviation support attached to or in support of division under operational control division aviation officer.

2. INTELLIGENCE

a. Reconnaissance and surveillance.

(1) Submit requests for air observation and photo air reconnaissance by organic aircraft to TASE.

(2) Capabilities of organic Army aviation fully exploited prior to requests for interservice support.

(3) Requests for airlift submitted to AAE.

b. Enemy materiel. Aircraft maintenance company and aviation battalion provide technical assistance to division G2.

c. Requests for aviation charts and photos directed to supply and transport battalion.

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d. Counterintelligence.

- (1) Personnel forced down behind enemy lines and not immediately retrieved will move to pickup points designated in aviation annex to division OPORD. Pickup points will not be occupied by downed personnel except periods of 30 minutes prior to and following sunrise and sunset unless mutual identification between downed personnel and pickup has been established.
- (2) Documents containing classified information, except daily SOI extracts, will not be carried forward of friendly dispositions.

3. OPERATIONS

a. Security:

- (1) Local security of base airfield responsibility of Commanding Officer, aviation battalion. Defense of division support area responsibility of Commanding Officer, support command.
- (2) Local security of forward airfield(s) responsibility of senior aviation officer. Area defense responsibility of supported unit.

b. Combat.

- (1) Requests for tactical air as cover for organic aviation elements submitted through command channels to TASE.
- (2) Requests for lifting of friendly fires to permit organic aviation employment submitted to FSE.
- (3) Report location all airstrips prior to occupation.
- (4) Requests for additional aviation support.
 - (a) Immediate through supporting or attached element to AAE, TOC.
 - (b) Other through command channels.
- (5) Chemical and biological.
 - (a) Defensive. See Annex D.
 - (b) Offensive. Employment for CB distribution on division order.
- (6) Smoke. Organic or attached aviation employed to distribute smoke on division order and coordinated with FSE.
- (7) Battle area illumination. Organic or attached aviation employed as illumination means on division order and coordinated with FSE.
- (8) Air defense. Aircraft attacked by enemy air or ground fire take evasive action and report immediately location, type, and quantity of enemy action to division FSE.

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- (9) Defense against nuclear attack. Following employment of nuclear weapons by enemy, observation and surveillance effort concentrated on detection of enemy attempt to exploit effects.
- (a) Company B (GS) aviation battalion:
 1. Be prepared to provide emergency peakload aeromedical evacuation.
 2. Provide RADLSV and RADLMON of blast and fallout areas on division order.
 - (b) Company A (Airmobile), Aviation Battalion:
 1. Provide airlift to reinforce supporting elements in RADLSV.
 2. Provide airlift to reinforce supporting elements in aeromedical evacuation missions.
 3. Provide airlift for transportation of CAT's.
 4. Provide airlift for emergency evacuation of personnel in fallout areas.
- (10) Movement.
- (a) Supporting elements displace with supported unit. Prior notification of new airfield to AAE.
 - (b) Div AAE displace with div TOC.
- (11) Communications.
- (a) Wire communication to aviation battalion subordinate elements from closest area signal center.
 - (b) Lateral communication maintained between supporting or attached elements on forward airstrips.
 - (c) Aviation battalion (-) satellites on division main signal center when possible to provide following:
 1. Direct line, G2-3 to aviation battalion operations section.
 2. Direct line, FSE or AAE to aviation battalion operations section.
 - (d) Recon for new division base airfield coordinated with division signal officer, division engineer and G3.
 - (e) Establish flight control center (FCC) for helicopter operations.
 - (f) Nuclear strike warnings disseminated through TOC.

4. LOGISTICS

a. Supply.

(1) C1 I.

- (a) Supporting and attached elements by supported units.
- (b) Division AAE by division headquarters company.

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- (2) C1 II and IV.
 - (a) Supporting or attached aviation element receive aviation items from aviation battalion.
 - (b) Aviation battalion (—) by requisition to aircraft maintenance company (repair parts), other to supply and transport battalion.
 - (3) C1 III.
 - (a) All elements maintain prescribed load.
 - (b) Supply of aviation fuel through supply and transport battalion.
 - (4) C1 V. First priority logistical employment of aviation is for movement of special ammunition items.
 - (5) Salvage. Aviation items salvaged by aircraft maintenance company.
- b. Logistical employment.
- (1) Emergency aerial supply. By request to Support Command.
 - (2) Aeromedical evacuation. By request to Division Surgeon.
 - (3) Aerial personnel transportation. By request to AAE, TOC.
5. REPORTS
- a. Daily status report for all aircraft submitted with vehicle status report by—
 - (1) Units for organic aircraft.
 - (2) Aviation battalion for all other aircraft.
 - b. Daily operations report to G3 by AAE, TOC.

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Annex H (Signal) to SOP No. 3

1. COMMUNICATION CENTERS

- a. Communication centers will be operated continuously at administrative and tactical echelons.
- b. During operations, message precedence as prescribed in AR 105-31, ACP 121, and FM 24-17. Use message forms DD 173, DD 173-1, and DA Form 11-70 (M210 Message Book).
- c. Report excessive delays to message originators and to the signal (communications) officer of the headquarters concerned.
- d. Units prepare to operate airdrop and pickup service at tactical echelons.

2. MESSENGER SERVICE

- a. Scheduled messenger service operated to all assigned and attached major units of the division including division support command and division rear echelon. Frequency of delivery and pickup determined by the division signal officer.
- b. Special messengers available at message center for high precedence communications.

3. RADIO COMMUNICATIONS

a. Radio nets.

- (1) Radio nets conform to those prescribed in the current division SSI and SOI, as implemented or modified by the signal annex of the division OPORD (OPLAN) in effect.
- (2) Radio teletypewriter operators of the army logistic nets, corps or army command; intelligence and division logistic nets keep message center informed of the status of their nets.

b. Restrictions.

- (1) Listening silence broken only on orders of the headquarters imposing the silence or under special conditions stated in OPORD. Proper identification of the unit requesting break of listening silence is necessary before passing any traffic.
- (2) All restrictions imposed on radio stations lifted when unit makes contact with the enemy unless otherwise specified in OPORD.
- (3) Minimum readability and calibration checks made upon initial opening of each radio net. Thereafter, they will be

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- exchanged once every 4 hours if traffic has been passed in the previous period; readability will NOT be exchanged. When the net control station institutes readability checks for an entire net, each subordinate station will permit 30 second of open-air time from conclusion of preceding station transmission before initiating its report.
- c. Interference. Report interference between tactical stations to the next command. Include call letters, frequency, and time of interference and signal strength of interfering station.
 - d. Security.
 - (1) Authenticate when opening or closing a net, imposing or lifting radio listening silence, during frequency changes, and at any other occasion that the operator deems it necessary for max radio security.
 - (2) Radio stations will NOT attempt to enter, jam, or otherwise interfere with unknown radio nets, even if such nets should be identified as enemy, except on orders from division signal officer.
 - (3) Report jamming or attempts to enter division radio nets by unknown stations to division signal officer without delay, giving time, frequency, type of jamming (interference), signal strength, readability, and identification (if obtainable) of interfering station.
 - e. When unable to establish radio contact, division units request radio relay by any aircraft.
4. RADIO RELAY COMMUNICATIONS
- a. Multichannel radio telephone and teletype facilities established between division main, signal centers supporting brigade headquarters, support command headquarters, and such other locations as the division signal officer directs.
 - b. Radio relay terminals at brigade or other headquarters remain under the operational control of the division signal officer. Construction of lines between the radio relay terminal and the unit switchboard is the responsibility of the wire communications personnel of the unit being served by the radio relay terminal. Where the unit has no organic wire communications personnel, the signal battalion will construct the required lines.
5. WIRE COMMUNICATION
- a. Installation. When practicable, each headquarters below division constructs minimum of two field wire circuits to subordinate units. Division signal battalion provides minimum of one radio relay or spiral four system to Brigade.

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b. Commercial facilities. Use of commercial facilities requires prior approval of the division signal officer. Signal officer publishes instructions for severing communication facilities extending into enemy territory. Portions in our territory will be preserved pending instructions from the division signal officer.

c. Wire recovery. Recover wire as the tactical situation permits.

d. Reports.

(1) Brigade, division artillery, separate battalion and squadron forward one copy of circuit diagram, traffic diagram, and line route map to the division signal officer.

(2) One copy each of the division line route map, circuit diagram, and traffic diagram forwarded to brigade and division artillery headquarters to assist in reestablishing the communication system when a major disruption occurs.

e. Repair. If wire circuits are damaged, repair as effectively as possible and report exact location of the damaged circuits to the division signal officer.

f. Telegraph and teletypewriter. Division establishes teletype facilities at each echelon of division headquarters, division support command headquarters, and each area signal center.

6. VISUAL AND SOUND COMMUNICATION

a. Units reproduce and distribute as items of unit SSI and SOI, visual and sound items of the division SSI and SOI.

b. Suitable alerting devices mounted near unit message center.

c. General alarms sounded over the signal communication system of each unit.

d. Units display panels as necessary.

7. AIR COURIER SERVICE

Aviation battalion prepared to fly air couriers.

8. SIGNAL SECURITY

a. Complete authentication codes, map coordinate codes, operation codes, and other brevity codes of division and higher headquarters will NOT be carried forward of brigade, division artillery, battalion and squadron CP's without prior approval of the division signal officer.

b. Extracts of crypto SOI items will NOT be made, copied, or reproduced by units subordinate to this headquarters.

9. PHOTOGRAPHIC

Division photo section furnish ground still and motion picture coverage as directed by division signal officer. Request for aerial photo coverage to G2 air; all other photo requests to division signal officer.

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10. MISCELLANEOUS

Location of area signal centers determined by the division signal officer based upon the number and location of units requiring this service.

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Annex I (Division Tactical Operations Center) to SOP No. 3

1. GENERAL

- a. The TOC is a grouping of representatives of general and special staff sections concerned with current combat and combat support operations. These representatives assist the commander in the tactical operations aspects of his exercise of command by providing current information on combat operations and the combat support available, making recommendations for command decisions, taking action within established policies and issuing implementing instructions.
- b. Once an operation is in progress, current combat and combat support operations are supervised and coordinated through the TOC so that accurate, detailed, and up-to-date situation (friendly and enemy) is maintained and immediately available. Upon receipt of a requirement, the TOC elements concerned analyze it concurrently, isolate problem areas, and coordinate directly.
- c. G3 exercises general staff supervision over the TOC.
- d. OIC TOC. Issue instructions for internal operations using CONARC TT 101-2-1 as a guide.

2. ESTABLISHMENT AND DISPLACEMENT

- a. Establishment.
 - (1) TOC part of division main and the alternate TOC as part of the alternate headquarters.
 - (2) Alternate TOC prepared to take over immediately in the event that the TOC at the division main becomes ineffective.
- b. Displacement.
 - (1) The TOC and alternate TOC will not displace at the same time.
 - (2) When the division main displaces, the alternate TOC will take over as the TOC (either in place, or displaced to a new location).

3. PERSONNEL

- a. The composition of TOC will be as follows:
 - (1) G2-G3 operations, composed of a G2 element and a G3 element.
 - (2) Army aviation element.
 - (3) Air defense element.
 - (4) Fire support element.

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- (5) Tactical air support element, composed of a G2 air group and a G3 air group.
 - (6) Communications—electronics element.
 - (7) Chemical, biological, radiological element.
 - (8) Engineer element.
 - (9) G1 and G4 representation and G5 representation when required.
- b. In addition to elements listed above, liaison officers will be provided to TOC by support command.
4. **PLANNING**
- a. Planning for future operations and preparation of operations plans and annexes will be accomplished by staff sections outside the TOC.
 - b. Coordination of plans with TOC elements will normally be made to insure the plan can be implemented readily from the situation existing or expected to exist at the time the plan becomes effective.
 - c. Current planning will be accomplished in the TOC.
 - d. When the division is operating independently or is the army component of a joint task force, the TOC assumes responsibility for interservice coordination.

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Annex J (Airborne Assault Operations) to SOP No. 3

I. GENERAL

A. Purpose: This annex is published in order to simplify the planning, preparation and execution of airborne assault operations.

B. Organization.

1. The division is organized for airborne operations into assault, followup, and rear echelons.
2. Division commander exercises direct and personal command over assault echelon. Commanders of followup and rear echelons will be designated by division commander for each operation.
3. If feasible, Army aircraft of the division will be flown to the objective area under their own power. Movement to the airhead will be under division control.
4. Assault echelon.
 - a. The following attachments are effective prior to initiation of movement to marshalling areas. Attachments terminate on division order after arrival in the objective area. Attachments of infantry battalions and elements of the tank battalion will be specified for each operation.

<u>1st Bde</u>	<u>2d Bde</u>
105mm Arty Bn	105mm Arty Bn
Engr Co	Engr Co
Fwd Area Sig Cen Plat, Sig Bn	Fwd Area Sig Cen Plat, Sig Bn
Rad Term and Carr Sec Sig Bn	Rad Term and Carr Sec Sig Bn
Plat, MP Co	Plat, MP Co
Med Co	Med Co
Coll and Evac Sec, Sup and Trans Bn	Coll and Evac Sec, Sup and Trans Bn
Det Pack Plat, Air Equip Spt Co	Det Pack Plat, Air Equip Spt Co

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<u>3d Bde</u>	<u>Div Trps</u>
105mm Arty Bn	HHC, Abn Div
Engr Co	Engr Bn (-)
Fwd Area Sig Cen Plat,	Cav Sq
Sig Bn	Sig Bn (-)
Rad Term and Carr Sec,	Avn Bn
Sig Bn	MP Co. (-)
Plat, MP Co	Det, Spt Comd
Med Co	Med Bn (-)
Coll & Evac Sec,	Det, Sup & Trans Bn
Sup & Trans Bn	Det, Admin Co
Det Pack Plat, Air	
Equip Spt Co	

<u>Div Arty</u>	<u>Div Res</u>
Abn Div Arty (-)	Specified for each operation
Composite Arty Bn	

5. Followup echelon.

Spt Comd

- Hq Co & Band (-)
 - Sup & Trans Bn (-)
 - Maint Bn (-)
- Followup elements of assault units.

6. Rear echelon.

- Admin Co (-)
- Hq & Main Spt Co (-), Maint Bn
- Air Equip Spt Co (-)
- Unit rear echelons

II. COORDINATION OF TACTICAL OPERATIONS

A. Command and control.

1. Major subordinate units report location of CP upon entering division assault net.
2. Captured Materiel. Usable weapons, transportation, ammunition, and fuel will be immediately reported to support command commander and may be utilized at the discretion of unit commander.
3. Ground Reconnaissance.
 - a. Immediately report time COPs designated by division are manned and operational.

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- b. Immediately report presence of antiairborne obstacles on DZs and LZs.
- 4. Counterintelligence.
 - a. Upon sealing in marshalling camps, all personnel, including ARC and war correspondents, will be isolated from outside contacts.
 - b. Personnel hospitalized or imprisoned subsequent to briefing will be isolated until the operation is officially announced by higher headquarters.
 - c. Classified documents carried into the objective area by parachute elements of the assault echelon will be limited to extracts of the SOI and fire plans and will be carried on the person of a responsible individual. Maps will contain no markings other than known enemy dispositions and preplanned artillery concentrations.
- 5. Procedures.
 - a. During periods when tactical air coordinator (airborne) is operational, requests for close air support strikes submitted directly from battalion to tactical air coordinator.
 - b. Air space coordination procedures established separately for each operation.

III. COORDINATION OF COMBAT SERVICE SUPPORT OPERATIONS

A. Techniques. Following reports will be submitted by brigade and separate company:

1. Logistics:	<u>Means</u>	<u>Time</u>	<u>To</u>
Major equipment losses	Radio, Radio-teletypewriter	As soon as possible after drop	G4
Status of accompanying supply	Radio, Radio-teletypewriter	As soon as possible after drop	G4
2. Personnel: Effective strength	Radio, Radio-teletypewriter	P-hr +30 min and every half-hour thereafter until fully assembled	G3

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B. Detailed considerations:

1. Logistics

a. Supply

(1) Accompanying supply:

	<u>Unit prescribed load</u>	<u>Additional supply (Division Control)</u>
Class I	3 days	
Class II & IV	3 day level (selected items—prescribed by div)	Selected items (C1 II & IV Sec, Sup & Svc Co)
Class III	Vehicle tanks $\frac{3}{4}$ full on-vehicle cans $\frac{1}{2}$ full	5,000 gallons (C1 III Sec, Sup & Svc Co)
Class IIIa	18 hrs opn/acft (3 day @ 6 hrs/day)	
Class V	Basic load unless otherwise prescribed	
Repair parts	3 days estimated expenditure	7 days estimated expenditure (Maint Bn)

(2) Automatic followup supply:

(a) Two days supply delivered to battalions and separate companies on D+1; one day daily thereafter until discontinued.

(b) Composition announced for each operation.

(3) On-call followup supply: announced for each operation. Normally two days requirements prepared for delivery by TALOG.

b. Medical evacuation and hospitalization: Aeromedical evacuation coordinated by Division Surgeon.

2. Personnel.

a. Replacements: Overstrength replacements join division administration company when unit marshals. Delivered to units in objective area as required commencing D+1.

b. Prisoners of war: Air evacuation of PW coordinated by G1.

c. Graves registration: Temporary cemetery established by division in airhead. Temporary cemetery established

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by brigade when operating separately. Isolated burials only in emergencies.

d. Discipline law and order:

- (1) Jump refusals. An airborne officer at each departure site designated investigating officer. He will meet returning aircraft, take custody of alleged jump refusals, keep them separated and under armed guard, and will allow them to communicate with no one not briefed on the operation until public announcement of operation. He will investigate jump refusal incidents, to include taking statements from crewmembers of aircraft in which refusal returned. Statements and individuals turned over to parent unit rear echelon detachment for further action.
- (2) Disposition of general prisoners. The Provost Marshal is responsible for arrangements for detention of general prisoners or persons awaiting trial by general court.
- (3) Postal Service. Delivery and posting service established for letter mail and packages during marshalling. No mail service in objective area in short duration operations. Commanders inform personnel all mail routed through US Army postal service. Outgoing mail not dispatched until operation disclosed or canceled.

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Appendix 1 (Marshalling)

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Appendix 1 (Marshalling) to Annex J, SOP No. 3

1. PURPOSE

This standing operating procedure for marshalling is published to establish procedures for handling routine marshalling requirements. Procedures established herein will apply unless deviation is directed by orders from this headquarters.

2. GENERAL PROCEDURES AND CONSIDERATIONS.

- a. Tactical integrity will be maintained during marshalling.
- b. Attachments join brigades before movement into marshalling areas.
- c. To the extent possible, units destined for the same LZ/DZ and in the same serial will marshal together to facilitate close coordination and briefing.
- d. Signal Battalion (—) marshals in the same camp with division headquarters.
- e. Agencies that normally operate in or with the division CP marshal with division headquarters.
- f. Minimum time will be spent in marshalling areas. Normally, marshalling by the division will be accomplished within 48 hours. To reduce time spent in marshalling area, maximum planning and preparation, to include initial preparation of supplies and equipment, will be accomplished prior to movement into marshalling areas.

3. ASSIGNMENT OF UNITS TO MARSHALLING CAMPS

- a. This headquarters will assign units to marshalling camps based on:
 - (1) Departure airfields from which units will outload.
 - (2) Size of force.
 - (3) Available camps.
- b. Normally not more than one reinforced brigade will be assigned to a single camp.
- c. Marshalling camps will not necessarily be located on an airfield but will be close enough to allow rapid outloading with minimum movement.

4. SECURITY.

Prior to units being sealed in marshalling areas information concerning the operation will be released on a strict "need-to-know" basis.

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5. PREPARATION FOR AIRBORNE OPERATION.

- a. Upon closing in marshalling camps, units initiate action to prepare personnel and equipment for forthcoming operation.
 - (1) Conduct final inspection of equipment.
 - (2) Begin rigging heavy drop loads in accordance with loading plans.
 - (3) Seal units in marshalling camps and conduct thorough briefings.
 - (4) Issue supplies to be carried into airhead by the individual.
Class I and V supplies will be issued as late as feasible.
 - (5) Load platforms, aerial delivery containers, and parachute adjustable equipment (PAE) bags aboard aircraft.
 - (6) Issue and fit parachutes and load personnel.
- b. A detachment from Air Equipment Support Company will marshal with units to assist in preparation of heavy drop loads.
- c. To reduce the distance rigged loads must be hauled, heavy drop loads will be rigged in the vicinity of the aircraft parking area.
- d. Units will establish and maintain liaison with combat air lift support unit (CALSU) at departure base.

6. ADMINISTRATION AND LOGISTICS.

- a. Marshalling support.
 - (1) When possible, a logistical command agency (Army Staging Area Command—ASAC) will support forces being marshalled with limited organic combat service support. The ASAC establishes a logistical base to handle the resupply of the airborne task force after the assault has been launched. In addition it will receive and care for personnel and equipment evacuated from the airhead. Units being marshalled will be required to perform those essential combat service support functions that can be performed without seriously interfering with preparation of the unit for the assault.
 - (2) In the absence of a logistical command or agency capable of operating marshalling camps, units being marshalled will be required to provide all essential services by available forces.
 - (3) Units must be trained and prepared to rig and load heavy drop loads without special materials handling equipment.
- b. After dispersal to marshalling areas, major units will deal directly with supporting logistical command for routine supply and service requirements. Unit distribution of supply.
- c. To the extent possible, accompanying supplies will be drawn prior to movement into marshalling camps.

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d. Preparation and outloading of supplies.

- (1) Accompanying supplies are prepared and outloaded by units, assisted by Support Command and logistical command. They are normally rigged for aerial delivery concurrently with unit equipment.
- (2) Followup supplies.
 - (a) Quantity and type supplies and items of equipment to be included in automatic and on-call followup supply will be developed during joint planning for the airborne assault.
 - (b) The logistical command agency designated to support the operation will be responsible for assembly, preparation, and outloading of followup supplies.
 1. Normally, three days automatic and two additional days of on-call supplies will be prepared. These may be outloaded from one or several airfields.
 2. Units assist in preparation of followup supplies as situation permits.
 3. Support Command coordinates closely with supporting logistical command and provides such assistance as is compatible with its airhead mission.
 4. In operations involving a task force only, or in the absence of a logistical command, Support Command may be required to outload followup supplies with assistance from other units available.

7. MISCELLANEOUS

- a. Elements of units no longer required in marshalling areas after departure of parent unit will move to Division Rear CP location.
- b. Communications.
 - (1) The supporting logistical command agency is responsible for communications between and within marshalling camps.
 - (2) Organic signal equipment is used only when other not available.

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General, United States Army,
Chief of Staff.

Official:

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Major General, United States Army,
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ACSI (5)	Div Co & Trp (2)
OFC RES COMP (5)	Div Fa Btry (2)
CARROTC (5)	Div Spt Comd (5)
USASA (2)	Div Arty (5)
CoA (2)	LOGCOMD (2)
DASA (2)	MAAG (5)
CofEngrs (2)	Mil Msn (5)
TSG (2)	ADA Btry (1)
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CINFO (2)	Br Svc Sch (10) except
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USA SPWAR CD Agcy (2)	USASCS (265)
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ARADCOM Rgn (2)	USACAS (500)
OS Maj Comd (10)	USAAVNS (11)
MDW (3)	USAINTS (220)
PMS Sr Div Units (1)	USASWS (25)
PMS Mil Sch Div Units (1)	Joint Sch (5)
USMA (5)	USACDC (5)
Seventh USA (10)	USA Combined Arms CD Agcy (5)

NG: State AG (3); Div (4); Div Arty (2); Div BG, Div CC, Div Bn, Div Sqd,
Div Co, Div Btry, Div Trp (1).

USAR: Same as active Army.

For explanation of abbreviations used, see AR 320-50.

☆ U.S. Government Printing Office: 1963-650521

FIELD MANUAL

No. 61-100

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., 4 January 1962

THE DIVISION

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Purpose

This manual sets forth doctrine for employment of the division. It is designed primarily for the use of division and brigade commanders and their staffs.

2. Scope

a. This manual provides information on the organization, capabilities, limitations, command, planning, tactical employment, and administrative support of airborne, armored, infantry, and mechanized divisions. This manual covers division level operations under active or nonactive nuclear conditions. When appropriate, modifying guidance for nonnuclear warfare is included.

b. This manual is for use in conjunction with other manuals and training texts (app. I). It presents doctrine that is common to all areas of operations. Special operations (northern, jungle, desert, etc.) and airborne operations are covered in detail in other manuals and are discussed only in general terms.

c. Recommended changes or comments to improve this manual should be forwarded direct to U.S. Army Command and General Staff College Fort Leavenworth, Kans., on Form 1598 (Record of Comments on Publications).

Section II. MISSIONS AND ROLES OF THE DIVISION

3. Mission

The mission of the division is the destruction of enemy military forces and the seizure or domination of critical land areas, their populations and resources.

4. Other Roles.

In addition to its basic mission, the division may be employed to accomplish—

- a.* A show of force.
- b.* Truce enforcement.

- c. International police action.
- d. Encouragement of a faltering government.
- e. Legal occupation.
- f. Restoration of order.
- g. Protection of personnel and property.
- h. Assistance to civil defense efforts.

Section III. ORGANIZATION, CAPABILITIES, AND LIMITATIONS OF THE DIVISION

5. General Characteristics

a. The division consists of a relatively fixed command, staff, and combat and administrative support structure to which is assigned combat battalions (airborne infantry, infantry, mechanized infantry, tank) in proportion to and in numbers appropriate to the division's mission and its anticipated operational environment. Determination of the types and numbers of combat battalions in a particular division is called "tailoring." Making this determination prior to deploying a division to a particular area of operations is "strategic tailoring." The transfer of units by higher field commanders from one division to another, or the augmentation of a division from nondivisional sources to meet specific needs, or the streamlining of a division by detaching some of its elements or equipment is "external tactical tailoring." Grouping appropriate elements of the division under its three brigades and other control headquarters in numbers and types appropriate to each brigade or other control unit's specific mission is "internal tactical tailoring" and is referred to, in this manual, as organization of the division for combat.

b. A division is designated by the Department of the Army as airborne, armored, infantry, or mechanized depending upon the numbers and types of combat battalions assigned when it is strategically tailored. This tailoring gives the division and its subordinate units the capability to perform specific missions in an anticipated operational environment. Examples of type divisions are shown in figures 33 through 36, appendix II.

c. Within the division the three brigade headquarters are the major tactical command headquarters to which combat, combat support, and administrative support elements may be attached or placed in support to perform specific missions.

d. The division support command consists of a headquarters and headquarters company and functionalized administrative support units appropriate to support the division (fig. 57, app. II).

Administrative support units can be fragmented to provide functional support elements which can be attached to or placed in support of the brigades or other combat units.

e. Since the organization, strength, and equipment of the division are based upon its contemplated mission and the operational environment, its capabilities and limitations will depend upon the manner in which it has been strategically or externally tactically tailored. The lists of capabilities and limitations which follow are a guide to the conditions under which the various divisions might be employed.

f. All divisions can—

- (1) Perform ground operations under conditions of nuclear or nonnuclear warfare to include antiguerrilla operations.
- (2) Operate as a part of a joint amphibious force.
- (3) Control and administer additional combat battalions.
- (4) Control enemy populations.
- (5) Restore order.
- (6) Conduct airmobile operations.
- (7) Conduct long range patrolling.
- (8) Perform approximately 75 percent of their own vehicle and equipment maintenance.

g. All divisions lack organic air defense artillery.

6. Organization, Capabilities, and Limitations of the Infantry Division

a. The organization of the infantry division (fig. 33, app. II) enhances its capability for—

- (1) Sustained combat against similarly or less well equipped ground forces.
- (2) Ground operations in difficult weather and terrain.
- (3) Airborne operations as a part of a joint force.
- (4) Operations with austere logistical support.
- (5) Strategic deployment by air transport.

b. The infantry division has the following limitations:

- (1) Limited vehicular mobility.
- (2) Limited protection against tanks.
- (3) Limited armor protection against artillery and nuclear effects.

7. Organization, Capabilities, and Limitations of the Mechanized Division

a. The organization of a mechanized infantry division (fig. 34, app. II) enhances its capability for—

- (1) Breakthrough, pursuit, and exploitation type operations as well as a sustained capability to conduct offensive operations in enemy rear areas. Adequate provisions must be made for administrative support when sustained operations are conducted in enemy rear area.
 - (2) Sustained combat against most types of ground forces.
 - (3) Mobile offensive operations characterized by rapid movement and wide dispersal to include deep penetration, exploitation, and pursuit.
 - (4) Covering force operations.
 - (5) Use as a mobile counterattack force.
 - (6) Operations requiring armor shielding against nuclear small arms and shell fragment effects.
- b. The mechanized division has the following limitations :
- (1) Not air transportable,
 - (2) Restricted vehicular mobility in jungle, dense forest, untrafficable and steeply rugged terrain, and over water obstacles.
 - (3) Requirement for more logistical support, particularly maintenance and fuel, than the infantry division. This includes rail or highway transport of tracked vehicles for long administrative moves.
8. Organization, Capabilities, and Limitations of the Armored Division
- a. The organization of the armored division (fig. 35, app. II) enhances its capability for—
- (1) Breakthrough, pursuit and exploitation type operations as well as a sustained capability to conduct offensive operations in enemy rear areas. Adequate provisions must be made for administrative support when sustained operations are conducted in enemy rear area.
 - (2) Sustained combat operations against any type of opposing ground forces.
 - (3) Mobile offensive operations characterized by rapid movement and wide dispersal to include deep penetration, exploitation, and pursuit.
 - (4) Operations requiring armor shielding against tank, artillery, and nuclear fires.
 - (5) Covering force operations.
 - (6) Use as a mobile counterattack force.
- b. The armored division has the following limitations :
- (1) Not air transportable.

- (2) Restricted mobility in jungle, dense forest, untrafficable and steeply rugged terrain, and over water obstacles.
- (3) Requirement for heavy logistical support, particularly maintenance, fuel, and ammunition. This includes rail or highway transport of track vehicles for long administrative moves.

9. Organization, Capabilities, and Limitations of the Airborne Division

a. The organization of the airborne division (fig. 36, app. II) enhances its capability for—

- (1) Airborne operations as a part of a joint force, including assault by parachute.
- (2) Ground operations in difficult terrain.
- (3) Operations in enemy rear areas for limited periods of time.
- (4) Combat as a part of a larger force in a nonairborne or nonair-landed operation.
- (5) Rapid strategic deployment by air.
- (6) Operations under austere maintenance and supply support.

b. The airborne division has the following limitations:

- (1) Requirement for considerable initial and continuing Air Force support when employed in an airborne role.
- (2) Limited ground vehicular mobility.
- (3) Less protection than other divisions against tanks, artillery, and nuclear attack.
- (4) Sensitivity to weather conditions and aircraft availability when employed in an airborne role.

CHAPTER 2

COMMAND

Section I. GENERAL

10. Commanders

Commanders at company and higher echelons must be prepared to employ infantry, mechanized, tank, and airborne forces, together with appropriate supporting elements, as combined arms teams. Commanders can anticipate that their commands might include any or all of these elements depending upon their mission and the environment.

Section II. DIVISION COMMAND

11. Division Commander.

The commander must concentrate on the essential aspects of his mission and delegate to his staff supervision of those activities which are less critical. The division commander's concept of operation must be completely and thoroughly understood by subordinate commanders. The subordinate must have freedom of action to exploit rapid changes in the tactical situation and still operate within the overall concept of the division commander.

12. Assistant Division Commanders

The assistant division commander (ADC) assists in the command of the division by performing those tasks assigned him by the division commander. The senior ADC must always be prepared to act for the division commander in the latter's absence.

13. Command Channels

The division commander exercises command through the commanders of the brigades, division artillery, support command, and the armored cavalry, aviation, engineer, signal battalion, and the military police company. If, under extreme conditions, it is necessary for him to issue instructions directly to units below the brigade, the intermediate commanders must be informed of the action taken and normal command channels restored at the earliest opportunity. Certain combat elements, such as the

armored cavalry squadron, may be held under direct command of division.

14. Succession of Command

In the event the commander becomes a casualty, seniority as prescribed by Army Regulations determines the succession of command. Commanders should designate individuals, in order of succession, to temporarily direct operations until the next senior can properly assume command or a new commander can be appointed.

Section III. DIVISION STAFF

15. General

a. Division Staff. The purpose of the division staff is to assist the division commander in the exercise of command. Staff functions concerning planning for and employment of nuclear weapons are stated in FM 101-31.

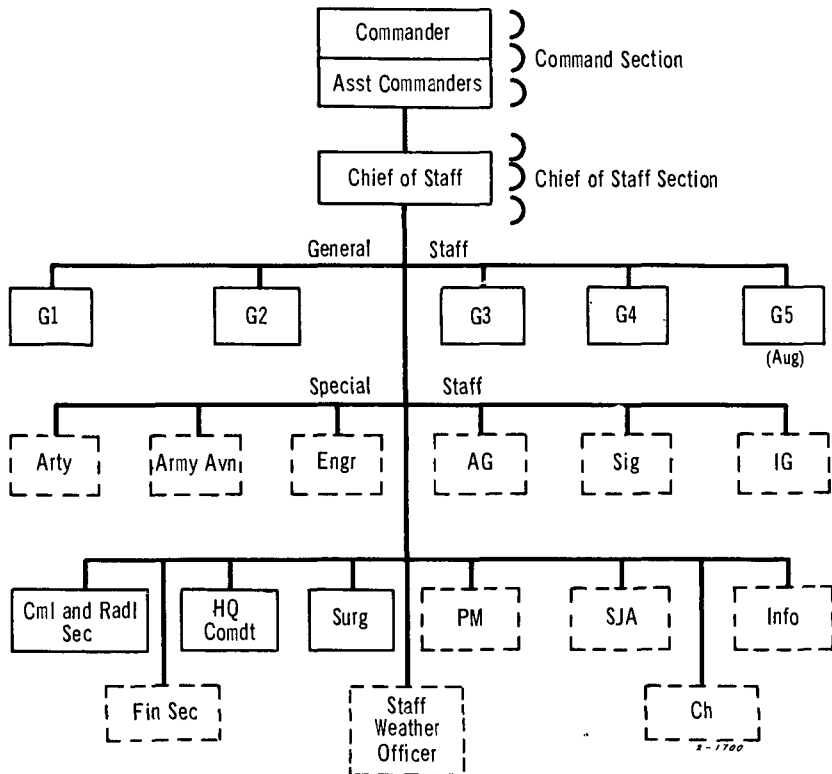
b. General Staff. General staff responsibilities, procedures, and relationships are as described in FM 54-2 and FM 101-5. However, general staff planning and advice on transportation matters are accomplished in the G3 and G4 sections. G3 has staff responsibility for transportation matters concerning tactical troop movement. G4 has staff responsibility for logistical and other administrative transportation to include establishment of a division traffic control headquarters.

c. Special Staff.

- (1) With the exception of the chemical and radiological section, the division surgeons section, the headquarters commandant section, and the staff weather officer section, the special staff sections are provided from organic personnel of divisional units other than the division headquarters and headquarters company.
- (2) The strength and structure of those special staff sections which are manned by the divisional units can be expanded or contracted as necessary.
- (3) Combat support unit commanders who are also division special staff officers (engineer, signal, artillery, and aviation) provide advice in their functional areas to the division commander and staff and to subordinate unit commanders. The responsibilities of special staff officers are described in detail in FM 101-5.

16. Staff Organization

Organization of the division staff is shown in figure 1.



NOTE: 1. Personnel for sections shown in dotted lines are furnished from units other than division headquarters and headquarters company.

2. Support command commander furnishes staff advice on logistical operations.

Figure 1. Division staff.

17. Staff Arrangements and Liaison

a. *General.* To expedite staff reaction, a tactical operations center will habitually be established during active operations. An administrative support operations center may be established at the discretion of the division commander. They are not separate organizational entities.

b. *The Tactical Operations Center.* The tactical operations center (TOC) is a facility at the division main within which are grouped representatives of general and special staff sections concerned with current combat and combat support operations. These representatives assist the commander in the tactical operations aspects of his exercise of command by providing current information on tactical operations and the combat support available, making recommendations for command decisions or taking action within established policies, and issuing implementing instructions.

The chief of staff exercises overall direction of the staff representatives in the TOC. Normally the G3, without derogation of the normal responsibilities and functions of other general and special staff officers, will be assigned primary general staff responsibility for supervision of the TOC. Details of organization and functions of the TOC are contained in appendix III.

c. The Administrative Support Operations Center. The administrative support operations center (ADSOC) is a grouping of personnel primarily from within the support command and its subordinate units. It operates under the supervision of the support command commander. Personnel from the division staff agencies and units are furnished to the ADSOC as required. Details of ADSOC organization and operation are discussed in appendix III and FM 54-2.

d. Liaison.

- (1) The division chief of staff is responsible for establishing division level liaison in accordance with the desires of the commander and the policy of higher headquarters.
- (2) The duties of liaison officers are discussed in FM 101-5.

Section IV. BRIGADE COMMAND

18. General

The brigade headquarters consists of the command and staff personnel required to supervise tactical training and to conduct tactical operations. The brigade headquarters enters into administrative channels only to the extent necessary to insure continuous and adequate administrative support for brigade operations. The brigade headquarters is prepared to act as an emergency successor for division headquarters in the event the latter is incapable of operations.

19. Brigade Commander

The tactical responsibilities of the brigade commander and similar except in scope to those of the division commander. Although the combat battalions attached to the brigade have an organic unit administrative support capability, the brigade commander is responsible to the division commander for their overall combat efficiency.

20. Brigade Executive Officer

The brigade executive officer is the principal assistant to the brigade commander. His functions and responsibilities are similar to those of a chief of staff. He represents and acts for the brigade commander during the temporary absence of the latter.

Section V. BRIGADE STAFF

21. General

The duties of the members of the brigade staff are similar, except in scope, to those of their counterparts on the division staff. The brigade staff has a limited capability for future planning while conducting current operations. The brigade S4 supervises the movement and security of brigade trains.

22. Staff Organization

Organization of the brigade staff is shown in figure 2.

23. Staff Arrangements and Liaison

- a. The brigade does not normally establish a TOC.
- b. The principles expressed in paragraph 17*d* with respect to liaison within the division are applicable to the brigade.

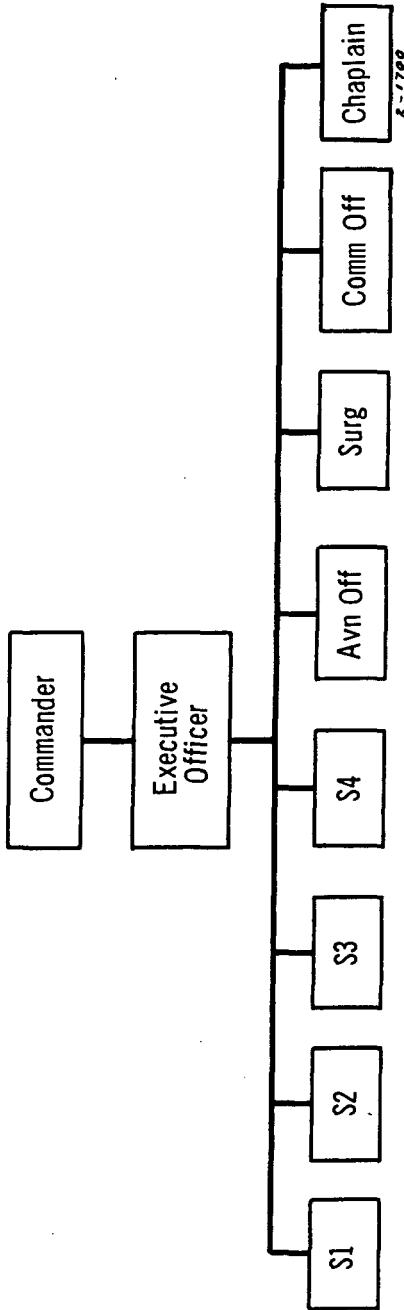


Figure 2. Brigade staff.

Section VI. COMMAND POSTS

24. General

a. Command and staff elements of the division headquarters are echeloned into a series of headquarters installations. The echelon in which the commander is located or from which he operates is called the command post.

- (1) Division tactical, i.e., command group (when required).
- (2) Division main.
- (3) Division rear.

b. Since the manner in which these installations function determines to a large extent the effectiveness of the division, division standing operating procedures are developed for their organization, operation, location, movement, internal arrangement and security, and for alternate command posts.

c. The composition of headquarters echelons is changed as the situation warrants.

25. Division Tactical (Command Group)

The division commander may operate away from the division main, taking selected staff, security and signal communication personnel, and equipment with him. This group is called the division tactical command post, must be mobile and must have communications to operate while moving.

26. Division Main

a. *General.* The division main is the principal facility through which the division commander exercises command.

b. *Composition.* The following are normally located in the area of the division main :

- (1) Division commander and personal staff.
- (2) Assistant division commander and personal staff.
- (3) Chief of staff section.
- (4) G2 section and the headquarters of attached intelligence detachments.
- (5) G3 section.
- (6) Air liaison and weather officers.
- (7) Fire support coordinator and personnel to man the fire support element of the TOC.
- (8) G1 and G4 sections.
- (9) G5 section, when required.
- (10) Aviation section.

- (11) Engineer section.
- (12) Air defense representatives.
- (13) Signal section.
- (14) Signal command operations platoon.
- (15) Adjutant general team.
- (16) Chemical section.
- (17) Division surgeons section.
- (18) Provost Marshal section.
- (19) Headquarters commandant section.
- (20) Division headquarters company.
- (21) Liaison officers to the division.
- (22) US Army Security Agency personnel.
- (23) Military police company and other security personnel as required.

c. Location. The general location of the division main is approved by the division commander upon the recommendation of G3 with advice from the signal officer. G3's recommendation reflects consideration of the commander's concept of operations. The specific location is selected by the headquarters commandant. Consideration in locating the division main include—

- (1) Command of subordinate units.
- (2) Accessibility to higher, lower, and adjacent headquarters.
- (3) Sufficient space to accommodate all command post elements.
- (4) Suitable placement of communication means.
- (5) Adequate cover, concealment, and dispersion.
- (6) Defense of the installation to include distance from probable targets for enemy fires and defense against infiltration, guerrilla, air, and artillery attacks.
- (7) Drainage.
- (8) Vehicle parking areas.
- (9) Adequate internal and access road nets.
- (10) Security afforded by proximity to division combat units.

d. Security. Local and internal security is the responsibility of the headquarters commandant. The security platoon of the division military police company and the division headquarters company and staff sections furnish personnel as required. Security is gained by locating the division main near combat units. Additional security may be provided by attaching combat troops, but such attachments are made only when absolutely necessary. Certain key

portions of the installation such as classified signal facilities require special attention.

e. Displacement. The division main is able to move on short notice and to maintain continuous operation during displacement. Continuous operation during displacement is accomplished by—

- (1) Early provision of new signal facilities.
- (2) Organizing the operating personnel and equipment into two displacement teams.
- (3) Moving one displacement team to the new location while the second team continues to operate from the old location.
- (4) Closing the old installation after the new installation is operational.
- (5) Expediting movement by use of a quartering party, guides along the route and guides within the new site.
- (6) Using radio and messengers to maintain contact with key personnel during the move.

27. Division Alternate Command Posts

Division standing operating procedures provide for alternate command posts. A designated brigade command post should be maintained ready at all times to assume control from division main. In the event the division main is rendered incapable of operating, the division commander will continue to command the division from an alternate command post.

28. Division Rear Echelon

a. General. Elements of the division staff not required to assist the division commander in the command of tactical operations are assigned to the administration company and constitute the division rear echelon. These include the adjutant general, finance officer, inspector general, staff judge advocate, chaplain, and information officer. Other elements may be located there in accordance with desires of the division commander. Unless designated otherwise by the division commander, the division adjutant general is designated the officer in charge of the rear echelon. Details of its organization and operations are in FM 12-11.

b. Location. The location of the division rear echelon is approved by the division commander upon recommendation by the G1. It is normally located in the division rear area but may be located farther to the rear in the corps or army area. Considerations of security, space, facilities, accessibility, and communications apply to selection of its location.

c. Displacement. Movement of the division rear echelon is performed under the supervision of the officer in charge and is under the tactical control of the support command commander.

d. Rear Area Security and Area Damage Control. The officer in charge, division rear echelon, is responsible to the support command commander for internal security of the division rear echelon. When it is located in the division rear area, the support command commander is responsible for integrating the administration company into his plans for rear area security and for area damage control.

e. Communication. Communications are provided by the signal battalion.

29. Division Support Command Command Post

The division support command command post is established in the division support area and assists the support command commander in the logistical support of the division. Basic considerations for the movement, location, and security of the support command command post are generally the same as for the division main. It may contain an ADSOC. Details of organization and operation of the support command command post are in FM 54-2.

30. Brigade Command Posts

a. The brigade headquarters installations perform functions similar to those of the division. They must be located to permit adequate communication with their subordinate units and with the division main.

b. A brigade command post may include the following :

- (1) Brigade commander.
- (2) Executive officer.
- (3) S3 section (including S3 air and chemical officer).
- (4) S2 section.
- (5) S4 section (representatives).
- (6) S1 section.
- (7) Brigade communication officer.
- (8) Combat support unit commanders, their representatives, or liaison officers.
- (9) Air liaison officer.
- (10) Surgeon.
- (11) Brigade aviation officer.
- (12) Brigade headquarters company.
- (13) Chaplain.

c. The brigade headquarters company furnishes security for the

brigade headquarters installation. Additional security may be provided by—

- (1) Locating the installation near combat units.
- (2) Utilizing attached military police units.
- (3) Attaching combat units.

31. Brigade Tactical (Command Group)

The brigade tactical command post is organized and functions similar to the division tactical.

Section VII. SIGNAL COMMUNICATIONS

32. General

The signal communication system enables the division to react with speed and decisiveness. All means of signal communication are employed and it is essential that the system be capable of integrating the organic signal communications of the various combat battalions and combined arms teams which are organized within the division.

33. Responsibility

a. The general staff supervises the formulation of signal plans, policies, and procedures, and the integration of signal plans with other tactical operations. The division signal officer commands the signal battalion, prepares signal plans, and is responsible to the division commander for the operation of the division signal communication system.

b. Each subordinate commander must—

- (1) Establish communication with his subordinate units and to units which he supports.
- (2) Establish communication with the adjacent unit on his right or as otherwise specified by his commander.
- (3) Reestablish communication in the event of interruption regardless of responsibility for initial installation.
- (4) Insure performance of authorized maintenance.

34. Signal Communication Planning

Signal communications planning encompasses all staff actions taken by the division signal officer in preparation for projected operations. The major signal planning techniques are signal estimates, signal plans, and signal orders. (For details on Signal planning see FM 11-16 and FM 101-5.)

35. Signal Orders and Instructions

a. *Standing Operating Procedures (SOP)*. The division signal officer is responsible for preparation of two SOPs. One is the signal section SOP which is based on the command SOP and becomes part of the commander's SOP, the other is the signal unit SOP which is based upon the division SOP and the division signal section SOP. Communications SOPs for all other division units are based on the division SOP and are prepared by unit signal (communication) officers for approval of their respective commanders. (For details as to format and content see FM 11-16 and FM 101-5.)

b. *Signal Operation Instructions (SOI), and Standing Signal Instructions (SSI)*. Signal communications that are primarily technical in nature are published in Signal Operation Instructions and Standing Signal Instructions. These instructions assist the signal officer in fulfilling his responsibility to the commander for technical coordination and control of signal support activities in which troops assigned and attached to the divisions are engaged. (For format and content, see FM 11-16.)

c. *Paragraph 5 of the Operation Order*. Paragraph 5 of an operation order contains instructions relative to command post locations and signal communications. Signal instructions may refer to an annex, but as a minimum, should list the index and issue numbers of the SOI which is in effect. (For details on Paragraph 5 of the Opn Order see FM 101-5.)

36. Communications Considerations in Headquarters Installation

The principal considerations for the positioning of headquarters installations with respect to communication are the—

a. Location of powerlines, electrical stations, hill masses, and dense woods.

b. Effect of distance and terrain on wire, radio, and messenger communications.

c. Routes of communication and traffic conditions.

37. Communications Security

a. The commander establishes communication security measures by stating general principles in the unit SOP and by announcing before an operation any variation to normal security practices.

b. In combat operations, messages of any classification except TOP SECRET may be transmitted in the clear over any circuit when, in the judgment of the commander or his authorized re-

presentative, time cannot be spared for encryption and the enemy cannot exploit the information contained in the text.

c. Special attention must be given to the safeguarding of SSI/SOI items, cryptomatter, and classified signal equipment. A complete SOI should not be taken forward of a battalion headquarters. Further information concerning communication security is contained in FM 32-5.

38. Unit Signal Officer

Unit signal (communication) officers generally perform, within their respective units, duties comparable to those of the division signal officer.

39. Means of Communication

See appropriate tables of organization and equipment (TOE) and section VI, chapter 4.

CHAPTER 3

ORGANIZATION

Section I. THE DIVISION BASE

40. General

Divisions have a common base consisting of the division headquarters and headquarters company, three brigade headquarters and headquarters companies, division artillery, support command, aviation, engineer, and signal battalions, an armored cavalry squadron and a military police company. Capabilities of the division support command are modified to meet the varying supply and maintenance requirements of differing combinations of combat battalions. Further, the quantity and type of equipment vary depending upon the type division. Examples of this modification are found in the military police company, the air equipment support company, and the division artillery of the airborne division.

41. Division Headquarters and Headquarters Company

a. General. The division headquarters provides command and supervision of operations of the division and attached units. The headquarters company provides administrative support for the division headquarters. The headquarters company is normally located at the division main. Elements may operate a division alternate command post and the division tactical when required.

b. Organization. See figure 1; and figure 37, appendix II.

42. Division Military Police Company

a. General. The division military police company provides military police support to the division to include—

- (1) A provost marshal section for the division special staff.
- (2) Up to 36 motor patrols or 36 traffic control post or a combination thereof on a 24-hour basis when not involved in other tasks.
- (3) Operation of prisoner of war (PW) collecting points at brigade and division and evacuation of PW from brigade to division.
- (4) Investigation of crime.

- (5) Control of stragglers and refugees.
- (6) Escort and security of sensitive materiel, personnel, installations, and movements.
- (7) Security for division command posts.

b. Organization. See figure 38, appendix II.

c. Employment. The company headquarters is located near the division main. The security platoon habitually furnishes ground protection for the division main and tactical headquarters echelons with particular attention to their critical areas. When two brigades are committed, a military police platoon is in direct support of each, a third platoon operates the division straggler and PW collecting points and evacuates PW from brigades, and the fourth platoon is in direct support of the support command. When three brigades are committed, and a platoon is required in support of each, additional military police are requested to support the support command.

43. Division Aviation Battalion

a. General. The division aviation battalion provides aviation support for the division to include—

- (1) Support of division headquarters, the support command and other elements without organic aviation.
- (2) Reinforcement of units with organic aircraft.
- (3) An aviation section for the division special staff.
- (4) Operation of a central aircraft communication and control facility and a division instrumented airfield with terminal flight facilities and ground control approach radar.
- (5) Aerial surveillance.
- (6) Assault aircraft for employment under operational control of combat unit commanders in airmobile operations with an organic single lift capability of the assault elements of one dismounted infantry company.
- (7) Logistical lift to include supplemental aeromedical evacuation.
- (8) Provision of armed escort for airmobile operations.

b. Organization. See figures 39 and 40, appendix II.

c. Employment. Employment of the battalion is covered in chapters 4 through 10.

44. Division Armored Cavalry Squadron

a. General.

- (1) The division armored cavalry squadron is a combat unit which can—

- (a) Protect the flank or flanks of the division.
 - (b) Provide security and liaison between division units or between the division and adjacent units.
 - (c) Collect and report information of intelligence value over wide fronts and to extended depths.
 - (d) Act as a covering force in the advance to contact, offense, defense, or retrograde.
 - (e) Provide communications relay.
 - (f) Conduct radiological monitoring and survey.
 - (g) Perform damage control operations.
 - (h) Provide rear area security.
 - (i) Provide armed escort for airmobile operations.
 - (j) Conduct semi-independent operations when suitably reinforced.
- (2) The squadron must be reinforced to conduct sustained combat operations and, for continuous operation it requires considerable logistical support, particularly Class III.

b. Organization. See figures 41 through 44, appendix II.

c. Employment. Employment of the squadron is covered in chapters 4 through 10, and FM 17-36.

45. Division Engineer Battalion

a. General. The division engineer battalion provides engineer support to the division to include—

- (1) Construction, maintenance, removal, and rehabilitation of obstacles, roads, bridges, culverts, deception devices, camouflage, fortification, fords, air-landing facilities, and emplacements.
- (2) Technical assistance to other division troops in performing the functions listed above.
- (3) Demolition to include conventional and atomic demolition munitions (ADM).
- (4) Establishment and operation of a maximum of five water supply points.
- (5) Engineer reconnaissance and intelligence.
- (6) An engineer section for the division special staff.
- (7) Performance of infantry type missions and assisting combat elements in breaching fortifications.

b. Organization. See figures 45 through 48, appendix II.

c. Employment. Employment of the battalion is covered in chapters 4 through 10.

46. Division Signal Battalion

a. General. The division signal battalion provides signal communication support to the division to include—

- (1) Installation and operation of an area communication system having three area signal centers to service units in the division area and command signal centers at division main, division tactical, support command headquarters, and division rear echelon when the latter is located in the division area.
- (2) Installation and operation of message center, messenger, cryptographic, teletype, and radio (except staff vehicle radios) communications for division headquarters and support command headquarters.
- (3) Messenger service between division and brigade.
- (4) Multichannel terminal facilities for the brigades to communicate with division main and rear echelon, and the radio equipment for the brigade terminals of the division RATT net.
- (5) A signal section for the division special staff.
- (6) Photographic service (except aerial photography).

b. Organization. See figures 49 through 56, appendix II.

c. Employment. Employment of the signal battalion is covered in chapter 4.

47. Division Support Command

a. General. The division support command provides administrative support to the division to include—

- (1) Supply, including establishment of mobile distribution points for Class I through IV supplies and maps.
- (2) Third echelon maintenance (except for medical cryptographic and electrical accounting equipment).
- (3) Division level as opposed to unit level medical service, including evacuation of patients, treatment (including emergency dental), medical supply, and first and second echelon medical equipment maintenance.
- (4) In the airborne division, air equipment required for aerial delivery of personnel, supplies, and equipment.
- (5) Advice to the division and subordinate commanders and their staffs on logistical operations to include status of supply, maintenance, and transportation, and capabilities of organic and attached quartermaster, ordnance, and transportation units.

- (6) Personnel and administration functions are covered in paragraphs 94 through 101 and in FM 12-11.

b. Organization.

- (1) See figure 57, appendix II, and FM 54-2.
- (2) Support command units are capable of fragmentation in order to provide attachments to division elements on missions which cannot be supported directly.
- (3) The support command commander exercises tactical command authority over the administration company. Performance of its primary mission is carried out under the staff supervision of the G1.
- (4) The administrative support functions of the support command are organized on a functional basis.
- (5) The support command commander exercises command authority over the medical battalion. The performance of its primary mission is carried out under the staff supervision of the division surgeon.

c. Employment.

- (1) The support command commander is the division level logistical operator for all operations except communications and engineer services.
- (2) The support command is normally located in the division rear area. Logistical support units are located forward with the brigades to furnish one-stop, direct support. Units in the division rear area receive support from the division support area.
- (3) Logistical support can be provided on an area basis or by attachment of support units to major divisional units. It is usual for both methods to be employed with the area support method as a basis.
- (4) Details of support command logistical operations are covered in FM 54-2.

48. Division Artillery

a. General. The division artillery provides combat support to the division by accurate delivery of nuclear and nonnuclear artillery fires of appropriate type, caliber, and density under all conditions of weather, visibility, and terrain. The division artillery provides an artillery section for the division special staff.

b. Organization. See figures 58 through 75, appendix II.

c. Employment.

- (1) Employment of division artillery is covered in chapters 4 through 10.

- (2) Artillery attached to the division or artillery in support of the division is integrated into the division artillery's operational system.
- (3) When artillery battalions are attached to brigades for independent or semi-independent operations, it may be necessary to augment them with survey equipment and personnel, long range radio equipment, forward observers, and ammunition supply means.
- (4) Firing batteries are capable of operating independent of the parent battalion for several days. Attachments from the headquarters and service batteries are normally provided for periods of extended independent operations.
- (5) The missile or missile/howitzer battalion is normally employed by separate battery with extended distances between firing elements. Its nuclear and nonnuclear capabilities are employed under division, brigade, or battalion command as the situation requires.

49. Brigade Headquarters and Headquarters Company

a. General. The brigade headquarters assists the brigade commander to command all elements of the division which are attached and to supervise all elements in support of the brigade in either combat or training situations. The brigade headquarters company provides administrative support to the brigade headquarters.

b. Organization. See figure 2; and figure 76, appendix II.

c. Employment.

- (1) The brigade normally commands the tactical operations of two to five attached combat battalions.
- (2) The brigade may be employed on independent or semi-independent operations when appropriately organized for combat.
- (3) Details of brigade employment are covered in FM 7-30, FM 17-30, and in chapters 4 through 10.

Section II. COMBAT BATTALIONS

50. Infantry Battalion

a. General.

- (1) Infantry battalions close with the enemy by means of fire and maneuver in order to destroy or capture him or to repel his assault by fire, close combat, and counter-attack.
- (2) Infantry battalions are particularly well suited for hold-

ing terrain, operating in difficult terrain and adverse weather, moving by aircraft, breaching fixed defenses, destroying antitank defenses, and closing with enemy forces.

- (3) Infantry battalions are limited to foot mobility unless motorized or mechanized. When motorized or mechanized, their mobility increases the scope and tempo of their operations.

b. Organization. See figures 77 through 79, appendix II.

c. Employment.

- (1) In the infantry and airborne divisions, the infantry battalions constitute the primary combat maneuver elements. The battalion is normally attached to a brigade and employed in coordination with other combat and combat support elements in offensive and defensive operations.
- (2) When attached to the mechanized or armored division, the infantry battalion may be used to increase the division's infantry strength or as a substitute for the mechanized infantry battalion. When so attached, the role of the infantry battalion is essentially the same as that of the mechanized infantry battalion, but because of its limited vehicular mobility, consideration must be given to motorizing or mechanizing.
- (3) Details of employment are covered in chapters 4 through 10.

51. Mechanized Infantry Battalion

a. General.

- (1) Mechanized infantry battalions perform generally the same type missions and have generally the same capabilities as do infantry battalions except that they possess the mobility, protection, and communications afforded by their organic armored personnel carriers. These characteristics make them especially suitable for exploitation pursuit, and counterattack.
- (2) Mechanized infantry battalions require more equipment maintenance and supplies than infantry or airborne battalions. They are more sensitive to difficult terrain and barriers than their less mobile counterparts. However, mechanized squads seldom fight from their carriers. Their mobility enables their force to be projected more widely, more rapidly, and often more violently than infantry and airborne battalions.

b. *Organization.* See figures 77 through 79, appendix II.

c. *Employment.*

- (1) In the armored and mechanized divisions, the mechanized infantry battalion is normally attached to a brigade and may be employed without attachments, or after cross attachment with a tank battalion, may serve as a combined arms battalion task force.
- (2) In the infantry and airborne divisions the mechanized infantry battalion may be used to increase infantry strength.
- (3) Details of employment are covered in chapters 4 through 10.

52. Tank Battalion

a. *General.*

- (1) Tank battalions close with and destroy enemy forces using fire, maneuver, and shock action.
- (2) Tank battalions are particularly well suited to operations which require mobile, direct firepower and armor protection. They are well suited for rapid exploitation, pursuit, disruption of the enemy's rear, and mobile defense. They contribute mobility, fire power and shock action to the tank-infantry team. Their armor shielding reduces vulnerability to hostile fire and permits rapid exploitation through contaminated areas.
- (3) Tank battalions require more equipment maintenance and logistical support than do infantry, mechanized infantry, and airborne infantry battalions. They are more sensitive to difficult terrain and barriers than their counterparts. Their primary equipment is not air transportable.

b. *Organization.* See figures 80 through 82, appendix II.

c. *Employment.*

- (1) In the armored division the tank battalion is normally attached to a brigade and may be employed without attachments, or after cross attachment with a mechanized infantry battalion, may serve as a combined arms battalion task force.
- (2) In the airborne, infantry, and mechanized divisions, tank battalions are employed in roles which take advantage of their firepower, armor protection, and mobility, consistent with the division's mission. The battalion is normally attached to a brigade, thereby adding to the

firepower of the brigade and depth to the antitank defense. In the mechanized division the tank battalion is normally used after cross attachment to form a combined arms battalion task force. The tank battalion may be employed to reinforce other units in offensive and defensive operations or may be employed without attachments.

53. Airborne Infantry Battalion

The airborne infantry battalion is organized and operates in the same manner as an infantry battalion. There are minor variations in personnel and equipment to make it capable of airborne assaults by parachute and assault type aircraft. See figures 77 through 79, appendix II.

Section III. ORGANIZATION FOR COMBAT

54. Division Organization for Combat

a. There are six major control headquarters in the division: division headquarters, division artillery headquarters, support command headquarters, and three brigade headquarters. During tactical operations six major tactical groupings are normally employed: division troops, support command, division artillery, and the three brigades. Additional tactical groupings may be organized when units with suitable control capabilities are attached to the division, for example, and armored cavalry regiment, or by using organic units, such as a combat battalion.

b. In making his estimate of the situation, the division commander analyzes each factor to decide what grouping of maneuver units, support units, and firepower within each brigade will best accomplish the division mission. The appropriate units are then attached to, or placed in support of the brigades. The organization for combat is modified as required during operations. The organization for combat is covered in the division operation order (task organization), examples of which are in FM 101-5.

c. Division troops include those headquarters and combat and combat support troops not attached to the brigades or to the support command. The division artillery headquarters is normally a part of division troops when the division is organized for combat.

d. Particular considerations in division organization for combat in offensive, defensive, and retrograde operations are discussed in chapters 5, 6, and 7.

55. Brigade Organization for Combat

Combat elements attached to brigades and combat support elements placed in support of brigades are employed as pure units or are cross attached to form task forces built around battalions or companies. FM 7-30 and FM 17-30 contain details on brigade organization for combat.

CHAPTER 4

COMBAT AND ADMINISTRATIVE SUPPORT

Section I. GENERAL

56. Combat Support Elements

a. Division Elements. The organic combat support elements available to the division commander are the division artillery, aviation battalion, engineer battalion, signal battalion; and the military police company.

b. Corps and Field Army Elements. Combat support elements of corps and field army normally are available to support the division. These elements may be attached or placed in support of the division by the assignment of appropriate missions as required by the division mission and the area of operations. These elements include corps and army artillery, military intelligence units, technical intelligence detachments, army security agency, army aviation, engineer, signal, chemical, military police, and psychological warfare units.

c. Other Combat Support. The division may also receive combat support from other Services.

57. Administrative Support Elements

a. Division Elements. The support command contains the division administrative support units.

b. Corps and Field Army Elements. Administrative support elements from corps and field army may be attached or placed in support of the division as required by the division mission and the area of operations.

Section II. FIRE SUPPORT

58. General

a. Concept. Firepower, as an element of combat power, is composed of supporting fires directly controlled by the commander as well as those supporting fires that are available to him. The commander is responsible for the coordination of all available supporting fires. The division artillery is the primary source of fire support organic to the division. The firepower of the division artillery is augmented by attaching corps and army artillery units to the division and assigning tactical missions to them to support

the division with all or part of their fires. FM 6-20 and FM 6-20-2 contain details on fire support.

b. Fire Support Coordinator. At division level the division artillery commander is the fire support coordinator (FSCOORD) and principal adviser to the commander on fire support matters. At brigade level, the FSCOORD and principal adviser to the commander on fire support matters is the battalion commander of the direct support artillery battalion. At brigade level the FSCOORD also determines the tactical effects of fallout resulting from the use of nuclear weapons based on prediction prepared by the chemical officer. At the level of a supported battalion the artillery battalion liaison officer from the direct support artillery battalion acts as FSCOORD and adviser to the supported battalion commander. He coordinates the activities of the artillery forward observers who are with the companies of the supported battalion. At company level the artillery and heavy mortar forward observers assist the company commander in requesting fires, preparing target lists, and developing the fire support plan.

c. The Fire Support Element, TOC. The division fire support element, (FSE) is the fire support coordination agency of the division. It operates in the TOC and represents the FSCOORD. The FSE plans, recommends, and coordinates nuclear and non-nuclear fires in accordance with the division commander's guidance and is responsible for the detailed analysis of nuclear targets. Details on FSE organization, functions, and procedures are contained in FM 6-20-2.

59. Fire Support Plan

a. Development. The fire support plan which is made by the FSE and usually published as an annex to the operation order (plan) coordinates fire support to include the employment of radioactive fallout. The fire support plan contains the commander's concept for fire support and provides specific orders and instructions to fire support agencies. The formality of this development varies with the echelon of command within the division and the time available for planning. At company level the plan normally consists of no more than a target list. At battalion level the plan may include nuclear fires, air, and naval gunfire in addition to artillery fires. The fire requests initiated by the companies are coordinated and integrated with the battalion planned fires. At brigade the subordinate unit fire support plans are again coordinated and integrated into the brigade fire support plan. At division level the fire requests initiated by subordinate echelons are coordinated with division's requirements and formalized into a fire support plan.

b. Division Fire Support Plan. The development of this plan includes the preparation and integration of the artillery fire plan, chemical fire plan, naval gunfire plan, when applicable, and the air fire plan. Normally, nuclear fires are included in the fire support plans of each fire support agency and no separate nuclear fire plan is prepared. However, when the quantity of information warrants, a separate nuclear fire plan may be prepared. When prepared, the nuclear fire plan becomes an appendix to the fire support plan and is referenced in other appendixes.

60. Fire Support Requests

a. Nuclear, Toxic Chemical, and Biological Fires. When their use has been authorized, decisions to employ nuclear weapons and toxic chemical and biological agents rest with the commanders to whom the weapons are allocated. Authority to employ fallout producing bursts normally is delegated to the lowest commander whose area of operations can be expected to encompass the probable area of predicted tactically significant fallout. Requests for fires are transmitted through command channels to the commander authorized to act on the request, or to his representative. Notification of the request should also be sent through fire support channels to alert the fire direction center and to insure prompt delivery of fire. Casualty producing levels of fallout from nuclear weapons can extend to greater distances and cover greater areas than any other nuclear weapons effects and can exert an influence on the battlefield for a considerable period of time. Accordingly, when nuclear effects, including fallout, will probably extend into an adjacent commander's area of responsibility, the concurrence of the affected commanders must be obtained or the matter decided at the next higher headquarters. When fallout producing weapons are to be delivered by other services, the supported Army commander must specify the target, the time of attack, troop safety measures, and prediction of fallout patterns.

b. Other Artillery Fires. Requests for nonnuclear artillery fires are sent by the forward observer with the supported unit direct to the fire direction center (FDC) of the supporting artillery battalion. This FDC will request any additional fires required from a reinforcing artillery unit or from the FDC of the next higher echelon.

c. Air Support. Requests for preplanned tactical air support missions are passed through command channels and form the basis for the air fire plan. Requests for immediate tactical air support pass directly from the battalion to the division G3 air group, TASE, on the division air request net. Battalion requests for immediate tactical air support are monitored by the brigade S3 air.

No action is taken by the brigade S3 air unless the battalion air request is to be disapproved. In case of disapproval, the battalion S3 and division G3 air are notified. The division G3 air reviews immediate requests and coordinates them with the FSCoord's representative. Those requests that can be fulfilled effectively by available Army fire support means are normally carried out by such means. Other approved requests are submitted directly to the tactical air support element (TASE) of the field army TOC (FATOC) on the army air request net. Division requests are monitored by the TASE of the corps tactical operations center (CTOC) which intervenes only in the event of disapproval of the request.

d. Naval Gunfire. Requests from combat units for naval gunfire are submitted through naval gunfire liaison personnel attached to the division. These representatives normally are part of an air naval gunfire liaison company (ANGLICO). (See FM 6-20.) When naval gunfire is employed to attack a target, it is fired by direct or general support ships using naval gunfire procedures.

e. Armed Helicopters. Most of the helicopters in the division are armed with varying combinations of aircraft weapons. This airborne fire support means normally is employed in support of assault units in airmobile operations. Requests for this fire support are forwarded to the Army aviation element (AAE) of the TOC. Approved requests are assigned to the armored cavalry squadron or to the aviation battalion for implementation.

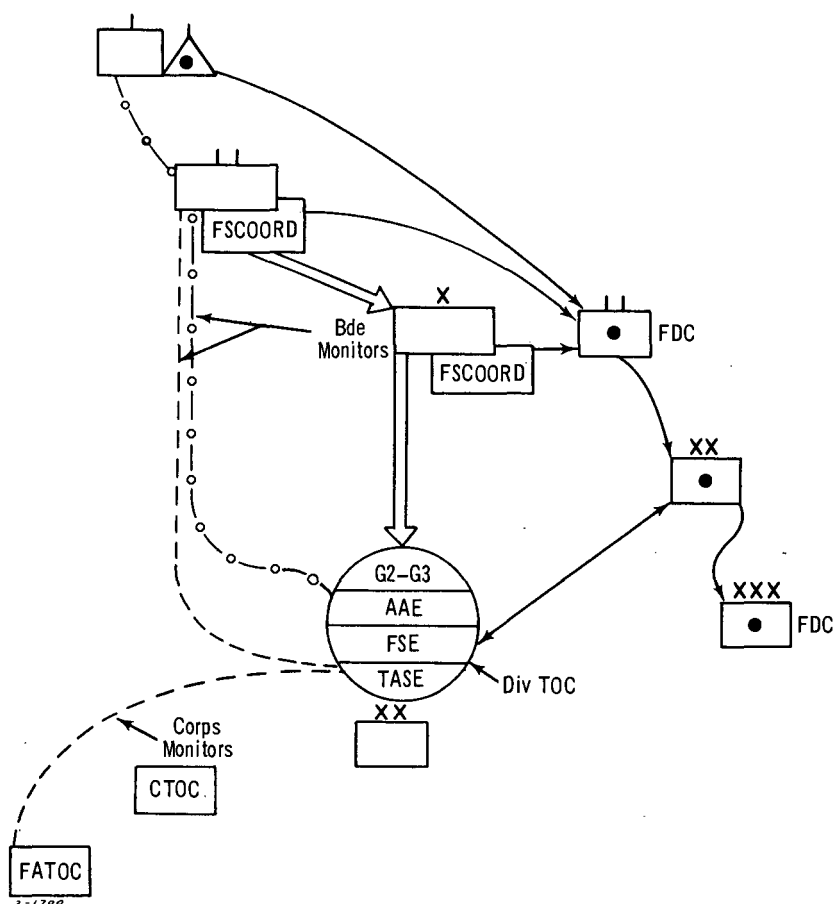
f. Channels of Fire Requests. Figure 3 illustrates the channels of fire requests.

61. Artillery Fire Planning

a. General. The artillery fire plan is an appendix to brigade and division fire support plans.

b. Development.

- (1) Artillery fire planning begins with the company commander and the forward observer from the direct support artillery battalion. The company plan is coordinated with the plans of other companies of the battalion by the battalion FSCoord. Artillery requirements in the form of battalion plans are forwarded to the FDC of the artillery battalion in direct support of the brigade where the details of the brigade artillery fire plan are completed. The brigade artillery fire plan is forwarded to the division artillery FDC and after integration with the division plan, a copy is attached as an appendix to the brigade



LEGEND

- > Nonnuclear artillery support.
- o-o- Armed helicopter support.
- - - - - Tactical air support (nonnuclear).
- =====> Nuclear, chemical, and biological fires (command channels).

NOTE: Naval gunfire is requested through ANGLICO teams.

Figure 3. Fire support requests.

fire support plan. Brigade requirements for nuclear, chemical, and biological fires are processed through command channels.

- (2) At division level, the FSCoord, in coordination with the G3 and chemical officer, determines the division requirements for artillery fire support, Artillery fire requirements, including nuclear, chemical, and biological fires,

are forwarded to the division artillery FDC where they are integrated with brigade fire requirements and the division artillery fire plan is prepared. The division artillery fire plan is disseminated to corps artillery with requests for additional fires, as required, to the division FSE for appending to the division fire support plan, to artillery battalions with the division, and to adjacent division artilleries.

c. Artillery Fire Planning Channels. Figure 4 illustrates artillery fire planning channels.

62. Fire Coordination Measures

a. Boundaries. In addition to their use in delimiting areas of responsibility, boundaries serve as a measure for coordinating fire support. When nuclear, toxic chemical, or biological fires employed by one force will have casualty or damage producing effects in the zone of an adjacent force, these fires must be coordinated with the adjacent force.

b. No-Fire Line. The no-fire line is a line beyond which artillery units may fire without prior clearance from the direct support artillery provided no more than negligible effects for prescribed conditions occur short of the line. The location of the division no-fire line is established by the division artillery commander after coordinating the no-fire line within the division sector.

c. Bomb Line (BL). The bomb line (BL) is a line designated by ground forces beyond which air attacks may be executed without clearance from the ground forces provided no more than negligible effects for prescribed conditions from the use of nuclear or nonnuclear air delivered weapons occur short of the line.

d. Nuclear Safety Line. Nuclear safety lines are lines selected to follow well defined geographical features if possible. They are used to coordinate ground action with nuclear attacks. They may be used to establish areas wherein friendly troops must observe certain protective measures, to designate limits of advance of friendly troops before specified unacceptable effects from planned nuclear fires are encountered, or to prescribe limits to which certain effects of friendly weapons may be permitted to extend in the direction of friendly troops. The exact use of each nuclear safety line is explained in paragraph 3, "Coordinating Instructions," of the operation order.

e. Fire Coordination Line. The fire coordination line (FCL) is established to coordinate fires between airborne or airmobile forces and linkup forces or between two converging forces. It is used

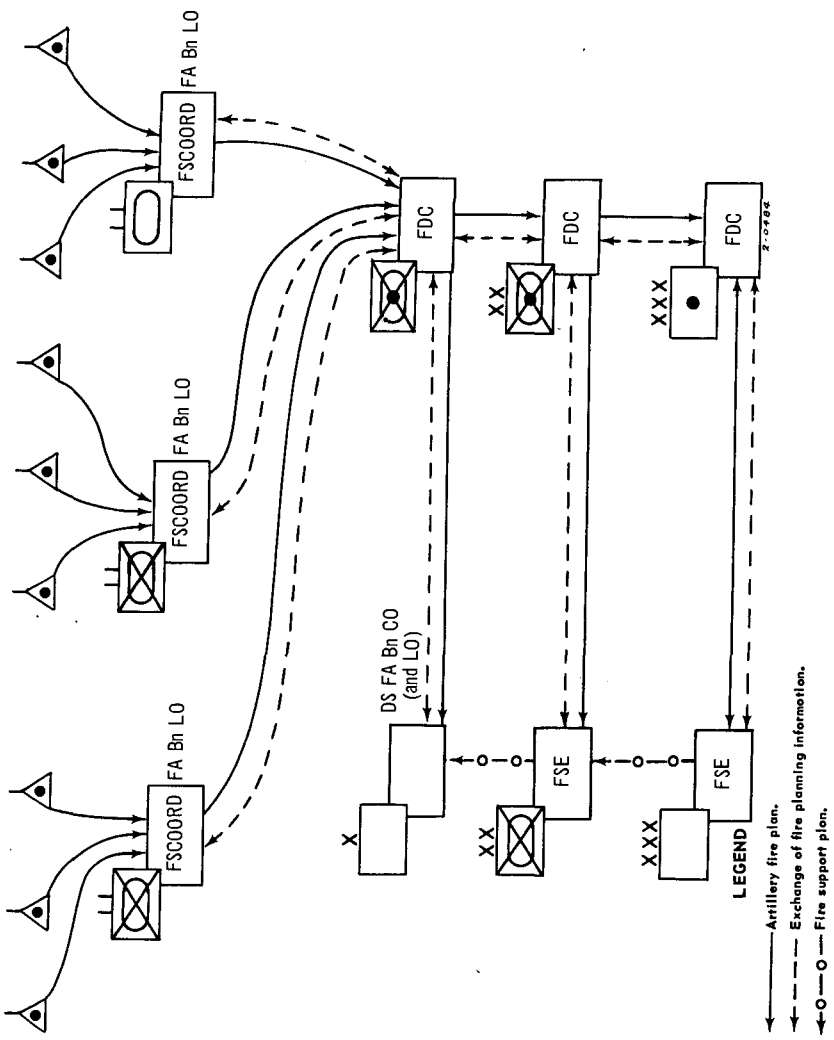


Figure 4. Artillery fire planning channels.

to regulate flat-trajectory and high angle fires and offensive air-strikes. Fires with effects extending beyond this line will be coordinated with the unit on the other side.

f. Commanders must insure flexibility in the procedures governing the use of preplanned fires and fire coordination measures. Many operations may gain such momentum that preplanned fires are not required for their success.

Section III. AIR DEFENSE ARTILLERY

63. General

a. Air defense of the field army area of responsibility is provided by the field army air defense commander through the air defense artillery brigade. This defense by air defense artillery units is in conjunction with the air defense (missile and aircraft) provided by the theater. Air defense of the corps area is provided by air defense artillery units and is coordinated with the army air defense commander. Air defense artillery units may be attached to the division.

b. Plans for the employment of attached air defense artillery units are coordinated with adjacent and higher headquarters. The air defense intelligence means of all air defense artillery units are integrated with the air defense intelligence system to provide for early warning information, transmission of flash messages, and dissemination of information and instructions pertaining to air defense.

c. In the event of an attack of a defended area by aircraft or missiles, air defense units will engage the target in accordance with the rules of engagement in effect in the command.

64. Employment of Attached Air Defense Artillery Missile Battalions

a. The air defense artillery missile battalion is normally retained under division control.

b. The fire unit is the battery. Fire units are employed to defend vital areas or units in accordance with priorities established by the division commander. Because of the range of air defense missiles, a single fire unit may defend several vital areas and units, but the terrain may require that a single vital area or unit be defended by more than one fire unit.

c. Air defense should be provided for elements of the division while moving and for critical points along a route of march. Air defense fire unit sites should be selected to provide maximum defense for the march columns against high performance aircraft

and to optimize the air defense missiles' limited capability against enemy missiles.

d. Air defense artillery units should be in position to provide air defense before the first major units arrive in the assembly areas.

Section IV. INTELLIGENCE SUPPORT

65. General

The intelligence capabilities of the division are supplemented by intelligence agencies of higher echelons. Detailed intelligence procedures are prescribed in FM 30-5 and other appropriate field manuals.

66. Flow of Information and Intelligence

a. As information is processed into intelligence, the G2 insures its timely dissemination to all staff sections concerned and to higher, lower, and adjacent units. The transmission of target acquisition information to the FSE normally takes precedence over the dissemination of the intelligence information.

b. A separate intelligence net providing direct communications between division headquarters and major subordinate tactical units and selective monitoring of the radio transmissions of subordinate units assists in rapid production of intelligence.

67. Reconnaissance

a. General. Effective reconnaissance provides much of the information concerning the enemy, terrain, and weather essential to the conduct of operations. All division units must exploit their organic reconnaissance capabilities, and the activities of these units must be integrated with the division's reconnaissance operations and tactical plans.

b. Ground Reconnaissance. The division armored cavalry squadron is the principal ground reconnaissance unit of the division. In addition, each combat battalion has an organic ground reconnaissance 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 readily patrols can penetrate and develop enemy positions.

c. Air Reconnaissance. Air reconnaissance should be continuous and coordinated with ground reconnaissance. The G2 must exploit the capabilities of Army aviation and the Air Force. Requests for

air reconnaissance missions are received, processed, and coordinated by the G2 air group of the TASE, TOC. If the request is within the capability of Army aviation, aircraft are available and the mission can be accomplished within the time desired, the request is passed to the AAE for implementation. Requests which cannot be accomplished by Army aviation are forwarded to the G2 air group of the TASE, FATOC.

- (1) *Army aviation.* Army aviation may be used in a primary air reconnaissance role or in support of ground reconnaissance elements. The division aviation battalion has an aerial surveillance capability employing visual observation and sensory devices to include photography, infrared, and radar. It also has the capability for battle area illumination. Helicopters may assist patrols and extend their range by moving them to their starting points and by picking them up at prearranged locations.
- (2) *Tactical air force.* The reconnaissance wings of the tactical air force include reconnaissance-fighter and reconnaissance-bomber type aircraft. Reconnaissance-bomber type aircraft normally provide night photographic, electronic, weather, and limited visual reconnaissance information. The reconnaissance-fighter aircraft perform visual and photo air reconnaissance mission over the forward areas as well as at great distances beyond the forward edge of the battle area, as required. Requests for Air Force reconnaissance missions are processed by the G2 air group of the TASE to the FATOC.

68. Agencies

a. Division Agencies. All units of the division are potential information collecting agencies. However, those that come in contact with the enemy such as the combat battalions, artillery battalions, the aviation battalion, and the armored cavalry squadron are the principal contributing agencies.

b. Nondivision Agencies. In addition to higher and adjacent headquarters, the division has several other agencies available to support its intelligence operations.

- (1) *Military intelligence detachment.* A military intelligence detachment is normally attached to the division. This detachment provides specialists in image interpretation, language translation and interpretation, order of battle, prisoner of war interrogation, and counterintelligence security. Details are contained in FM 30-9.

- (2) *US Army Security Agency division support company.* This company will normally support the division by providing communication intelligence and assisting in the maintenance of communication security. Communication intelligence extends the depth of intelligence operations and contributes to target acquisition. The G2 insures that the supporting US Army Security Agency unit is kept informed of division operations and intelligence requirements (AR 10-122).
- (3) *Combat electronic warfare company.* A combat electronic warfare company may be attached to or support the division. This unit furnishes information and intelligence of enemy electronic equipment, organization, and locations by the detection and study of enemy electromagnetic emissions from other than nuclear detonations and communication sources. The G2 keeps the company informed of current intelligence requirements.
- (4) *Technical service intelligence detachments.* Each technical service maintains intelligence detachments which may support the division. See FM 30-16 for a detailed discussion.
- (5) *Air weather service detachment.* These detachments are normally stationed at field army, corps, and division headquarters. From these detachments the division G2 may obtain weather observations, weather briefings, weather reports, weather summaries; detailed operational and planning forecasts; and climatological information. The weather detachment commander is the staff weather officer (SWO) and a member of the special staff, under the general staff supervision of the G2.

69. Target Acquisition

a. In addition to the reconnaissance and surveillance means within the division, there are elements specifically organized and equipped for target acquisition. There is a target acquisition platoon in each 105-mm howitzer battalion. The division artillery headquarters battery has a target acquisition platoon including the visual airborne target location system. The aerial surveillance platoon of the general support company of the aviation battalion is equipped with airborne visual, photo, and electronic surveillance equipment.

b. Targets result from information collected from all sources and agencies or may result from data supplied by a single source. Targets must be detected, identified, and located in three dimen-

sional coordinates with sufficient accuracy and speed to permit effective delivery of fire.

c. The G2 has general staff responsibility for coordinating the target acquisition means available to the division.

70. Surveillance

a. All weather, day and night surveillance of the battle area provides timely information to support tactical operations and involves the systematic observation of the battle area by visual, electronic, photographic, or other means. Without degrading the acquisition of detailed information required on enemy dispositions, surveillance coverage must include the accurate location of friendly units in the forward area, with emphasis on timely information which will permit friendly nuclear fire missions.

b. The G2 coordinates and exercises staff supervision over the activities of the division's surveillance means to insure complete coverage of the division's area of operations.

71. Counterintelligence

a. Effective counterintelligence increases the security of the division and aids in achieving surprise by denying information to the enemy by active and passive measures. Active counterintelligence measures block the enemy's attempts to gain information or to engage in sabotage or subversion by counterreconnaissance, countersubversion, counterespionage, and countersabotage activities. Passive measures conceal information from the enemy and include censorship, security of classified documents and materiel, signal communications security, concealment, camouflage, electronic counter-countermeasures, and control of civil populations.

b. Counterintelligence specialists are not organic to the division. A security section, containing counterintelligence specialists, is organic to the military intelligence detachment that is normally attached to the division. The senior officer of the security section is usually designated as chief of the counterintelligence branch of the G2 section.

72. Intelligence Support of Tactical Cover and Deception Operations

a. Tactical cover and deception operations are a G3 responsibility; the intelligence aspects of these operations must be coordinated with the G2.

b. The division G2 must insure that the intelligence aspects of tactical cover and deception operations are consistent with intelligence operations of the next higher headquarters.

c. See FM 31-40 for detailed information on tactical cover and deception.

73. Radiological Monitoring and Survey

a. Radiological monitoring and survey is an integral part of the overall intelligence effort. Collection of radiological data is planned and coordinated by the chemical, biological, and radiological element (CBRE) of the TOC.

b. Radiological monitoring and survey teams are trained by divisional units authorized monitoring and survey equipment. The division aviation battalion and the armored cavalry squadron are the principal division level agencies which conduct radiological monitoring and survey.

Section V. ENGINEER SUPPORT

74. Division Engineer Battalion

a. The engineer battalion provides equipment and individual skills for engineer tasks. Projects are normally accomplished by companies or by platoons, reinforced when necessary with engineer construction equipment and operators from headquarters and headquarters company, and with river-crossing equipment from the assault bridge company (except the airborne division). The companies or platoons normally will be employed in support of subordinate units of the division. Engineer units generally are not held in reserve. When it is necessary to commit engineer troops as infantry, it is preferable to maintain engineer unit integrity.

b. When the combat battalions or task force organizations are committed on independent or semi-independent missions, engineer support is provided to them.

75. Nondivisional Engineer Support

a. Engineer support is provided by the next higher echelon of command to the division, normally from corps engineers troops. Engineer groups are placed in direct support of the division so as to provide additional combat support means.

b. Engineer units are attached when their missions so necessitate. Hasty river crossings, use of atomic demolition munitions, assistance in emplacement of minefields, and improvement of terrain obstacles are examples of such missions. All engineer support provided to the division is coordinated by the division engineer.

76. Atomic Demolition Munitions

a. Potential targets for atomic demolition munitions (ADM) are normally developed by G2 and the engineer and recommended to G3 for integration with the tactical plan. The engineer will assist in target analyses by providing the following information:

- (1) General statement of the tactical application of ADM to the mission.
- (2) Target number, location, and description.
- (3) Type of ADM, yield, height or depth of burst, and location of ground zero.
- (4) Estimated results.
- (5) Security measures, if appropriate.
- (6) On-call detonation or times of burst and means of detonation.
- (7) Troop and civilian safety precautions.

b. The decision to employ an ADM rests with the commander to whom the weapon is allocated. The engineer is responsible for designating the emplacing and firing unit and for coordinating the supply and movement of equipment, materials, and personnel to support the mission.

c. G3 coordinates tactical security and troop safety for ADM missions. Engineer personnel are responsible for all aspects of ADM emplacement to include pickup of the munition from the special ammunition supply point (SASP); transportation; storage; maintenance as authorized by appropriate TMs; immediate security; preparation of the emplacement site including protective works, devices, and camouflage; emplacement of the munition; installation of site communication and control system; and detonation.

Section VI. SIGNAL SUPPORT

77. Division Area Communication System

a. The division employs an area communication system (fig. 5) which provides—

- (1) Communication service to widely dispersed units.
- (2) Responsiveness to changes in division organization for combat and relocation of units, command posts, and installations.
- (3) Common-user circuits for support of units in the division area and sole user circuits for weapons employment and similar special purposes.

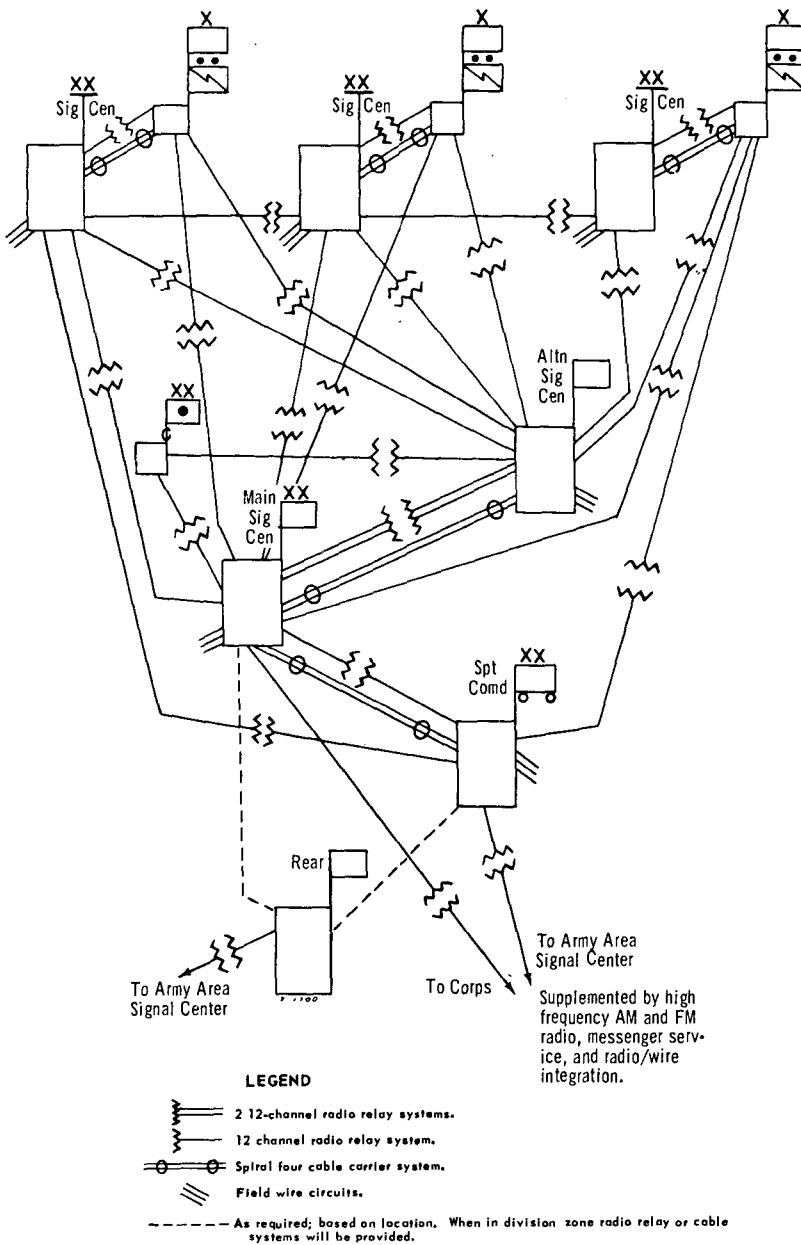


Figure 5. Type division area communications system.

- (4) For integration into the communication systems of corps and field army.
- b. The division area communication system consists of—
 - (1) Signal centers established by the division signal battalion.
 - (2) A multichannel, multiaxis network of radio relay and associated carrier terminals interconnecting the signal centers and major subordinate elements of the division.
 - (3) A messenger service linking the division headquarters and its echelons with the major subordinate commands of the division.
 - (4) AM and FM point-to-point radio communication nets.
 - (5) Radio/wire integration stations capable of interconnecting mobile FM radio stations with the telephone system at signal centers.

78. Division Signal Battalion Operations

a. The signal battalion headquarters and the command operations elements are normally located at the division main.

b. The command operations company provides signal communications (except internal radio nets) for the echelons of division headquarters and the division support command. (In the airborne division, communication support is furnished to the support command by the forward communication company.)

c. The forward communication company provides direct and general support signal center service to units in the forward area of the division zone, supplemental to organic capabilities. It provides each brigade headquarters with multichannel communication to the division tactical and main, and also establishes and operates an assigned portion of the division area communication system.

79. Communications Employment

a. *Frequency Assignment.* Radio frequencies for use within the division communication system are assigned by the division signal officer.

b. *Communication Centers.* Communication centers are operated as components of each signal center within the division area communication system. Cryptographic, teletypewriter, and messenger facilities are associated with each communication center. A facsimile facility is provided only at the main signal center. The communication centers located at the division main, brigade command post, support command headquarters, and division rear echelon serve not only these headquarters but also other units and installations in the vicinity.

c. *Radio Relay.* Radio relay is the primary means of providing trunking and direct circuits for communication between units in the division area communication system. It is also the primary means for telephone service between the major headquarters in the division. Division terminal equipment and operating personnel for the radio relay circuits in the corps/army communication systems are provided by corps/army units.

d. *Wire and Cable Installations.* The signal battalion has a limited capability for installing field cable. When required, assistance from corps or army units may be requested. The amount of cable authorized by the TOE does not reflect the total cable the battalion may be expected to install.

e. *Radio Nets.* Increased radio communication requirements in the division have necessitated a greater than normal number of stations in some nets. To insure maximum results from such communications the commander must establish firm but flexible operational controls to meet changing requirements in the field. Division level radio nets are—

- (1) *Division command intelligence and administrative/logistics nets (AM-RATT).* The signal battalion and other division units are equipped to operate three separate functional radio-teletype nets: one for command operations, one for intelligence operations, and one for administrative and logistical operations. These nets include division headquarters and all major subordinate units.
- (2) *Division CG/command net (FM-voice).* This net is intended primarily for communication between the division commander, his staff, and the commanders of major subordinate units. The number of stations in the net dictates restrictions on its use. While specific use of the net will be governed by the division commander's desires, it is excepted that lateral communications between subordinate commanders will be established by the calling commander entering the FM net of the called commander and not the division CG/command net. Airborne relay stations are established when required.
- (3) *Division warning/broadcast net (AM-voice).* This net broadcasts air alerts, chemical, biological, and radiological (CBR) attack warnings, radiological safety data, nuclear strike warnings, fallout warnings, and similar information of an urgent operational nature which applies to the division as a whole or to major division elements, which need not be handled through command

channels, and for which no immediate receipt or reply is required. Division headquarters, division artillery headquarters, brigade and combat battalion headquarters, and the armored cavalry squadron have organic radio sets that may transmit in this net as required. Division artillery headquarters operates a station in this net to broadcast air alert status, and the armored cavalry squadron normally is authorized to broadcast urgent reconnaissance information in this net. Each battalion and separate company is equipped with receivers for receiving information transmitted in this net.

- (4) *Division air request radio net (AM-voice/CW)*. The net control station is operated by the signal battalion and is located at the division TOC for the joint use of the G2 air group and G3 air group of the TASE. The brigade and combat battalion headquarters, and the armored cavalry squadron operate in this net.
- (5) *Army air request net (AM-RATT)*. The signal battalion operates the division station in the army air request net. This terminal also is located at the division TOC.
- (6) *Army logistics net (AM-RATT)*. The signal battalion is equipped to operate the division terminal in an army logistics net. Although designed to handle administrative support traffic, it may be employed to supplement other nets during displacement or in emergencies.
- (7) *Spot report receiver system (UHF-voice)*. This station is used to monitor close air support missions flown for the division by the Air Force. A separate set is provided for use by the G2 to monitor Air Force reconnaissance missions. The brigade and combat battalion headquarters, division artillery headquarters, and the armored cavalry squadron are also equipped with UHF-voice radio sets for use in the spot report receiver system.

f. Radio/Wire Integration Stations. An FM-voice radio/wire intergration station is operated at each signal center except at the rear echelon to connect mobile FM radio stations to the division area communication system. The system is used to establish communications between mobile FM radio stations and elements connected to the area communication system by telephone. The stations also may be used for telephone service from the signal center to using units until such time as local wire can be installed and as FM radio relay stations to establish communications between FM stations operating beyond direct FM range.

80. Tactical Application of Communication

a. *Communication Planning.* The division signal officer or the unit communication officer must be kept informed about plans for current or proposed operations and assists in their formulation.

b. *Signal Communication Support.*

- (1) The mission assigned to a unit and the tactical situation dictate the means of communication to be used. Offensive operations rely primarily on radio. In a defensive mission, wire may be used extensively. In any case, the employment of multiple means will be considered, and more than one means will usually be used.
- (2) Terrain and weather will affect the various means of communications used. Plans should include the use of vehicles and Army aircraft for messenger transport radio relay and cross country wire laying. Equipment must be sited to take advantage of its capabilities.
- (3) Enemy capabilities may include jamming of radio frequencies, radio direction finding, radio deception, and direct action against wire and messenger communication. Supplementary and multiple means of communication should be used to counteract such interference.

c. *Communication on Motor Marches.* Radio and messengers are the principal means of communication used during road marches. Army aircraft may be used to extend the messenger service.

d. *Communication in Assembly and Bivouac Areas.* Use of radio communication is held to a minimum in assembly and bivouac areas.

e. *Communication During Offensive Operations.*

- (1) *Preparation for offensive operations.* Plans for signal communication support of an offensive operation are based upon the unit operation plan. Organization for combat and mission will indicate the type and extent of signal support needed. The commander will indicate priority of support, and the operations officer will allocate portions of the available means upon the recommendations of the signal or communication officer. Communication plans insure support in the event of changes in the plan of action or employment of an uncommitted portion of the force. Radio traffic will be held to a minimum during preparations for the offensive. However, if such preparations are made during a defensive operation, the

amount of communication traffic that is normal in the defense must be maintained so that the enemy will not be warned of the attack. Signal orders, SOI extracts, and prearranged signals or codes are prepared and disseminated to all units concerned. Physical or map reconnaissance is made for probable wire routes to key control points and proposed headquarters locations.

(2) *Communication during attack.*

- (a) Maximum use of radio is made during the attack. Listening silence if in effect will usually be lifted when units begin their attacks. However, in certain instances the commander may continue listening silence until actual contact with the enemy is made. Wire may be used in some situations; however, it may be of limited value because of the speed of the attack, the distances covered, and the frequency of displacements.
- (b) Messages containing warnings of enemy air or nuclear attack and the friendly employment of nuclear weapons must be given a high precedence.

(3) *Communication during passage of lines and relief in place.*

- (a) Coordination of communications between all units concerned during a passage of lines is important. Use of radios is kept to a minimum. SOI information is exchanged between units concerned.
 - (b) During relief in place, wire lines of the relieved unit are taken over by the relieving unit so far as possible. The relieved units may be directed to continue to operate their normal radio nets for a limited period of time as a deception measure.
- (4) *Communication during exploitation and pursuit.* Maximum use of radio facilities and aircraft is necessary during exploitation and pursuit. Captured civilian and military wire circuits should be used to the maximum. Existing wire lines may be used during halts.

f. *Communication during defensive operations.*

- (1) *General.* The time available to prepare the defense and the type of defense employed will determine the extent of the communication system established. Although an extensive wire system may be established, radio net will remain open for use when needed. Constant effort is made to improve the communication network.
- (2) *Communication in mobile defense.* Communication means used in mobile defense are similar to those used in the

attack. Wire can often be used only by major unit headquarters. If possible, wire should be installed to strong-points. Prior to enemy contact, the use of radio may be restricted.

- (3) *Communication in area defense.* Wire communication is used extensively. Except during periods of enemy contact, use of radio nets is normally restricted.

g. Communication During Retrograde Movements. During retrograde movements, radio is the primary means of communication. Nets are operated consistent with the degree of security desired. Listening silence may be imposed upon units moving to the rear. Plans are made to augment signal equipment in the last elements to withdraw from a position so that normal radio traffic may be simulated. Maximum advantage will be taken of existing wire circuits. When positions are evacuated, wire is recovered or destroyed if possible to prevent its use by the enemy. Frequent passage of lines requires that special consideration be given communication between units involved. Communication in rearward positions should be established early.

h. Communication During Special Operations. Communication during special and airborne operations is covered in the appropriate manuals listed in appendix I.

Section VII. ARMY AVIATION SUPPORT

81. General

Army aviation enhances the mobility, versatility, and combat efficiency of ground combat forces. For details on Army aviation, refer to FM 1-100, FM 1-5, FM 1-15, and FM 57-35. For doctrine on control and use of airspace see FM 1-60.

82. Division Aviation Battalion

a. General. The aviation battalion is normally employed in two echelons.

- (1) One element normally consists of the headquarters and headquarters detachment and the general support aviation company. This element normally is located in the vicinity of the division instrumented airfield.
 - (a) The headquarters and headquarters detachment provides the personnel and equipment for the control and operation of the division airfield.
 - (b) The communication section of the headquarters and headquarters detachment provides internal communications support and equipment for operation in the

- division command net, intelligence net, administration/logistics net (AM-RATT), and division CG/command net (FM-voice).
- (c) The general support aviation company provides aerial surveillance and furnishes aircraft for general support as follows:
1. The utility section of the general support platoon can provide reinforcement for the airmobile company.
 2. The tactical support section of the general support platoon provides command and liaison aircraft for the division commander, staff, and units without organic aircraft.
 3. The aerial surveillance platoon contains the manned and drone systems. The drone system is employed from the forward battle area while the manned aircraft are employed from the division airfield.
- (d) This battalion may be augmented by a pathfinder detachment. When augmented, this provides:
1. Marking of air delivery and landing facilities with visual and electronic navigational aids to assure accurate delivery of air delivered, or air landed personnel and material.
 2. Assistance in navigation and control of army aircraft within its area of operation.
 3. Establishment and operation of the following types and numbers of pioneer landing facilities:
 - (a) One airplane landing zone; or
 - (b) One helicopter landing zone containing eight helicopter landing sites; or
 - (c) Two drop zones.
 4. Assistance on a reduced basis to two supported units operating over a wide area, when separated into two independent teams.
- (2) The second element consists of the airmobile company which is normally dispersed by platoons. It is used for tactical troop movements and logistical support.
- (a) Positions for these platoons are selected so that the airmobile company can be made readily available to airlift elements of the division.
 - (b) Their location should provide the airmobile company security against ground attack by its proximity to a combat unit.
- (3) The location of the division airfield is dependent upon the division mission, terrain, and location of division support command and the division main.

- (a) To support an attack, the division airfield may have to be moved forward. For security purposes, the area selected should be in close proximity to the division support command. When the aviation battalion is operating from the division support area, the maintenance battalion commander will, in coordination with the division aviation officer, place the aviation maintenance company in the vicinity of the division airfield.
- (b) The division main can be supported by establishing a heliport in close proximity to it and by utilizing elements of the tactical support section of the general support platoon.

b. Operations.

- (1) The division artillery and the brigades may be augmented by aircraft from the aviation battalion as required. These aircraft may be attached to or placed in support of the unit requiring the augmentation.
- (2) The aerial surveillance platoon of the general support company provides aerial radar, infrared, visual, and photographic surveillance and target acquisition for the general support of the division. The aerial surveillance platoon normally is employed under the general staff supervision of the G2. In certain situations it may be placed under the operational control of a subordinate headquarters. The aerial infrared section and the aerial radar section normally will be positioned at the division airfield and normally will provide general support to the division as a whole.
- (3) Aircraft provided by the aviation battalion may be used to supplement the aeromedical evacuation capability of the field army air ambulance company. When nonmedical aircraft are used for medical evacuation functions, the surgeon designates patients to be transported, and pickup and delivery points.

83. Nondivision Army Aviation Support

a. Army transport aviation units are assigned to the field army and normally are attached to corps for tactical operations. They may be further attached to or placed in support of subordinate corps units for specific missions. Normally, they are not attached below division level, except for conduct of airmobile operations which are under brigade control.

b. Plans for employing units using Army airlift units can encompass operations up to and including the tactical airlift of battalions. Requests for Army transport aviation support for tactical operations are made through command channels.

84. Employment of Army Tactical Aviation

Army tactical aviation can be employed to assist ground elements on the following missions:

- a. Exploiting the effects of nuclear weapons.
- b. Enveloping defended areas or traversing barriers.
- c. Seizing key terrain features, particularly in pursuit, exploitation, and advance to contact.
- d. Reinforcing or evacuating isolated units.
- e. Movement of reserves.
- f. Supply of critically needed items.
- g. Concentrating dispersed forces for execution of a tactical operation.
- h. Dispersing forces.
- i. Combating partisan or guerrilla forces.
- j. Movement of reconnaissance forces and patrols.
- k. Evacuation of patients.
- l. Ship-to-shore movement in amphibious operations.
- m. Performing radiological monitoring and survey.

Section VIII. MILITARY POLICE SUPPORT

85. General

Military police support to the division is provided by the division military police company under the operational control of the division provost marshal. The employment of the military police company is set forth in paragraph 42. While military police support is primarily provided to the combat elements of the division, certain functions are within the scope of the personnel support aspect of administrative support (par. 101).

86. Division Military Police Company

a. *Traffic Control.* For traffic control the military police company provides direct support to the brigades and the support command employing its platoons as described in paragraph 42c. Vehicular traffic control is accomplished through the operation of traffic patrols, traffic control posts, and information posts.

b. Straggler Control.

- (1) The area in which straggler control is established extends from the rear of units in contact to the division rear boundary. Straggler posts established by military police are located at critical points on the main roads within the division area and serve a multiple function of traffic control, straggler control, control of the circulation of individuals, and refugee control. These posts are augmented by roving military police patrols which also have a multiple function.
- (2) The military police company operates a straggler collecting point at a central location. As stragglers are collected at the collecting point, they are sorted for return to their units, evacuation to a medical facility, or other disposition as may be appropriate.
- (3) Each subordinate commander is responsible for straggler control within his own area. Commanders of units located in the division rear area assist in the control of stragglers who appear in their areas of responsibility.

c. Confinement Facilities. Convicted military prisoners normally are not confined in the division area. The military police company operates a temporary detention facility for United States personnel awaiting trial and convicted military prisoners awaiting evacuation. The military police company also provides escorts for the evacuation of military prisoners.

d. Prisoners of War (PW).

- (1) *Collection.* The military police company operates the division PW collecting point. This facility, normally operated by the same military police platoon that operates the division straggler collecting point and the temporary detention facility, is centrally located and conveniently accessible from a main supply route (MSR). All PW taken in the division area are processed through this facility except wounded PW as indicated in (2) below. After processing, including possible interrogation for intelligence purposes, the PW are held for further evacuation to the rear. Normally a PW collecting point is established by the military police platoons in direct support in rear of each committed brigade. (See FM 30-9.)
- (2) *Evacuation.* Although evacuation of PW is a division military police responsibility, large scale evacuation may require augmentation or attachment of additional military police from corps or army military police units.

Wounded PW are evacuated through medical channels. Army military police evacuate the division collecting points as arranged for by the division provost marshal. When a combat unit of the division is operating independently or semi-independently, division military police may be attached to serve as a nucleus for the PW collection and evacuation activities of the force.

Section IX. CHEMICAL SUPPORT

87. General

Guidance relative to the employment of toxics by the division will be received through command channels. There are no restrictions on the initial employment of nontoxic agents such as flame, smoke, and defoliants. After use of toxic agents is authorized, their employment will be planned and executed by the division subject to policy restrictions of higher headquarters. The division commander may then authorize subordinate units to employ toxic chemical agents. Operations involving the use of toxic biological agents will normally be planned and executed by corps and higher units.

88. Dissemination of Toxic Chemical Agents, Smokes, and Flame

a. Artillery. Artillery is capable of firing concentrations of toxic chemical agents. It is also capable of establishing smoke screens, blinding enemy observation posts, and signaling by means of smoke ammunition.

b. Engineers. The division engineers furnish technical advice and assistance to the division in laying and clearing composite minefields which include toxic chemical land mines.

c. Tactical Units. Organic weapons of combat units are capable of delivering toxic chemical agents, flame, smoke, and irritant chemical agents.

Section X. GROUND TRANSPORTATION

89. General

The armored and mechanized divisions have organic transport to move their personnel in one lift. Attached truck companies and armored carriers may be used to move infantry and airborne units for combat operations.

90. Division Transportation

a. The transportation company of the supply and transportation

battalion has cargo and tanker trucks for logistical support missions. The battalion generally is of the same basic organization for all divisions. The unique supply requirements for each type division dictate the strength and number of vehicles in the transportation company organic to each division.

b. The supply and transportation battalion moves and distributes supplies for the division. The battalion normally is retained under command of the support command commander, but elements may be attached or placed in support of units when they are operating on independent or semi-independent missions.

c. In some cases, it may be necessary to motorize infantry or airborne units with trucks of the supply and transportation battalion.

Section XI. PSYCHOLOGICAL WARFARE

91. General

One loudspeaker and leaflet company is assigned to a field army and normally is available to support division operations. In addition, a mobile radio detachment from the radio broadcasting and leaflet battalion of theater army may be attached to the company.

a. Loudspeakers. The loudspeaker is used for the dissemination of specific short-range tactical propaganda. Loudspeakers are used primarily in tactical and consolidation operations. Appeals may be designed to encourage surrender of individuals or small units, to weaken combat unit morale, to control prisoners of war and civilians, and to assist in civil affairs. Normally, one loudspeaker team will be attached to a division.

b. Leaflets. Leaflets are useful in both strategic and tactical operations. They include news sheets and appeals and cover items ranging from general information to specific action. Dissemination means include artillery shells, aerial bombs, patrols, and agents. Targets range from large civilian groups to specific small military units.

92. Planning

G3 is responsible for planning and integration of psychological warfare in support of division missions. Requests for support are submitted through the corps psychological warfare officer (FM 33-5).

Section XII. MEDICAL SUPPORT

93. General

Medical service for the division is furnished by the medical

battalion which is assigned to the support command. The battalion headquarters and support company normally operates in the division support area, furnishing service to the support command and division troops. Committed brigades receive medical service from medical companies attached to or placed in support of them. Additionally, these companies furnish area medical service. Higher echelons normally evacuate patients from the division area. Further details on medical support are in FM 54-2 and FM 8-15.

Section XIII. PERSONNEL AND ADMINISTRATION

94. General

a. The G1 exercises general staff supervision over all personnel activities in the division except the administration of military justice. In addition to the combat and combat support unit commanders, those special staff officers and commanders whose duties normally include personnel support activities and who work in close coordination with the G1 are as follows:

- (1) Adjutant general.
- (2) Inspector general.
- (3) Staff judge advocate.
- (4) Chaplain.
- (5) Provost marshal.
- (6) Finance officer.
- (7) Information officer.
- (8) Surgeon.
- (9) Administration company commander.

b. The administration company serves as a carrier unit which provides support for certain elements of the division staff which furnish necessary personnel and administrative services to sustain the division. This includes replacement support and a centralized-mechanized personnel service for all units that are assigned and attached to the division. For details of the employment of the administration company, see FM 12-11.

c. Personnel and administrative (P&A) services for the division and attached units are provided by the personnel services division in the adjutant general's section. The majority of personnel of this section operate in the division rear echelon during combat. When necessary, predesignated teams accompany any temporary or permanent detachment of organic units from the division. In a like manner, unit personnel sections attached with nonorganic elements to the division are absorbed and used in the personnel services section.

95. Personnel Services

a. The adjutant general's section has the following principal functions and operates in accordance with doctrine contained in FM 101-5, FM 100-10 and FM 12-11:

- (1) Personnel services.
- (2) Administrative services.
- (3) Postal services.
- (4) Special services.
- (5) Replacements.

b. Electrical accounting equipment (EAM) is integrated in the adjutant general's section to support personnel services and other applicable activities in the division.

c. Personnel administration at unit levels.

- (1) Brigade level—brigade commanders are responsible for effective overall management of their commands but normally will not enter the P&A channel between division and the battalions attached to the brigade. However, the brigade S1 will maintain normal staff channel contact with battalion S1's and will keep the brigade commander informed of personnel problems, trends, and accomplishments. The brigade personnel staff noncommissioned officer will provide liaison for the brigade headquarters and headquarters company and assistance to his counterparts in the battalions.
- (2) Battalion level—battalion commanders are responsible for initiating P&A actions and for the effective overall personnel management of their commands. The approval, supervisory, and nonrecord keeping functions of battalion commanders are defined as battalion level P&A. In this connection many P&A actions will properly bypass any battalion level activity. The battalion personnel staff noncommissioned officer maintains continuous personal contact with all company clerks, first sergeants, and company commanders and the various special staff elements of the division rear echelon.
- (3) Company level—the company commander is the primary manager of Army personnel. His assistants for P&A are the executive officer, first sergeant, and company clerk. The actions which can be accomplished best within the company, battery, or troop are defined as company level P&A.

96. Replacements

a. The replacement detachment is under the control and supervision of the adjutant general. This section normally operates in the vicinity of the division rear echelon and processes all replacements received by the division. The normal capacity of the section is 300 replacements at one time which can be increased if additional control personnel and equipment are provided.

b. The replacement detachment is designed to handle individual replacements or packets to include platoon size units. The adjutant general assigns individuals and packets in coordination with G1 and G3. Incoming units of company or larger, which are assigned to replace entire units of the division will provide their own administration. G1 recommends assignment of such units, in accordance with G3 priorities. Since entire units normally are assigned to a division organization while it is in reserve, responsibility for processing and training a newly assigned unit will rest with the gaining division unit. The adjutant general will furnish teams from the personnel service division for the processing of records which is done in the replacement detachment for individual replacements.

c. Replacements are assigned to the division on the basis of daily replacement status reports submitted to higher headquarters by the division adjutant general. Replacements may be from the zone of interior, hospital returnees, rotation personnel, and casualties being returned to duty from miscellaneous sources. The majority of replacements will arrive in the theater from the zone of interior. For details on the organization and operation of the replacement section and Army replacement system, see FM 100-10 and FM 12-11.

d. Units will submit requirements for replacements by transmitting prepunched EAM cards, through channels, to the division adjutant general. Intermediate headquarters will not consolidate the requirement. Forwarding of the individual card constitutes command approval of the requirement.

e. The division commander, the staff, and higher headquarters are informed of currently effective strengths by means of the personnel daily summary.

97. Division Band

In addition to furnishing music the band may be employed in combat, combat support, and administrative support roles when necessary. (See FM 54-2.)

98. Morale, Personal Services, and Rotation

a. The division support command operates the Army exchange functions within the division. Army exchange supplies are normally distributed by the division supply and transportation battalion. Gratuitous issue items are normally distributed with Class I supplies.

b. The postal service, special services including establishment of rest camps, and awards and decorations programs are administered by the adjutant general.

c. Procedures are established for rest and relaxation in order to maintain and refit men for combat and other military duties. A rotation plan is established to conserve manpower and increase combat efficiency.

99. Legal Assistance

In addition to his military justice function, the division staff judge advocate and his section provide legal advice and assistance to individuals of the command, in the preparation of wills, powers of attorney, and other legal instruments.

100. Financial Service

The division finance section disburses money to agent officers for the payment of troops and civilian labor. It is located in close proximity to the adjutant general's section.

101. Discipline, Law, and Order

Each subordinate commander is responsible for the discipline of his unit and the enforcement of law and order in his area of responsibility. Division military police are employed to enforce law and order in areas not assigned to a subordinate commander and to support subordinate commanders as required. Military police operations are covered in paragraphs 94 through 101.

Section XIV. GRAVES REGISTRATION

102. Concept

The dead are normally evacuated from the division area for interment. Details of grave registration service are covered in FM 10-63, FM 101-5, FM 54-2, and AR 638-30.

103. Collection, Evacuation, and Burials

a. In combat, the division is augmented by a graves registration platoon, attached to the supply and transportation battalion. Col-

lecting and evacuation sections of this platoon operate forward collecting points, normally one per brigade. Combat units are responsible for evacuation to these collecting points. The platoon also provides the division collection, identification, and evacuation section which operates the division graves registration collecting point.

b. The graves registration collecting point is located a short distance from the MSR near the supply and transportation battalion. It should be isolated from the view of other activities.

c. The dead are identified as early and as fully as possible. Units normally evacuate their dead with their personal effects from forward areas in unit transportation returning from other tasks. In nuclear situations, special graves registration task groups may be formed, including sufficient transportation to evacuate the dead promptly or to take other appropriate measures.

d. Mass burials are used only as an emergency measure when necessitated by sanitary and morale considerations. They must be authorized by proper authority and reported through grave registration channels.

e. Isolated burials are used only as an emergency measure and are fully documented and reported through graves registration channels.

Section XV. CIVIL AFFAIRS

104. General

During combat, the primary purpose of civil affairs (CA) activities is to support division operations and secure necessary civilian assistance. The division's CA operations further the CA objectives of the division and higher echelons and assist in the future conduct of military operations in the locality. Details of CA operations and policy are covered in FM 100-10 and FM's in the 41-series.

105. Means Available

a. *Organizations.* A CA section (G5) may augment the division staff and a CA command support platoon is normally attached to the division. The platoon normally consists of a platoon headquarters and a language team. Additional CA units and functional specialist teams are attached to the division when required.

b. *Supplies and Equipment.* Supplies and equipment required in discharging CA tasks are procured locally when possible. Resources provided for the support of combat operations are diverted

to CA activities only when success of the combat mission requires such action.

106. Activities During Combat

a. Control of Civilians. The flow of refugees and displaced persons can clog roads and access routes to a degree that significantly impedes the conduct of operations in the division area. The division must control the civilian population in its area. Security must be maintained, tactical areas cleared, and roads kept free of congestion. Measures taken may include the complete evacuation of forward areas, restriction of civilian movement in certain areas and to certain roads, and selective evacuation of suspected hostiles. A civilian collecting point may be established in a remote part of the division rear area to facilitate the evacuation or control of civilians. The collecting point is operated by the CA command support platoon.

b. Civilian Assistance. Support for the combat mission of the division may be secured from the local population in the form of intelligence, counterintelligence, operations against irregular forces, labor, supplies, housing, transport, medical care, and maintenance.

CHAPTER 5

OFFENSE

Section I. GENERAL

107. General

This chapter provides guidance for employment of the division in offensive combat. Certain types of operations (i.e., guerrilla, amphibious, airborne, etc.) and certain conditions of climate or terrain (i.e., desert, arctic, jungle, mountains, etc.) will dictate modification in the practical use of these principles. Offensive operations under such conditions are discussed in chapter 9 and in the appropriate publications listed in appendix I.

108. Concept of the Offense

The division, organized for combat to make the best use of the capabilities of all its elements, employs a combination of firepower and maneuver to accomplish offensive missions.

a. Under conditions of active nuclear warfare, the division exploits without delay the effects of friendly nuclear fires. Maneuver forces move through, over, or around the effects of nuclear fires in order to dominate, neutralize, or destroy enemy forces, to control terrain objectives, or to disrupt enemy rear areas.

b. Under conditions of nonactive nuclear warfare, the firepower available to the division is substantially reduced. However, the possibility that the enemy may employ nuclear weapons dictates that the division avoid presenting lucrative targets. Against an enemy possessing an air arm capable of dominating the airspace for appreciable periods, the division avoids concentrations that will invite either nuclear or nonnuclear airstrikes.

c. Under conditions of nonnuclear warfare, nonnuclear fires are used to support maneuver and to fix, interdict, or destroy enemy forces. Sufficient firepower is generated by massing nonnuclear fires in critical areas. Chemical fires may be used to increase combat power.

109. Fundamentals of Offensive Action

a. In the offense, combat power is attained by forming mobile, responsive combined arms forces.

b. The attack is planned carefully and executed aggressively.

c. Once the attack is launched, the division attempts to gain its objective in the shortest possible time. To insure rapid execution, the commander exploits all means of tactical mobility.

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

e. Offensive action requires the concentration of superior combat power at the decisive point and time. Enhancing our mobility and degrading that of the enemy is fundamental to attainment of decisive combat power.

f. Fire superiority must be gained early and maintained throughout the attack to permit freedom of maneuver without prohibitive loss. The effects of fire must normally be exploited by maneuver.

g. The attacker maneuvers to exploit the effects of his fire, to avoid enemy strength, and to close with and destroy the enemy by assault. Maneuver may also force the enemy to fight on unfavorable terrain or lure the enemy into a target for destruction by fire.

h. Plans must provide for the exploitation of any advantage accruing during the attack. This requires a reserve of troops and firepower which provides the commander means to exploit successes. When the opportunity for decisive action presents itself, the commander commits his total resources and demands the ultimate from his troops. Pressure applied day and night against a weakening enemy denies him respite from battle, the opportunity to recoup losses, or the opportunity to gain the initiative. Failure to capitalize on opportunities will result in slow, inconclusive attacks in which the attacker usually will suffer heavy losses.

i. Terrain is important in offensive combat but only so far as it provides advantages which can be exploited. Plans often are directed toward the early domination of key terrain features which give an advantage of observation, cover and concealment, and fields of fire; which enhance maneuver and support; which control routes required by friendly and enemy forces; which allow control without placing forces in static postures; or which afford additional security.

j. In the attack there are three principal tasks: holding the enemy in position, maneuvering against him to gain an advantage, and at the decisive time, delivering an overwhelming attack to destroy him.

k. Surprise is always sought. It may be gained by choosing an unexpected time, place, direction, type, or strength of attack. It is enhanced by deception.

l. An aggressive attack inherently provides some security.

m. The commander insures that the attacks of his subordinate units are coordinated and contribute to the accomplishment of the command's mission by assigning missions, allocating means, and applying other necessary controls.

n. Dispersion is employed to reduce vulnerability but only to the extent where units will remain responsive to the will of the commander.

110. Forms of Maneuver and Offensive Operations

a. General. The basic forms of offensive maneuver are the penetration and the envelopment. The infiltration is a variation of the penetration; single and double envelopments and turning movements are variations of the envelopment. The exploitation is an offensive operation which may follow a successful penetration or envelopment and which employs the fundamentals of the penetration and the envelopment to accomplish the mission. The pursuit is an extension of a successful exploitation.

b. Penetration. In the penetration the attacking force ruptures the enemy's defensive position, destroys his forces, installations, and control means, and seizes objectives which break the continuity of his defense. This action facilitates the destruction in detail of his divided force and the movement of forces deep into his rear areas in exploitation (pars. 149-152).

c. Envelopment. In the envelopment the attacking force avoids the enemy's main defensive strength by going around or over it to seize an objective in his rear which disrupts his communications and support, cuts his escape routes, and subjects him to destruction in position. In the turning movement, a variation of the envelopment, the attacking force passes around or over the enemy's main force to seize an objective deep in the enemy's rear which will cause him to abandon his position or to divert major forces to meet the threat of the turning force and thus fight on the ground chosen by the attacker (pars. 153-157).

d. Exploitation. In the exploitation the attacking force is given objectives deep in the enemy rear. It advances with maximum speed, avoiding, bypassing, or breaking through resistance in order to secure or destroy, or neutralize objectives in minimum time. In the pursuit, a phase of the exploitation, the primary objective of the attacking force is to destroy the enemy (pars. 164-169).

111. Choice of Maneuver

A higher commander seldom dictates the form of maneuver to

be adopted by the division. The mission assigned, including the tasks derived from it, and the requirement for secrecy may impose limitations in time and direction of attack. The mission of the division, characteristics of the area of operations, disposition of opposing forces, and the mobility differential between opposing forces are analyzed to determine the best form of maneuver to be adopted. Normally, terrain, the available time, and the opposing situation are the principal factors in choosing the form of maneuver to accomplish the mission.

Section II. BASIC CONSIDERATIONS OF OFFENSE

112. Mission

Accomplishment of the mission is the goal toward which the effort of the command is directed. At division and lower levels, it may encompass the domination or neutralization of a terrain feature or a locality or the destruction of an enemy force. Additional tasks may be derived from the stated mission. The mission will state the objectives assigned to a force. The objective for an armored division participating in a corps attack is normally the corps objective. The objectives assigned subordinate elements of the division contribute to the accomplishment of the division's mission. Subordinate units normally are assigned only final objectives. Intermediate objectives are assigned only when their seizure or neutralization is essential to the division mission. Subordinate commanders must be fully informed as to the purpose of their attacks and objectives. Commanders must kindle aggressiveness in subordinates and accord them full use of their initiative. Opportunities to destroy the enemy may be presented to the subordinate that could not possibly be foreseen by the higher commander. Procedures must allow such opportunities to be exploited without undue delay.

113. Terrain and Weather

a. Observation. Aerial observers and surveillance equipment may reduce the importance of high ground for observation. Line of sight ground surveillance equipment, however, relies largely on high ground for maximum effectiveness. When weather or other conditions prevent the use of aerial observers or aerial surveillance equipment, alternate means, such as visual observation posts, listening posts, and patrols must supply essential information.

b. Obstacles.

(1) Nuclear fires may produce obstacles by induced radiation,

fallout, fires, or blowdown. Close coordination between nuclear fires and maneuver is essential to minimize the impact of nuclear effects on maneuver. An otherwise acceptable scheme of maneuver may have to be rejected because of the probable effects of planned nuclear fires, or engineer support and additional means of mobility may be required to overcome the obstacles so produced.

- (2) Small enemy forces determinedly defending obstacles can delay or cause attacking forces to mass. This may require the use of nuclear fires to destroy forces which might otherwise not be considered remunerative targets. Armored vehicles, trucks, and aircraft, as well as foot troops, are used to cross or bypass obstacles with maximum speed.
- (3) Obstacles both natural and artificial, must be considered in organizing the division for combat.

c. Cover and Concealment.

- (1) Skillful use of cover and concealment contributes materially to achieving surprise and reducing losses.
- (2) Concealment impairs the enemy's ability to locate targets; however, wooded or built-up areas and deep valleys or ravines may increase casualties to inadequately protected troops from nuclear weapons' secondary effects or reinforce the blast effect. Certain areas offer good concealment as well as good cover from nuclear effects and favor tactical plans which use these areas. For example, areas containing numerous mineshafts, caves, and tunnel-type fortifications afford good protection from nuclear weapons and also provide concealment.
- (3) Areas containing numerous small patches of woods, underbrush, or small villages may provide good concealment for dispersed small units of the division.
- (4) Darkness, fog, snow, dust, smoke, and rain provide concealment. Movement and attack under these conditions, especially darkness, are normal.

d. Fire. Good fields of fire enhance the effectiveness of the division's weapons. In the attack, the division seeks to avoid enemy positions which have good fields of fire. If such defenses cannot be avoided, smoke, speed of movement, armor shielding, supporting fires, and deceptive measures reduce their effectiveness.

e. Key Terrain. The commander's plan is directed toward the early control or neutralization of terrain which is essential to accomplishing the mission in the shortest possible time and to

maintaining the speed and momentum of the attack. Complete control of specific terrain is maintained when necessary to create favorable conditions for maneuver and use of fire.

f. Avenues of Approach.

- (1) Possible avenues of approach are analyzed based upon the availability of observation, cover and concealment, fields of fire, and space for dispersion and maneuver; ease of movement considering the mobility of the force, obstacles, cross-country trafficability, road and trail network, and the possible effect of adverse weather and the length and directness of the avenue to the objective. Nuclear warfare increases requirements for dispersion space. The possible intensification of nuclear effects in valleys and the possible creation of obstacles by nuclear fires must also be considered.
- (2) In selecting flight routes for airmobile operations, the major concern is concealment. Routes are selected which provide defilade and are easy to follow. Heavily forested and swampy areas provide good routes as ground troops have little opportunity to see or fire at low-flying aircraft. Ridges are avoided, when possible, to reduce the possibility of detection by radar. Steep defiles or canyons are avoided because of the possible effects of downdrafts on control of aircraft.
- (3) Avenues of approach are used which provide for rapid movement to objectives and the space necessary for dispersion. Enemy defenses and capabilities along the better avenues of approach or the possibility of increasing surprise by the use of other less desirable avenues warrant careful consideration in the selection of an avenue of approach to be used by the attacking force. Fires may be used to neutralize forces occupying terrain which dominates an avenue of approach.

g. Weather.

- (1) *General.* Enemy tactics and the obvious advantages gained from offensive combat at night and under adverse weather conditions dictate that commanders not reduce the tempo of actions because of climatic or visibility conditions. Rather, they must take full advantage of these conditions to gain surprise, to shift dispositions, to resupply, and to press the attack.
- (2) *Effect of visibility on operations.*
 - (a) Poor conditions of visibility present several advantages

to attacking troops. In addition to surprising the enemy, attacking troops will suffer fewer losses than during clear visibility attacks. Night operations will cause concern and disruption of enemy plans because of his uncertainty about the situation.

- (b) Ground resupply operations conducted during such conditions are less vulnerable to enemy action.
 - (c) Maintenance time will be at a premium and maintenance must be accomplished during darkness as well as in daylight.
 - (d) The work of disaster teams and the evacuation of casualties must progress under all conditions.
 - (e) The danger of daylight discovery or identification of critical installations such as headquarters and firing sites, will call for frequent night displacements.
- (3) *Use of smoke.* Conditions of poor visibility will have to be produced artificially on frequent occasions when the enemy has air superiority or good observation. In addition to the use of smoke to limit visibility, smoke may be used to attenuate nuclear effects.

114. Enemy

The enemy situation is studied to determine strengths, dispositions, capabilities, and tactics. His weakness is exploited and his strength is avoided. Knowledge of the enemy's dispositions influences the selection of the form of maneuver and the division organization for combat. Knowledge of the enemy's capabilities and tactics and peculiarities permits a commander to determine more accurately the relative risks involved in a course of action. Friendly operations must be continuously evaluated against the enemy nuclear capability. Operational planning considers the impact of enemy use of nuclear weapons and provides for contingency action to reduce the disruption caused by such enemy attack.

115. Fire Support

a. General. Fire and maneuver complement each other and can be used together in many combinations. Fire support planning is concurrent and integrated with maneuver planning. Preparatory fires weaken the enemy physically and psychologically for the assault. Mobile firepower in support of the attack assists in maintaining momentum. Fires cover the reorganization of the force and control the objective.

b. Nuclear Fires. Use of nuclear fires may permit adoption of

courses of action which would otherwise be infeasible. In support of the attack they promote the rupture of enemy positions with reduced requirements for maneuver units. Fallout may be employed to blanket areas of poorly defined targets, create obstacles, canalize enemy movement, disrupt enemy intentions, and force relocation of his support installations. The employment of tactical fallout must be based on a consideration of the expected tactical advantage, troop safety, effect on adjacent commands, future use of the area which will be contaminated, and any restriction imposed by higher headquarters. Nuclear fires may enable the attacking force to exploit immediately. Nuclear weapons held in reserve reduce the requirements for troop reserves and provide the commander a powerful means of influencing the action. The decisiveness of nuclear fires may obviate the need for mutual support between widely separated units.

c. Chemical. Nonpersistent toxic chemical attack produces casualties without the destructive effect of nuclear fires. Short duration, persistent toxic chemical concentrations can retard or block enemy movement or restrict his occupation of terrain areas. Toxic chemicals, in conjunction with nuclear fires, increase the casualties inflicted upon the enemy and retard his efforts to reorganize his defense.

d. Air. Tactical air is capable of delivering various munitions against enemy forces and positions.

e. Artillery. Artillery provides close continuous support. It is suited to the neutralization and destruction of enemy units during the movement of attacking forces to assault positions. Artillery furnishes the bulk of the division's preparatory fires, supports the attack, and covers reorganization of the force whenever the latter becomes necessary.

116. Mobility

The distance to an objective, the time available for its destruction or control, the terrain along the avenues of approach, and the capabilities of the defending force affect the manner in which the attacking force must move. The division organization for combat must reflect these considerations.

117. Frontages and Depth

a. Frontage. The forces available will be a major consideration in determining the frontage to be assigned an attacking unit. Other factors include—

- (1) The anticipated enemy resistance.

- (2) The unit's mission.
- (3) The unit's mobility and that of the enemy.
- (4) The available fire support.
- (5) The range of the unit's weapons and the need for its subordinate elements to be mutually supporting.
- (6) The range of the unit's signal communications.
- (7) The capabilities of the unit's surveillance equipment.
- (8) The terrain.
- (9) The space needed by the unit for maneuver and dispersion.
- (10) The road net.
- (11) The speed with which the unit is expected to move.

b. *Depth.*

- (1) *General.* In the attack, depth is obtained by placing brigades in column or echelon formations (fig. 6). Formations within brigades can be used to vary the effect; for example, the leading brigade of a column of brigades can be weighted and advance with battalion task forces abreast, thereby covering a broad front and placing considerable combat power forward. This formation could be more advantageous than one in which the three brigades advance abreast, each using a column of battalion task forces as its formation. Ordinarily the most versatile formation is one which retains as many uncommitted brigades as possible commensurate with the considerations listed in *a* above.
- (2) *Column of brigades.* This formation may be adopted when the division attacks on a relatively narrow front. By providing the maximum depth to the attack, the column of brigade facilitates retention of initiative, provides versatility, and enhances security. Following brigades can move through or around the leading brigade to maintain the momentum of the attack or to meet threats to either flank; however, deployment of forces is slow.
- (3) *Two brigades abreast.* This formation may be adopted when the division attacks on a wide front when great depth is not required. The uncommitted brigade, as the division reserve, provides versatility and security.
- (4) *Three brigades abreast.* This formation lacks depth but may be used when it is desirable to have the maximum combat power forward on a broad front and when little

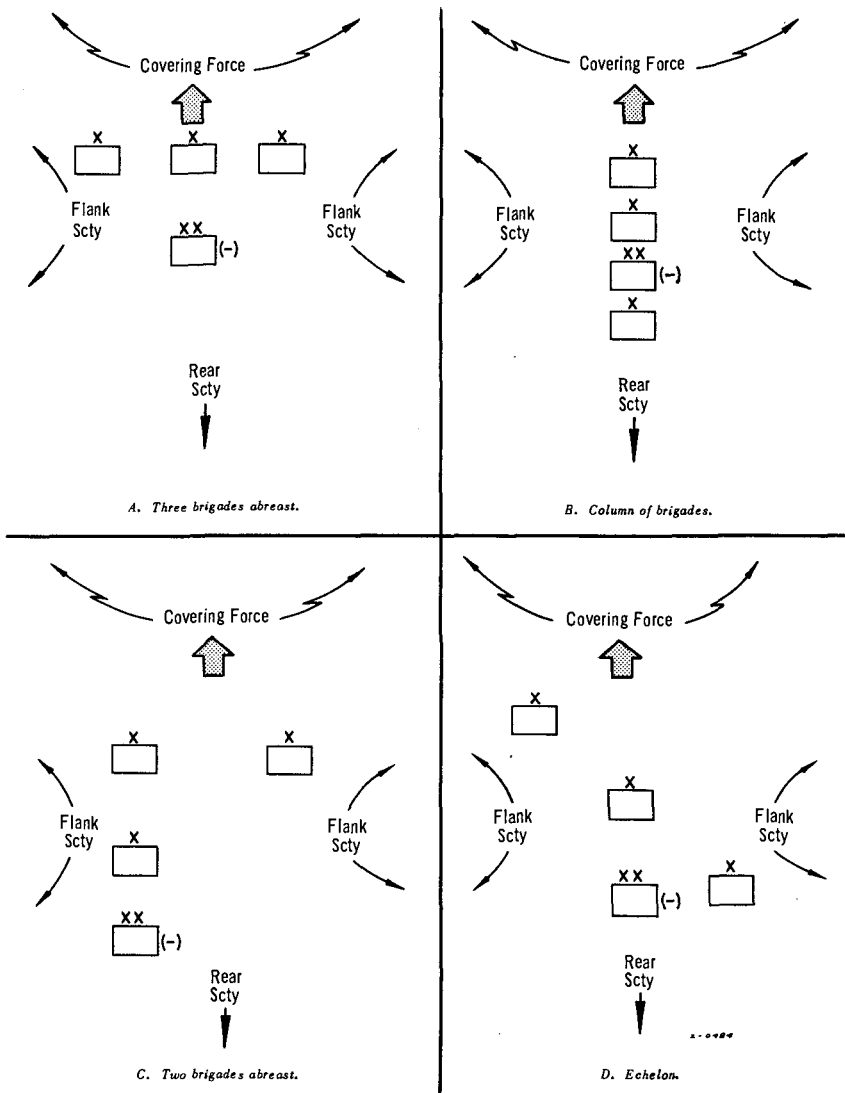


Figure 6. Combat formations.

or no reserve is needed. It is also used when considerable information about the enemy is available and speed is essential.

(5) *Brigades in echelon.* This formation provides advantages listed in (2) above and furnishes security in depth toward a flank.

c. Frontages and Depth Within the Brigade. The considerations applicable to determining frontages and depth on the division level apply on the brigade level.

118. Deployment of Forces

a. General. The division's forces may be distributed as a main attack, a supporting attack, and a reserve with one brigade assigned to accomplish each of these tasks. Designation of a main and supporting attack in orders is avoided. When two or more brigades are assigned portions of the division final objective or tasks of equal importance, there will not be a main and supporting attack *per se*. The division commander may at any time exploit success in a particular area by shifting the weight of his combat power.

b. Main Attack. The main attack is directed against the objectives which best contributes to accomplishment of the division's mission. The commander must practice flexibility in assigning objectives. Although one objective may appear to offer the best contribution to success of his mission, another may develop suddenly. The main attack is accorded first priority in the allocation of combat power. It must be provided the means to gain decisive superiority over the enemy.

c. Supporting Attacks.

- (1) A supporting attack should contribute to the success of the main attack by accomplishing one or more of the following:
 - (a) Control terrain which enhances, or destroy forces which hinder, the maneuver of the main attack.
 - (b) Pin the enemy down (or tie him) to a terrain feature.
 - (c) Deceive the enemy as to location of the main attack.
 - (d) Force the enemy to commit reserves prematurely or in an indecisive area.
 - (e) Prevent reinforcement opposite the main attack.
- (2) Adequate, though minimum, means are provided for the accomplishment of these tasks. Nuclear weapons may be used to accomplish tasks which might otherwise require the commitment of large bodies of troops.

d. Reserves.

- (1) *General.* The division normally retains a reserve to enter combat offensively at a decisive time and place to exploit success and complete the accomplishment of the mission. A reserve also provides the commander a means of dealing with unforeseen contingencies. It adds to security, although this is not the principal reason for its retention. Reserves may consist of firepower, or troops, or both. Mobile reserves, in effect, vastly enhance the potential of a reserve. The reserve may be used to—

- (a) Exploit success of friendly nuclear fires.
 - (b) Reinforce the attack.
 - (c) Maintain or increase the momentum of the attack.
 - (d) Defeat enemy counterattacks.
 - (e) Provide security.
- (2) *Size of reserve.* A deep objective, limited knowledge of the enemy situation, inferior combat power, or inability to visualize the attack to its final objective requires the retention of a stronger reserve than in situations where these conditions do not pertain. When attacking an enemy known to be of inferior mobility, the reserve may be smaller than when attacking one of equal or superior mobility.
- (3) *Location of the reserve.* Dispersal of the reserve by combined arms teams into multiple assembly areas or march columns provides protection from nuclear attack. Reserves are located—
- (a) To permit their rapid movement to points of probable employment. Availability of the reserve for employment is based on time rather than distance from the point of employment.
 - (b) To favor the main attack.
 - (c) To provide security to the command.
 - (d) To provide maximum protection against hostile observation and fire.
- (4) *Nuclear weapons.* The commander normally holds a portion of his nuclear weapons in reserve. Nuclear weapons in reserve reduce the requirement for a large troop reserve.
- (5) *Reconstitution of reserve.* When the reserve is committed, provisions are made for reconstituting a reserve at the earliest practicable opportunity.

119. Division Organization for Combat

a. General. The general considerations for organizing the division for combat are contained in paragraphs 54 and 55 and are applicable to offensive operations.

b. Tanks. A brigade is tailored strong in tanks when—

- (1) The terrain does not preclude their employment in substantial numbers.
- (2) Shock action and speed are desired.
- (3) The enemy is strong in tanks.
- (4) Armor shielding against small arms, artillery, and nuclear effects is required.

c. *Infantry.* A brigade is tailored strong in infantry when—

- (1) The enemy positions are organized strongly with anti-tank defenses.
- (2) The terrain precludes employment of substantial numbers of tanks.
- (3) An obstacle must be breached.
- (4) A large built-up area must be controlled or neutralized.

d. *Mechanized Infantry.* A brigade is tailored strong in mechanized infantry under the conditions listed in c above and when it is necessary that infantry and tank elements have comparable mobility, and when armor shielding against small arms, artillery, and nuclear effects is required.

e. *Airborne.* A brigade will contain airborne infantry when its mission includes parachute assault.

f. *Armored Cavalry.* The squadron is normally used under division control on reconnaissance and security missions. However, the squadron may be attached to a brigade, or its armored cavalry troops or air cavalry troops may be attached to brigades. The squadron will be appropriately reinforced as required by its mission. If it is required to control terrain or destroy large enemy forces, the squadron may require the attachment of infantry and tank elements and suitable artillery and engineer support. The squadron can be used as the nucleus of a task force.

g. *Artillery.* Normally a battalion of 105-mm howitzer artillery is assigned the mission of direct support of each committed brigade. When a brigade is not committed, the battalion which normally supports it is given a general support mission or a general support reinforcing mission. The 155-mm/8-inch howitzer battalion (missile/howitzer battalion—airborne division) and the missile battalion are given general support or general support reinforcing missions. If a brigade is making the division main attack, its firepower is weighted by reinforcing its direct support artillery battalion. If conditions preclude centralized control, the 105-mm howitzer battalions and other firing elements of the division artillery may be attached to committed brigades. All artillery attached to a brigade is normally placed under a designated artillery commander who acts as artillery officer for the brigade.

h. *Engineers.* Engineer units may be attached or placed in support of brigades in the offense as the situation dictates, although some situations may require centralized control of all engineer effort at division level. When early commitment of the reserve is anticipated, appropriate engineer elements are designated for attachment to or support of it.

i. Signal. The signal battalion provides direct communication support to the brigades. See paragraph 80.

j. Medical, Supply, Transportation, and Maintenance. The brigades' requirements for medical, supply, transportation, and maintenance support can be met by attachment of appropriate units or by support under centralized control.

120. Brigade Organization for Combat

In the offense, brigades organize for combat normally using the combat battalions as nuclei for battalion task forces by cross attaching companies or, if necessary, employing battalions without cross attachment, and by providing support units as necessary. Mission, terrain, speed of movement, fire support, and enemy resistance are considered in determining the organization for combat adopted by the brigade.

121. Security

a. The purpose of security in the offense is to avoid unexpected interference by the enemy, to maintain the integrity of the formation, and to gain and maintain freedom of action. The violence and speed of the attack frequently offer the best security by keeping the enemy so heavily involved that he has neither time nor means to endanger success of the attack. The retention of a reserve enhances the security of the command.

b. Widely dispersed attack formations tend to bypass enemy strong points and to expose friendly flanks. Bypassed enemy forces must be contained if they constitute a significant threat or reported to higher headquarters or to following and supporting units. Flanks and gaps between units are secured by patrols, flank guards, and echeloned reserves, or by surveillance and fire. Administrative and combat support units may require protection from ground attack but these considerations must not slow or divert the momentum of the attack.

c. Early warning of impending enemy countermeasures and the collection of timely and accurate information are essential to security. Reconnaissance forces such as the armored cavalry squadron and aviation battalion are used extensively in this role. In addition, the reconnaissance and other intelligence capabilities of committed units are exploited for this purpose.

d. The division adopts passive measures to protect itself from nuclear and chemical attacks by speed of movement; cover and concealment including that offered by darkness; dispersion; deception; and the protection of armored vehicles, protective clothing, and fortifications including foxholes.

122. Tactical Cover and Deception

a. Tactical cover and deception are used in the offense to mislead the enemy as to the division's dispositions and plans, and to keep him off balance and unable to act decisively. Tactical cover and deception are considered concurrently with the development of the tactical plan.

b. Active and passive deception measures may be limited by the time available to develop the deception story, time to inject it into the enemy's intelligence channels, and the time required for the enemy to evaluate the information and to react to it. These measures must be authorized by the next higher headquarters.

c. Supporting attacks, feints, ruses, raids, and demonstrations, including the use of nuclear fires, mislead the enemy as to the location of the main attack. Limiting the use of radio communications may aid in concealing the time of attack; however, it must be recognized that, in many instances, radio silence will alert the enemy to the attack. Use of dummy equipment and simulation devices mislead the enemy as to the size, type, and intentions of attacking units. Camouflage conceals the existence of units, and decoys draw enemy fires away from actual units.

d. See FM 31-40 for detailed information on tactical cover and deception measures and planning.

123. Administrative Support

Adequate administrative support is provided to maintain the momentum of the attack without interruption through the attainment or destruction of the final objective. Maximum use is made of external administrative support agencies to reduce the load on division elements. Division administrative support means are kept forward to insure timely supply and evacuation and to relieve tactical commanders of such administrative support matters as CA and PW. Frequently during fast-moving actions such as the exploitation, captured enemy supplies and materiel, particularly transportation and fuel, ease the burden on the supply system and increase the division's mobility.

124. Preliminary Operations

a. *Movement to the Area of the Attack.* The division may reach the area in which the attack will be conducted either in a covered movement protected by friendly forces in contact with the enemy or in an advance to contact as discussed in paragraphs 139 through 146.

b. Relief in Place and Passage of Lines. When the attack is preceded by a relief in place or passage of lines by all or part of the division, liaison with the units to be passed through or relieved must be established. Relief operations are discussed in chapter 8.

c. Developing the Enemy Position. Inasmuch as the defender attempts to screen his defensive position with covering forces, a thorough and aggressive reconnaissance by advance security forces is employed to determine the strength and location of the enemy's main position. If the situation is such that this action fails to develop the position, initiation of the attack may take the form of a reconnaissance in force. The command exploits opportunities which occur during the development of the enemy's position.

d. Intelligence. All intelligence means are used to generate detailed intelligence which will provide the basis for sound plans. Emphasis is directed toward the identification, size, and composition of targets, especially suitable nuclear targets, and the rapid dissemination of target information to the FSE. In addition, knowledge of the exact location of all friendly elements is of prime importance. Information sought also includes the hostile organization of the ground, unit identifications, the location and extent of obstacles, artillery and mortar positions, nuclear storage and delivery sites, locations of headquarters installations and reserves, and avenues of approach into and within the position. Information available from other units which are in contact with the enemy is most valuable.

e. Final Preparation of the Attacking Force. The division may launch coordinated attacks from assembly areas or from march formations. If rapid action is required, the division attacks piecemeal, committing units as they become available.

125. Conduct of the Attack

a. Considerations affecting the conduct of the attack include the mission, weather, terrain, enemy situation, fire support available, and the degree of air and ground mobility available. The following discussion is general in nature; conduct of the attack applicable to specific forms of maneuver is discussed in succeeding sections.

b. Immediately preceding the attack, a preparation of nuclear, nonnuclear, and/or chemical fires may be fired. The preparation is coordinated with the movement of attacking units. All means available are employed to continuously and accurately locate friendly units to make the best use of combat power.

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

d. The attack plan is vigorously executed and all favorable developments exploited. If the attack lags in one portion of the zone, the weight of the attack is shifted to the area offering the greatest 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. Units following reduce isolated enemy resistance and mop up as necessary or within their capability.

e. The attack may be a single rapid advance and assault until the division objective is seized, neutralized, destroyed, or overrun, or 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 may remain in their carriers or may move dismounted. As enemy resistance is encountered, the attacking echelons converge, following closely 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 objective, 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 until their fires are masked. Nuclear fires may make the assault unnecessary or reduce greatly the casualties which could be received during the assault. The assault is a short, well-coordinated effort which overruns or destroys 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. Its vulnerability must be evaluated against the requirement for immediate availability. Dispersed locations and the organization of the reserve for anticipated combat reduce its vulnerability and expedite its commitment. When conditions dictate its use, the reserve is committed without hesitation. The decision to commit

the entire reserve or a portion of the reserve will depend upon the situation. The reserve may be committed in part. With the compression of time and distance factors inherent in the mobility of mechanized and armored divisions, combined arms teams of the reserve can be assigned specific short-term missions and the reserve quickly reconstituted. Displacement of fire support means is executed in a manner designed to maintain continuous fire capabilities throughout the attack.

g. The division commander keeps himself intimately informed of the progress of the attack, the situation of his units, and the enemy reaction. He anticipates changes in the situation and is prepared to alter the organization for combat, maneuver his forces, reallocate and shift fires, or use his reserve. Decentralization and mission-type orders are normal. During the attack the division commander moves where he can best control and influence his forces. His organic aircraft will increase the scope and rapidity of his movement.

h. During continuous day and night operations, leading elements are rotated to provide time for rest and maintenance. This rotation may be accomplished by changing the division organization for combat and by SOP within brigades.

126. Continuation of the Attack

a. Upon attainment or destruction of objectives, all means are used to continue the attack without delay. Maximum use of supporting fire is made during this critical period. Minimum forces retain control of objectives, if required. Ground mobile and/or airmobile units maintain contact with the enemy, keep him off balance, and obtain information.

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

127. Discontinuance of the Attack

a. Contingencies may halt the attack. 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 division.

b. The commander may have freedom of choice in discontinuing the attack. In this event assembly areas are planned to aid

defense, to minimize vulnerability to attack, and to facilitate renewal of the attack.

c. Actions taken by the division 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) Establishing contact with adjacent units.
- (5) Accomplishing reorganization and supply concurrently with the above.

Section III. PLANNING THE ATTACK

128. Planning Sequence

The planning sequence commences with the receipt of a mission. Based upon information available to him from his staff and from higher, lower, and adjacent units, the commander analyzes the mission and prepares and issues his planning guidance. Then, following the preparation of staff estimates and the presentation of staff recommendations, he completes his estimate of the situation and arrives at his decision. The commander's decision and his concept of operation are the basis for the operation plan. This sequence may cover an extended period of time or may be accomplished in minutes. It may include formal staff conferences and written estimates, but will normally be accomplished by a quick, informal discussion, mental estimates, and the commander's oral issuance of his decision and his concept of operation.

129. Mission

The mission is normally assigned by higher headquarters but may, in independent operations, be developed by the division commander. The mission will frequently be general in nature, this requiring careful analysis to determine the specific tasks to be accomplished. When the mission is not clearly understood, clarification must be requested from the issuing headquarters.

130. Planning Guidance

Planning guidance assists the staff in preparing or revising staff estimates. It may include the commander's analysis of the mission, any factors and aspects of the situation the commander considers important or unusual, including the use of nuclear and

chemical weapons, and any courses of action he may wish developed. Guidance in the employment of nuclear weapons may include—

- a.* The proportion of nuclear weapons to be retained in reserve.
- b.* The type targets to be engaged and the results desired.
- c.* Troop safety.
- d.* Restrictions on the use of nuclear weapons.
- e.* The authority to fire.

131. Estimate of the Situation

The estimate of the situation is the process by which the commander arrives at his decision. He analyzes various courses of action, noting the advantages, disadvantages, risks involved, and operational requirements of each. He mentally war games the situation, compares the courses of action, weighs the advantages and disadvantages of each, and reaches a decision. Frequently, this will be an automatic process, performed in a few minutes after a staff briefing. Detailed information on the estimate process is contained in FM 101-5.

132. Concept of Operation

The commander's concept of operation is developed during the analysis and comparison of courses of action. This concept is presented to the staff at the time of announcement of his decision in sufficient detail to permit issuance of oral orders or when time permits, preparation of written orders. These latter will be extremely infrequent; normally mechanized and armored divisions will operate entirely on oral orders. The concept presents the commander's visualization of the attack to include as appropriate:

- a.* Objective of the attack.
- b.* Development and phasing of the attack.
- c.* General organization for combat.
- d.* Use of fire support, including the firing of a preparation, and the results expected from such fires.
- e.* General control measures to be used.
- f.* Alternate plans for foreseeable contingencies.

133. Development of Implementing Plans

Based upon the commander's decision and concept of operation, the operation plan and supporting plans are prepared for his approval.

134. Phasing

a. The enemy situation, the terrain, requirements for major reorganization of the division during the attack or the friendly situation may necessitate phasing the operation to the final objective.

b. Phasing of an operation is based on time (e.g. preparatory fire phase), distance (e.g. intermediate objective or phase line), terrain (e.g. crossing of obstacles), or on the occurrence of a particular event (e.g. commitment of enemy reserves).

135. Organization for Combat

The organization for combat must be capable of being rapidly altered to meet adjustments or changes in the plan of attack (pars. 119 and 120).

136. Fire Planning

a. *General.* Planned fires include preparatory fires, counter-mortar fires, interdictory and harassing fires, fires in support of the attack, and defensive fires to repulse counterattacks. All nuclear and nonnuclear fires are integrated. The nonnuclear fires, including chemical, attack targets escaping damage from nuclear fires or on which nuclear fires cannot be used, block reinforcement, and serve as an economy of force measure in areas not attacked by ground forces or nuclear fires. Normal fires are maintained prior to the preparation to preserve secrecy.

b. *Nonnuclear Preparation.*

(1) *General.* Considerations in determining whether or not a nonnuclear preparation should be fired include fire support means available, availability of target information, requirements for secrecy, and firing of a nuclear preparation and its expected results.

(2) *Effect of nuclear preparation.* Even though a nuclear preparation is fired, troop safety or other limitations may result in some areas being unaffected. This, together with the attendant loss of surprise, will probably dictate the firing of a nonnuclear preparation to supplement nuclear fires.

c. *Nuclear Preparation.*

(1) *General.* Considerations involved in the determination as to whether or not a nuclear preparation is fired include policy of higher headquarters on the use of nuclear weapons, means available, existence of suitable targets, effect upon surprise, requirements for troop safety, rela-

tive combat power of opposing forces, and creation of obstacles.

- (2) *Relative strength of opposing forces.* The enemy's strength may be so great compared with that of the friendly force as to jeopardize success. The nuclear preparation may bring this ratio into more favorable balance.
- (3) *Obstacles.* The creation of obstacles by nuclear weapons and the effect of these obstacles on maneuver must be considered. The difficulty of traversing physical obstacles is considerably greater at night. Large, thick dust clouds which reduce visibility and impair control may occur from nuclear bursts. Extensive fires caused by nuclear bursts may restrict maneuver; smoke produced by mass fires may reduce visibility.
- (4) *Alteration of terrain features.* This consideration is significant in night combat when terrain features are being employed as control measures.

137. Coordination and Control

a. General. Unity of effort is achieved in the attack by using appropriate control measures. Care must be taken to avoid over-control or restricting the ability of subordinate commands to react to unforeseen situations.

b. Orders. Orders must be clear and concise. They must be issued promptly to permit complete understanding and dissemination. Subordinate commanders must be fully aware of the division commander's concept and the part their units play in the accomplishment of the division's mission. Issuance of warning and fragmentary orders permit subordinate commanders time for their planning and preparation.

c. Objectives.

- (1) Subordinate units of the division are normally assigned final objectives. Intermediate objectives are designated only when essential to the accomplishment of the division's mission. The assignment of an objective may require that the unit seize that objective and maintain control over it until relieved. The commander's desires in this respect should be specified in orders.
- (2) Objectives may be used to provide unity of effort, to phase the attack, or to facilitate a change in direction.
- (3) An objective should be easily identified. Its destruction or capture must be possible within the time and space

limitations imposed and must be within the capability of the force to which it is assigned.

d. Line of Departure (LD).

- (1) When units are in contact, their present positions may be designated as the LD. For units not in contact, a LD may be prescribed for their employment based upon terrain or, as in a passage of lines, the anticipated friendly dispositions.
- (2) A LD, if used, should be generally perpendicular to the direction of advance, easily recognizable on the ground, and as close to the enemy as possible. For unarmored units it should be protected from small-arms and other flat-trajectory fire. It should be under control of friendly forces. If nuclear weapons are used, its location should conform to the commander's guidance on troop safety.
- (3) The dispersion of the division laterally and in depth may make it desirable to assign separate LD's and times of attack to the various attacking units.

e. Time of Attack.

- (1) In selecting the time of attack, consideration is given to requirements imposed by higher headquarters; the time required for subordinate units to reconnoiter, prepare and coordinate plans, issue orders, organize the attacking units, and move to the attack; and the possibility of taking advantage of an enemy weakness before he can rectify it.
- (2) Stereotyped times of attack are avoided to enhance surprise and to prevent prior preparation by the enemy. Attacks of subordinate units may be echeloned in time to mislead the enemy and to allow the shifting of supporting fires to the successive attacks. Simultaneous attacks reduce the enemy's ability to concentrate his fires.
- (3) Nuclear fires affect the time of attack. Time may be required for tactical damage assessment and the issuance of necessary modifying orders. Normally, it is desirable that the attack follow the nuclear preparation as soon as it has been determined that the nuclear detonation has occurred. Under some conditions, however, dust and smoke may delay the attack until adequate visibility exists. A habitual relationship of time of attack to the time of nuclear preparation must be avoided.
- (4) Units, particularly those with mission type orders, continuing the attack or entering the exploitation may be

assigned a general rather than an exact time of attack, e. g., "at once," "without delay," or "continue."

f. Zone of Action.

- (1) A principal reason for using a zone of action is to insure close coordination and cooperation between adjacent units. At times the entire corps zone may be assigned to a division.
- (2) The zone of action should provide adequate maneuver space for subordinate units and be commensurate with their capabilities. Where possible, it should wholly include key terrain features and avenues of approach thereto. It should extend as a minimum beyond the final objective to the depth necessary for the coordination of fire support for the seizure or destruction of the objective.
- (3) The zone of action is defined by the establishment of boundaries which must be easily recognizable on the ground. Units may move temporarily into adjacent zones after coordination with the commanders concerned and notification of the next higher commander. Such movement must be controlled to avoid interference with the adjacent units and unwarranted massing of troops. Similarly, boundaries do not restrict the emplacement and movement of artillery and other supporting weapons provided coordination is effected.
- (4) Boundaries simplify coordination of fires including nuclear fires between two adjacent units or delimit responsibility of converging forces in a restricted area. When boundaries are used for the purpose of requiring a unit to clear the area of enemy forces, the operation order must clearly specify this purpose. If clearance is required, it may be necessary for a following unit to be assigned this task.
- (5) See paragraphs 58 through 62 for fire coordination aspects of boundaries.

g. Axis of Advance. This is the principal direction of movement assigned for the purpose of control by higher headquarters. Normally it follows well-defined terrain features, such as a series of roads, ridge lines, or valleys, extending to the objective area. By the axis(es) of advance, the commander indicates to his subordinate commanders the general scheme of maneuver which he desires in the movement of subordinate elements to the objective area. A commander assigned an axis of advance may maneuver

his troops and supporting fires freely to either side of his assigned axis to bypass obstacles, or to engage or bypass enemy units providing such maneuver does not interfere with adjacent units and the unit remains oriented on its objective. When a deviation is required under the circumstances noted above, the subordinate commander must inform higher headquarters of the deviation.

h. Direction of Attack. A direction of attack indicates the direction in which the commander issuing the order wants a subordinate commander to make his main attack. The direction of attack is a very restrictive control measure and should be used only when necessary. The direction of attack is used primarily in counterattacks or to insure that a supporting attack makes the maximum contribution to the main attack.

i. Axis of Advance. When an axis of advance or direction of attack is used, the commander who issues the order must insure that his concept of its use is clear to his subordinates.

j. Phase Lines. Phase lines are established as required to indicate progress of units, to coordinate the attack, and to assist in executing contingency plans. Attacking units report when they cross a phase line but do not stop unless ordered to do so.

k. Checkpoints. Checkpoints are useful for orientation, for requesting supporting fires, and for making situation reports in the clear. Checkpoints may be used to supplement phase lines or in lieu of phase lines.

l. Assembly Area.

- (1) An assembly area is an area in which a command assembles preparatory to further action. Division indicates the general location of brigade assembly areas. Within these areas, brigade indicates specific locations for its subordinate units. In the assembly area orders are issued, maintenance and supply are accomplished, and the organization for combat is completed.
- (2) The location of the assembly area is relative to the mobility of the force. A tank, motorized, mechanized, or air-mobile unit can attack from an assembly area farther rearward than a unit on foot. To reduce nuclear vulnerability, multiple, dispersed assembly areas are used. Assembly areas near units in contact or large troop concentrations are avoided.
- (3) Assembly areas may be so far rearward as to require refueling prior to attacking. Areas are designated along the routes where units halt for refueling. Final coordination may be conducted concurrently with the refueling

operation. Units then proceed direct to the line of departure or attack positions.

- (4) Assembly areas should be concealed from air and ground observation and be of such size as to avoid presentation of lucrative targets to artillery, air, or nuclear attack. Suitable routes forward should be available. Ground observation and natural protection from tank attack are desirable. When possible, assembly areas should be beyond the effective range of the bulk of enemy artillery.
- (5) Assembly areas may be designated for dispersal of units following the attack.

m. Attack Position. The division does not use an attack position nor does it assign attack positions to its subordinate elements except in the case of attack by infiltration. Although commanders of company sized units normally select or designate their own attack positions, attacking units such as a battalion may assign attack positions to subordinate units. This procedure facilitates deployment before crossing the line of departure. A unit in an attack position may present a vulnerable target to nuclear weapons. Consequently, an attack position is occupied only if necessary, and then for the minimum essential time: normally only that time required to complete deployment.

138. Administrative Support

a. The plan of attack must be capable of being administratively supported. The combat power available to the division may enable it to seize or destroy objectives which exceed its organic administrative support capability. In such cases, assistance from higher headquarters must be obtained.

b. During the attack, administrative support installations and units are located to sustain the attacking units. Centralized control of logistical support is desirable. However, control may be decentralized or logistical elements attached to supported units when required.

Section IV. ADVANCE TO CONTACT

139. General

a. The advance to contact is the 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.

b. The advance is conducted on a broad front using the techniques of the tactical column and approach march (fig. 7).

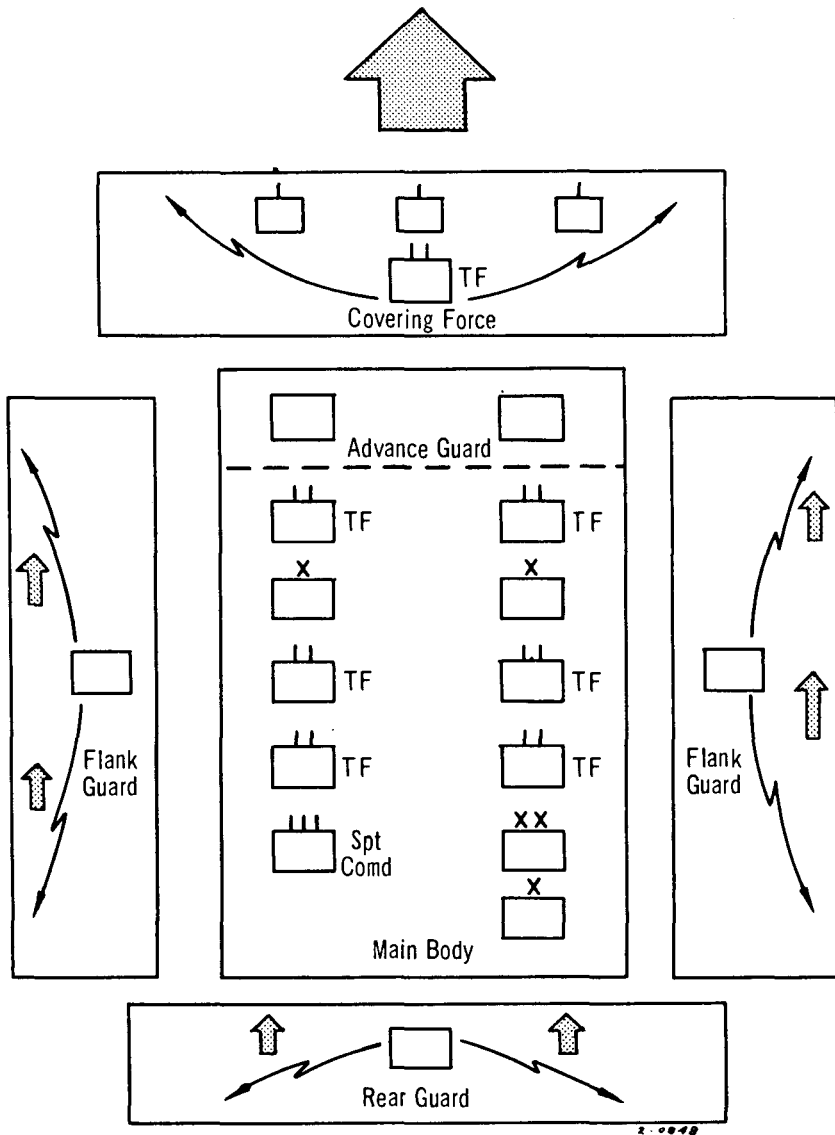


Figure 7. An organization for advance to contact (multiple columns).

It is characterized by decentralized control and piecemeal commitment of forces. The advance to contact terminates when determined enemy resistance requires the deployment and coordinated effort of the division.

140. 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 guards, flank and rear security forces, and the main body. These groupings provide for—

- (1) Rapid and uninterrupted advance of the division.
- (2) Adequate all-round security and the early development of the situation.
- (3) Retention of the bulk of the combat power uncommitted during movement for rapid employment upon contact with enemy forces.

c. The basic formations are the column of brigades, three brigades abreast, two brigades abreast, and brigades in echelon (par. 117*b*). Normally the advance is conducted in multiple columns. Subordinate combat units adopt formations or variations of these formations which facilitate the accomplishment of 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 weapons increase the speed of advance because in conjunction with relatively small forces they can eliminate enemy resistance which might otherwise require the deployment of sizable elements. Nuclear fires to include use of fallout, can provide security by blocking enemy avenues of approach or by restricting the enemy access to terrain essential to the advance. Toxic chemicals in highly persistent concentrations can be used in a similar manner. The vagueness of the enemy situation normally requires that the bulk of nuclear fires be held on an oncall basis.

f. Tactical Air Force aircraft in day and night, visual, photo, and electronic reconnaissance missions augment the efforts of Army aircraft to detect enemy units or movement in to the area and to provide information on the nature of 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. Airmobile forces greatly increase security. They can seize key terrain essential to the uninterrupted advance of the com-

mand. Establishment of airmobile elements as a reserve increases responsiveness of the forces to varying situations.

141. Planning the Advance

The commander follows the procedures in paragraphs 128 through 138 to determine the best organization and distribution of force to be used initially. Primary consideration is directed toward the anticipated action during the advance and the subsequent employment of forces. During the advance the commander continually analyzes the situation based on the latest developments. He shifts forces and alters his plan of advance as required. Upon gaining contact, he again employs the procedures in paragraphs 128 through 138.

142. Organization for the Advance

a. General. Organization for the advance depends upon the mission, available intelligence, probable order of commitment of units, and relative mobility of units (fig. 7).

- (1) The position of infantry, tank, artillery, and engineer units throughout the formation is as dictated by the situation, particularly the anticipated employment of the units.
- (2) Administrative support units and installations are located to provide the required support but not to interfere with tactical movements. Normally, these units follow combat echelons.

b. The Covering Force.

- (1) Missions assigned the covering force are broad in nature. They may include development of the situation, destruction of enemy resistance, seizure of key terrain, or containment of enemy forces.
- (2) The covering force is tailored to accomplish its mission. It normally operates at considerable distances in front of the main body. A highly mobile force such as the armored cavalry squadron or a battalion task force provides the basic element of the covering force. It is appropriately reinforced with aviation, artillery, and engineers. The covering force is supported by tactical Air Force aircraft for long-range reconnaissance and offensive strikes and by Army aircraft for short-range reconnaissance and control. Nuclear fires support the covering force as required. Airmobile forces make excellent reserves for the covering force.

- (3) The covering force normally operates under division control. However, when the division is advancing on multiple routes, terrain and distance may require subordinate commanders to command their own covering forces.
- (4) When the division is marching as part of a large force, the covering force may be furnished and controlled by the higher headquarters. The division advance guard is then the contact force between the division and the covering forces.
- (5) Operations of the division acting as a covering force are covered in paragraphs 158 through 160.

c. The Advance Guard. The advance guard is tailored for the mission and may include armored cavalry, tank, mechanized infantry, airmobile infantry, or motorized infantry units, under one commander, in the proper proportion required to expedite the movement of the main body following it. Necessary combat support such as engineer and artillery is integrated into the advance guard.

d. Flank and Rear Security Forces.

- (1) Flank and rear security forces protect the main body from ground observation and surprise attack. These forces must be strong enough to defeat minor enemy forces or to delay strong enemy attacks until the main body can deploy.
- (2) The flank guard travels on routes paralleling that of the main body or moves by bounds to occupy key positions. The rear guard follows the main body.
- (3) The strength and composition of the rear and flank guards are similar to the advance guard. Airmobile forces may be used as flank or rear guards. Elements of the armored cavalry squadron are well suited to flank and rear guard missions. Should the flanks or rear of the division be secured by the presence of adjacent or following units, security forces can be appropriately reduced.
- (4) Flank and rear security forces operate either under control of the division or of elements of the main body marching in proximity to them.

e. The Main Body.

- (1) The main body comprises the bulk of the division's combat power. It is immediately available to attack major enemy forces or the division objective.

- (2) Units of the main body are organized for combat and are positioned in the advancing columns to permit maximum versatility for employment during the advance or after contact with the main enemy force has been made.

143. Command

a. A division command element marches well forward in the main body.

b. The advance is carefully planned and the commander's concept of the advance and anticipated subsequent action is known by all subordinate commanders. Minimum tactical control measures are used, consisting principally of axes of advance, phase lines, checkpoints, march objectives, and fire coordination measures, as required. Execution of the advance is largely based upon aggressive action by task force commanders acting on their initiative in accordance with the commander's concept. As the situation progresses and the advance develops into an attack, the division commander resumes more centralized control of the division.

c. Maximum, rapid dissemination of information obtained by the covering force is essential. When signal communication security is required, this is accomplished by transmission of information from the covering force to the division with other stations maintaining listening silence.

144. Security

Security is obtained by the use of the security and covering forces discussed in paragraph 142. Security is enhanced by rapid, aggressive movement. The use of dispersed formations provides protection against nuclear attack but may increase the difficulty of maintaining adequate mutual support between the various tactical groupings. This difficulty may be overcome in part by the use of nuclear fires and reconnaissance.

145. Administrative Support

a. The advance to contact is characterized by the high rate of consumption of class III supplies, increased vehicular maintenance, low rates of ammunition expenditure, and relatively low casualty rates. It is complicated by the dispersed nature of the operation, the speed of forward movement, and variables injected by the enemy and terrain. The fast-moving nature of the operation and the high class III consumption require careful planning of administrative support. Administrative support must be provided to enable the command to move without delay. Mobile distributing points and Army aircraft are useful to accomplish this. Aug-

mentation of organic administrative support means by higher headquarters may be required.

b. Of particular significance is the need for maintenance and traffic control on routes forward. This may conflict with the requirements for engineers and military police with other combat units and require that additional support be furnished by higher headquarters.

146. Conduct of the Advance

The advance to contact is marked by rapid, aggressive action. Local situations are rapidly developed by the covering force. Within its capability it destroys enemy forces which will interfere with the movement of the main body and contains those it cannot destroy. Nuclear weapons are used against targets of opportunity to destroy enemy forces, to prevent their movement against the division, or to deny key terrain to the enemy. The main body commits elements to reduce pockets of resistance bypassed by the covering force or, when required by the mission, leaves them for engagement by following units. The division commander is apprised of the progress of the various combat units and their anticipated actions. He commits forces as they become available to maintain the momentum of the advance. All efforts are directed toward keeping the enemy off balance and preventing small elements from establishing an effective defense or unified action against the division.

147. Meeting Engagements

a. A meeting engagement is the combat action which 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 has been developed and subsequent planned and coordinated operations are undertaken.

b. Meeting engagements may occur frequently at lower echelons of command in both offensive and defensive situations.

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

148. Conduct of Action, Meeting Engagements

a. The basic principle in the conduct of a meeting engagement is that of seizing and retaining of the initiative. By retaining the initiative a commander can subsequently adopt that course of ac-

tion which will contribute most effectively to the accomplishment of his mission.

b. The following actions contribute to the commander's ability to retain the initiative:

- (1) Rapid estimate of the situation and issuance of fragmentary orders, orally or by radio.
- (2) Commitment of units from march column.
- (3) Organization of the advance guard with mobile forces capable of long range reconnaissance by fire, rapid deployment, and speed in the attack.
- (4) Interspersion of artillery throughout the column to insure availability of supporting fires in the early stages of the action.

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

d. Commanders at each echelon furnish adjacent and higher headquarters with rapid and continuous information concerning the situation and their general plan of action. Brigade and division commanders must be continuously aware of the disposition of their commands and be prepared to react rapidly to any situation.

Section V. THE PENETRATION

149. General

a. In the penetration the attack passes through the enemy's principal defensive position, ruptures it completely, and neutralizes or destroys objectives in order to break up the continuity of his defense and facilitate the exploitation. The divided enemy forces are then destroyed in detail, and mobile forces exploit through his vital rear areas (fig. 8).

b. The penetration consists of three phases: rupture of the enemy's defensive position, widening of the gap, and overrunning or seizure of objectives which destroy the continuity of the enemy's defense. These phases are followed by the exploitation. The phases of the penetration and the subsequent exploitation blend into a continuous operation, frequently overlapping one another. When overwhelming fire support is applied and the division is sufficiently mobile, the phases may be so condensed in time as not to be recognizable during execution.

c. The division may penetrate an enemy position and conduct the exploitation, or it may rupture a position and be passed through by an exploiting force. In conjunction with other forms of

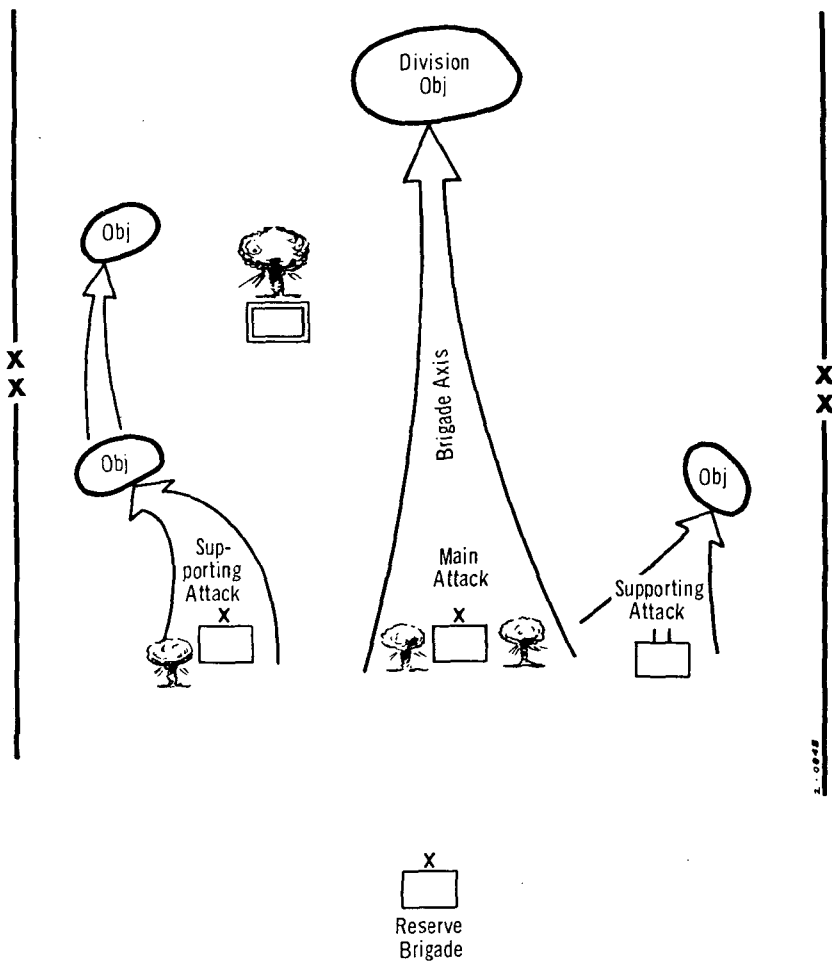


Figure 8. Division conducting a penetration.

maneuver, the division may assign subordinate elements tasks requiring penetration, e.g., a supporting attack during an envelopment by the division.

150. Basic Considerations

a. A penetration is demanded when enemy flanks are unassailable, or when time does not permit another form of maneuver. A penetration is favored or permitted when the enemy is overextended, when weak spots are detected in his position, when terrain and observation are favorable, or when strong fire support, especially nuclear fires, is available.

b. The penetration of a well-organized position requires a preponderance of combat power and continued momentum of the attack. The attack must move rapidly to destroy the continuity of the defense. If the attack is slowed or delayed, the enemy is given time to react. If the rupture is not made sharply and the seizure of the objectives accomplished quickly, the attack degenerates into a pushing type action. This results in high casualties and affords the enemy an opportunity to fall back on his routes of communications, avoiding destruction.

c. Selection of the location of the penetration depends upon—

- (1) *Terrain*. Terrain must support the mobility of the division. This requires evaluation of soil trafficability, nature and extent of obstacles, and the road net. Fields of fire and observation for the control of fires are necessary.
- (2) *Strength and depth of the enemy position*.
- (3) *Maneuver room*. The attacking force should not be unduly restricted by boundaries or lateral obstacles.
- (4) *Distance to the objective*. A short direct route to the division objective is desirable.
- (5) *Surprise*. If surprise can be obtained by penetrating in a particular area, thus obtaining more rapid and decisive results, the considerations above are less important.
- (6) *Plans of the higher echelon*. The location selected must permit conformance with the plan of the higher headquarters.

d. The main attack is on a relatively narrow front and is directed toward the division objective. The supporting attacks widen the gap or prevent the enemy from disengaging. Reserves are held ready to reinforce success or to exploit. The distance to the division objective may require that the reserve pass through the main attack forces after rupture of the position to seize or destroy the objective.

e. The width and depth of the penetration depend upon the depth of the enemy position and the combat power available to the division. The wider the penetration, the more difficult it is for the enemy to close it but the greater the resources required to accomplish it. The deeper it is, the more effective is the "rolling up" action against the hostile flanks and the more difficult for the enemy to reestablish his defense by withdrawal to a new location.

f. The division commander will not normally assign intermediate objectives to the main attack. He may assign objectives to supporting attacks to insure adequate width in the area of rupture and to protect the flanks. Subordinate commanders may designate close-in objectives to coordinate their attacks through

the defensive position and to insure that their units generate maximum combat power in the desired areas.

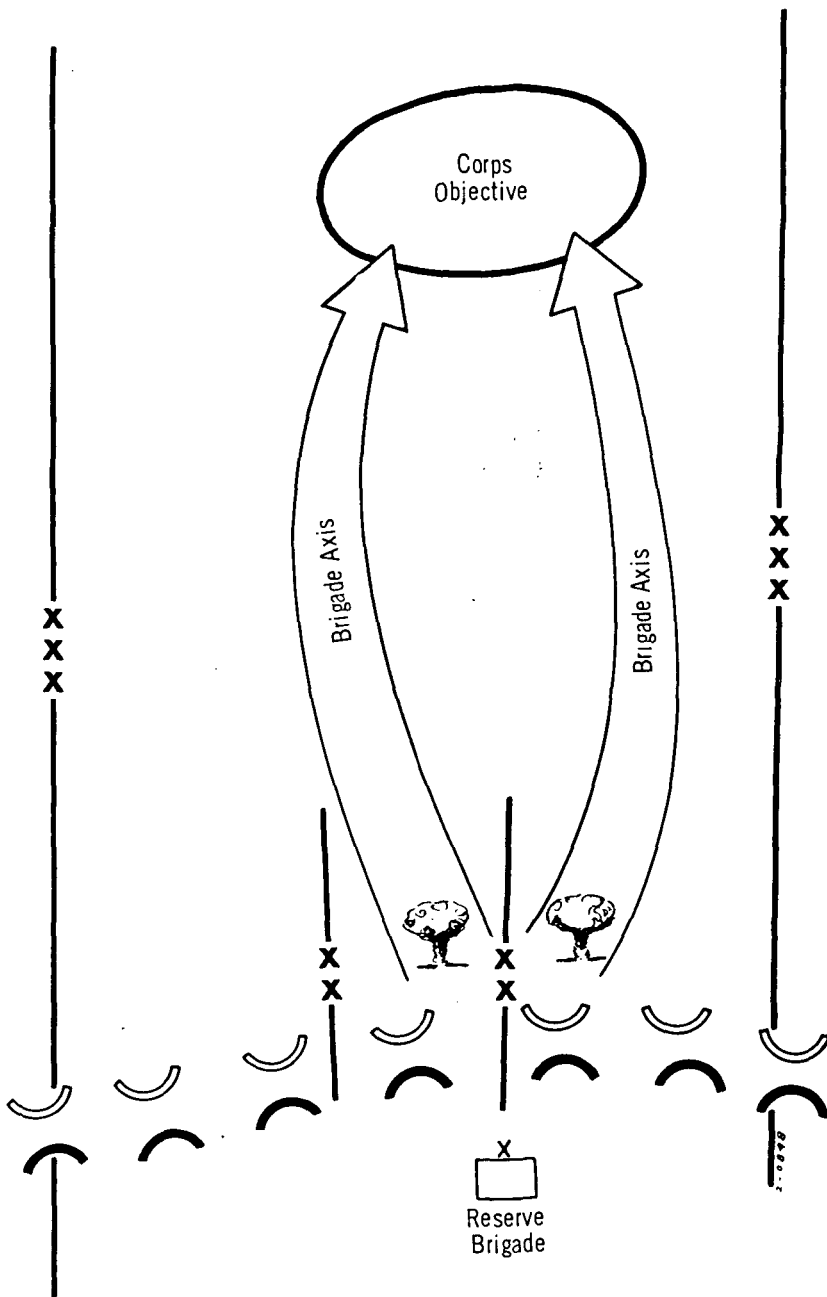


Figure 9. Division making the corps penetration.

g. When the division is attacking against a weak enemy or attempting to isolate an extremely strong defensive position, it may execute a multiple penetration. This is an attack consisting of two or more penetrations against weak localities. Strong enemy defenses are contained by supporting attacks. When the penetrations reach a suitable depth, the bypassed forces are reduced and the attacks combined into a single attack.

h. The division may be given a mission of making the corps penetration (fig. 9). Other divisions may follow to roll back the enemy flanks and complete the rupture of enemy positions all along the corps front.

i. When other attacking units of the corps have been slowed in progress, the division may be committed to attack through them to hasten the penetration. It is essential that close liaison be maintained between the units in contact and the division being used to hasten the penetration.

151. Fire Support

a. The penetration is normally preceded by a preparation which demoralizes and weakens the defender prior to the assault, limits his ability to react against the attack, and covers the movement of attacking units. Suitable targets include defensive positions, fire support means, command and control installations, and reserves. Smoke reduces the effectiveness of enemy observation.

b. Nuclear fires must be carefully planned and integrated with the scheme of maneuver since their effects may create obstacles to the penetration. It may be necessary to use these weapons on the flanks of, rather than in the area of, the main attack. They can be used against reserves or to widen the gap, reducing the requirement for troops in this role.

c. Toxic chemicals in nonpersistent concentrations are a rapid, effective method of expediting rupture of the position. They increase the friendly combat superiority in the area without producing obstacles.

d. Fires are planned to neutralize enemy reserves, to prevent movement into or out of the area of operations, and to destroy any targets which seriously threaten the accomplishment of the mission.

e. Enemy forces isolated during the rupture of the position may be neutralized by fire. Nuclear and chemical fires are suited to this task.

152. Conduct of the Penetration

a. Following the preparation, assault units attack through the enemy's defensive positions.

b. Supporting attacks by infiltration may neutralize enemy fire support means and command facilities. They may also seize terrain which blocks the movement of reserves against the main attack or which promotes its continuous movement.

c. As the attack progresses, units of the supporting attack secure the flanks of the main attack or widen the gap. The reserve is used to exploit success or to assist the main attack in the accomplishment of the division mission. Enemy counterattacks are rapidly engaged using the reserve or supporting fires. Nuclear weapons are suited to the destruction of counterattacks. However, troop safety considerations require judicious application of nuclear fires in these cases.

d. As the attack breaks out of the area of enemy defenses, it increases its speed and momentum to overrun, destroy, or seize the objective. If the objective is at a depth beyond its capability or if its strength has been depleted, the main attack force is reinforced or passed through by the reserve which continues to or beyond the objective. A suitable reserve is reconstituted as soon as practicable from forces available, such as the original main attack force.

e. Upon attaining, destroying, or overrunning the objective, the division exploits to destroy command installations, logistical support installations, fire support means, and enemy units attempting to escape. Security forces are promptly dispatched to give warning of and delay enemy countermeasures.

f. Enemy forces which have been divided by the penetration and contained by action of the supporting attacks are rapidly destroyed or are destroyed by following units. Units engaging these forces and other elements of the division displace rapidly, and the division continues the exploitation or prepares to execute other missions.

g. Throughout the penetration all efforts, combat and administrative, are devoted to maintaining the violence and momentum of the attack.

Section VI. THE ENVELOPMENT

153. General

a. In the envelopment, the main or enveloping attack passes around or over the enemy's principal defensive positions to seize objectives which cut his escape routes and subject him to destruction in position from the flank or rear. Supporting attacks hold the enemy in position during the advance of the enveloping attack. The envelopment forces the enemy to fight in two or more directions simultaneously to meet the converging attacks (fig. 10).

b. The division may be the holding force or conduct the en-

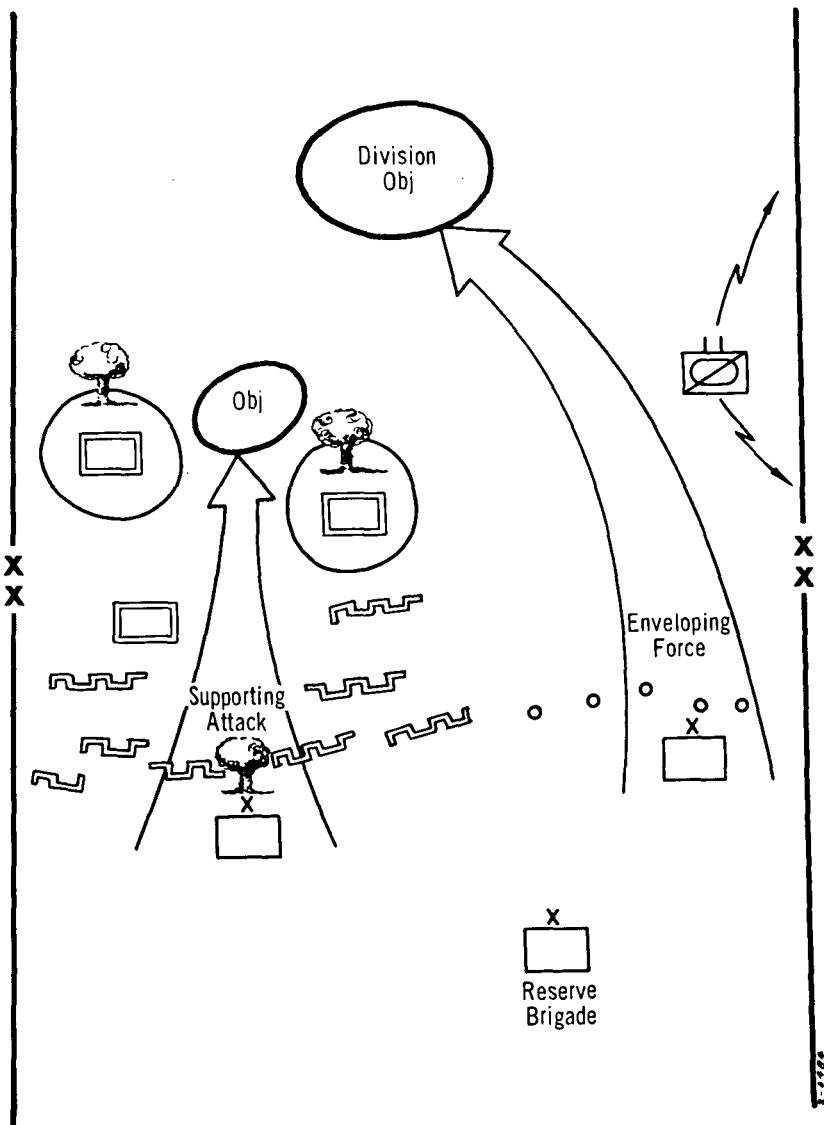


Figure 10. Division conducting an envelopment.

velopment (fig. 11). The division may use the envelopment for its main attack or may assign missions to subordinate units which require them to envelop.

154. Basic Considerations

a. The envelopment by ground attack requires that the enemy have an assailable flank. An assailable flank is one which can be circumvented without fighting a major engagement.

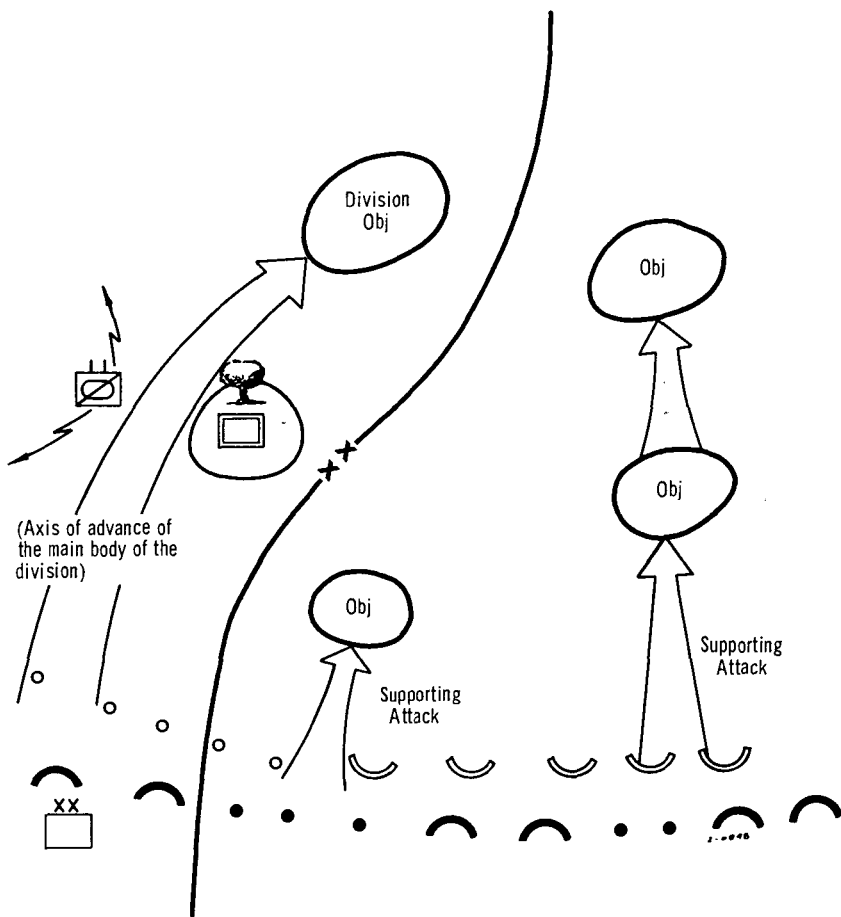


Figure 11. Division making an envelopment for a higher echelon.

b. An envelopment by air requires that adequate suppressive fires be available, or that the enemy's dispositions or capabilities will not interfere materially with the flights of large numbers of aircraft. Ground patrols and infiltrating forces may be used to reconnoiter and secure the flight routes to be used. Direct airborne assault landings against occupied objectives normally are not deliberately attempted. Plans for the use of airborne or airlanded forces must include provision for link-up with ground attack forces.

c. The success of the envelopment depends largely upon surprise, mobility, and the ability of supporting attacks and deception to hold the enemy in place. Surprise is gained by secrecy, deception, unexpected maneuver, and speed. Mobility is increased by the use

of armored cavalry, airmobile, tank, mechanized, and motorized units and the skillful use of terrain.

d. Rapid movement of the enveloping force to its objective is essential to prevent the enemy's movement of reserves to counter it or to occupy previously prepared positions. Vigorous supporting attacks prevent the enemy from reconstituting reserves from other portions of his front.

e. The commander executing an envelopment must be alert that the weakly defended area through which he is attacking is not a trap. Analysis of the terrain and the enemy's capabilities contribute to the security of the command. Mobile forces and nuclear weapons in reserve, continual reconnaissance, and the careful selection of objectives for supporting attack forces enhance the security of the main attack.

f. Envelopments may be close or wide based upon the initial distances between attacking elements. In a close envelopment, fire support of the supporting attack force as well as other fire support elements of the division support the enveloping force to its objective. In a wide envelopment, the enveloping force moves at a greater distance from the supporting attack, making fire support more difficult. In this situation artillery should be attached to the enveloping force.

g. Minimum control measures are assigned to the enveloping force. Normally the axis of advance is used although initially the use of a zone of action may simplify control and coordination with an adjacent supporting attack.

h. In the envelopment the division's organization for combat takes into consideration the mobility, firepower, and security needed by the enveloping force. Normally a brigade, mobile and heavy in tanks, will be the enveloping force.

155. Conduct of the Envelopment

a. The enveloping force moves rapidly into the attack, while diversionary actions mask the noise and direction of its movement.

b. The attack may be launched simultaneously across the front or the times of the supporting and enveloping attack may be staggered; those of the supporting attacks normally being earlier to increase deception.

c. Because of the requirement for secrecy, limited targets, and inability of local forces to impede the attack in the area of the enveloping force, a preparation might not be fired in support of the enveloping force. If fired, it is violent but of short duration. The supporting attacks may be preceded by a preparation.

d. The enveloping force moves rapidly and directly to its objective, bypassing enemy forces which might delay it. These forces are reduced by fires or by following units. Security forces protect its exposed flanks.

e. Supporting attacks and fires hold the enemy in position and prevent his use of reserves against the enveloping force. Infiltrated forces may block the movement of enemy reserves, attack his fire support and command control means, or seize terrain which assists the enveloping force.

f. If the enemy attempts a frontal attack, the supporting attack blocks or delays it while the enveloping force continues the envelopment.

g. If the enemy attempts to envelop the enveloping force or extend his flank beyond it, the division commander may elect to penetrate the enemy's overextended front. This takes advantage of the weakness offered by the enemy in reacting against the envelopment. An attempt to outflank the enemy's extension may lead to overextension of the division or a dangerous separation of the enveloping force from the supporting attack.

h. The division commander is alert to detect opportunities to exploit success with his reserve. These opportunities may be either in the area of the enveloping or supporting attacks. When the reserve is committed, another is constituted as soon as practicable.

156. Double Envelopment

a. A double envelopment is executed by two enveloping forces and a supporting attack force. It requires a great preponderance of combat power and may be difficult to control. Nuclear weapons contribute greatly to the combat power required. The force executing a double envelopment must be capable of deploying on a broad front against an enemy who is on a narrower front or who has limited maneuver capability.

b. The amount of combat power required to provide for two enveloping forces, a supporting attack force, and the reserve may prevent the division from executing this type maneuver unless it has strong nuclear support or is opposed by a substantially inferior enemy. The supporting attack frequently will necessarily be frontal in nature. Nuclear fires may be used with a supporting attack to reduce the requirement for troops.

c. Dependent upon mutual support considerations, simultaneous envelopment by ground attack and airborne forces offset the

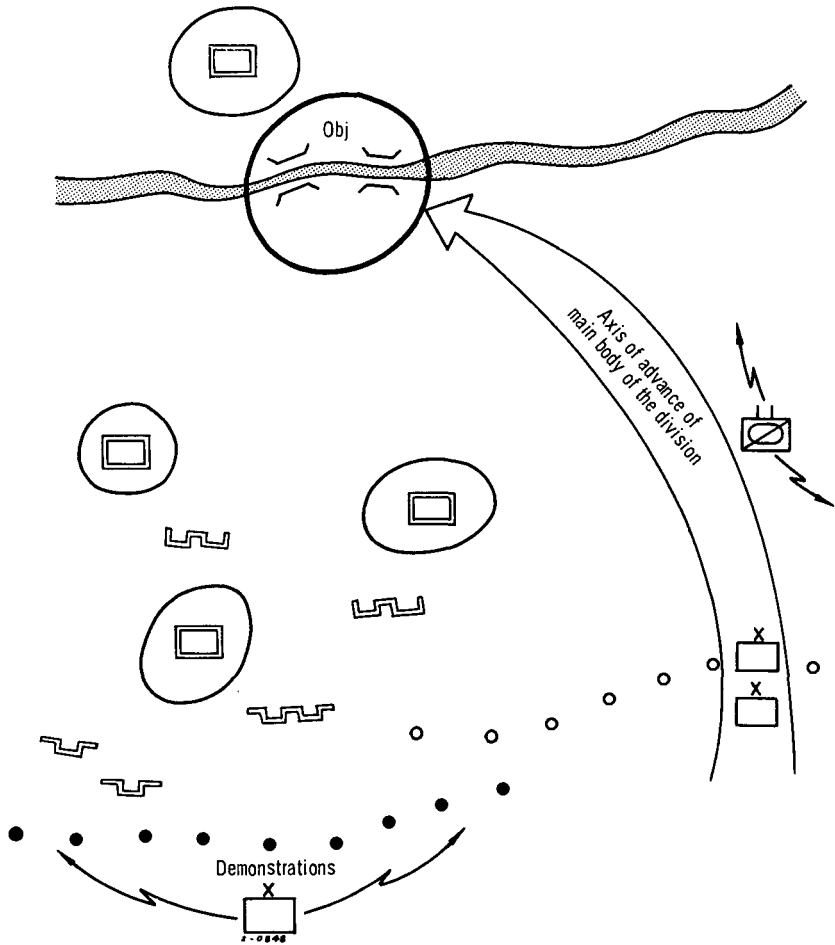


Figure 12. Division conducting a turning movement.

undesirable aspects of a double surface envelopment and may not require so great a preponderance of force.

d. An initial envelopment of one flank may create favorable conditions for passing to the double envelopment by committing the reserves around the other flank.

e. In order to control the double envelopment and still maintain

a reserve, one of the combat battalions, suitably tailored, may be used as a control headquarters in addition to the three brigades.

157. The Turning Movement

a. In the turning movement, a variation of the envelopment, the attacking force passes around or over the enemy's main force to seize objectives deep in his rear, forcing him to abandon his position or to divert major forces to meet the turning threat. The enemy is then destroyed on ground of the attacker's choosing. The turning force normally is out of supporting distance of any other ground attacking force (fig. 12).

b. The turning movement differs from other envelopments in that it is not directed at the destruction of the enemy position. It avoids attacking the flanks and rear of the enemy's main defensive position. It seizes vital areas deep in the hostile rear which prevent the escape, support, or reinforcement of the enemy's main force. It is used when an opportunity exists to seize vital areas in the enemy's rear before his main force can escape or be reinforced. When the enemy occupies a strong defensive position, the turning movement offers a means of causing him to abandon the position and to fight on ground more favorable to the attacker.

c. The division may be the turning force for a higher echelon. Under certain conditions the division may execute a turning movement within its own resources.

d. Under most conditions, infantry battalions will require motorization, mechanization, or airmobility when acting as part of a turning force. The cross attachment of tanks is desirable.

e. Sufficient combat power must be applied by a holding force against the enemy force to prevent its interference with the turning force. The application of this combat power may be in the form of a supporting attack or of a screening operation. Because the turning force and the holding force frequently operate beyond mutually supporting distance, each force must have sufficient combat power and mobility to avoid defeat in detail. The turning movement requires secrecy, mobility, and deception.

Section VII. THE DIVISION AS A COVERING FORCE

158. General

a. The division may be assigned a mission as a covering force for a larger force. Since mobility is essential, an armored or mechanized division is normally employed.

b. The purpose of the covering force is the early development of the situation, the provision of security for the larger force, and

the prevention of unnecessary delay of the main body. Covering force missions may be broad and may include attacks to destroy enemy resistance, seize and control key terrain, or contain large enemy units.

159. Control

Since the division will operate on a broad front, usually covering the entire zone of action of the larger forces, a well-prepared, coordinated operation plan is required. Measures by which the rate and direction of movement of the covering force are correlated with the remainder of the force are required. These measures may include successive march objectives, checkpoints and/or phase lines, boundaries between brigades, and radio, aircraft, and ground messenger communications.

160. Conduct of Covering Force Action

The division acting as a covering force operates at a considerable distance from the main force. Normally the division advances with three brigades abreast. Where terrain permits, tank heavy forces usually lead the advance. Engineers and artillery, to include nuclear fire support, are usually attached to brigades. A small, tank heavy reserve may be held at brigade level. Additional reserves may be provided by the division. Nuclear weapons are employed against targets of opportunity, to block enemy avenues of approach, and to deny the enemy use of key terrain. Covering force actions are characterized by speed and aggressiveness, by developing situations rapidly with strength, by unhesitating commitment of reserves to eliminate enemy resistance, and by keeping the enemy off balance. The division concentrates its attention against enemy forces which are of sufficient size to threaten the movement of the main force while bypassing and reporting minor resistance. Every action is directed toward insuring the uninterrupted movement of the main force.

Section VIII. INFILTRATION

161. General

a. Infiltration is a technique of movement used in conjunction with offensive operations. The division can attack by infiltration or use infiltration as a means of obtaining intelligence and of harassing the enemy. It is not necessarily restricted to small unit or dismounted action.

b. Because of the interspersed deployment of friendly and enemy units during infiltration, the nuclear vulnerability of both

is high and use of any but the smallest nuclear weapons is normally precluded.

c. Attack by infiltration may permit the destruction of enemy units and installations without recourse to nuclear fires and may curtail the enemy's use of nuclear fires because of the absence of remunerative targets.

162. Basic Considerations

a. An infiltration is a relatively long operation. Planning must be in detail and troops must be carefully briefed. The movement by stealth through enemy positions and the assembly of infiltrating groups prior to decisive action are slow. The use of airmobile units can increase the rate of movement considerably.

b. Infiltration is aided by the use of terrain which limits the enemy's observation and surveillance of the routes to be used. Woods, swamps, and broken ground are examples of the areas suited to infiltration. Within an area of infiltration, suitable routes for the movement to small groups are selected by the infiltrating unit. In contrast to other offensive action, avenues of approach in the traditional sense are not used. Frequently, the avoidance of the best avenues of approach increases the probability of success. Conditions of reduced visibility such as darkness, fog, and falling snow assist the undetected movement of infiltrating groups. Such conditions, however, cause an alert enemy to increase his surveillance.

c. A widely dispersed enemy force with gaps existing between his defensive positions invites infiltration. Infiltration against an alert enemy equipped with means of detecting movement, requires the careful use of deception and diversionary measures, electronic countermeasures, and passive security measures. Widespread enemy use of illumination deters infiltration unless the illumination can be neutralized.

d. Suitable objectives for attack by infiltration are key terrain features, especially those which restrict the movement of enemy reserves or isolate his defensive positions, reserves, fire support means, command and communication installations, and critical logistical installations. The objectives must contribute directly to the accomplishment of the division's mission and should not result in dissipation of strength.

e. Small infiltrating groups can be assigned missions of target acquisition and of obtaining other intelligence, of harassing enemy units and installations, or of interdicting enemy routes. The effect of such missions on coordination of friendly fire support must be considered.

f. Infiltration is difficult to coordinate and control. Deviation from plans is difficult to coordinate during the operations. Coordination of the movement of the infiltrating groups with the division's fires is essential. Arrangements for the link-up with other attacking forces or for exfiltration are necessary.

g. An infiltrating unit may be controlled by the division or control can be decentralized to a unit which is operating in the area of infiltration. If the infiltrating unit is under division control, link-up plans are made at division level to facilitate this phase. Unity of command normally dictates that at the time of juncture, control of the infiltrating units pass to the unit linking up.

h. Within the area of infiltration a series of infiltration lanes of sufficient width to permit the infiltrating groups to move by stealth is designated. Infiltration lanes, in conjunction with the coded designation of infiltrating groups and their probable sequence of movement, checkpoints, and phase lines provide a means of reporting the progress of the operation and of coordinating fires with movement of the groups. Other control measures used are attack positions, objectives, and rallying points or areas.

i. Adequate communications are provided for use within the infiltrating unit and for use between that unit and the controlling headquarters.

j. Infiltrating groups moving on foot generally are limited to hand-carried weapons. Consequently, they are provided additional fire support from division means. This requires good observation, reliable communications, and a responsive system of obtaining the fires. Although groups traveling by air can carry more and larger weapons, they frequently will also require additional fire support.

k. Because of the nature of the operation and the hazards encountered during movement, it is essential that maximum dissemination of the plan be made including the action to be taken in the area of decisive action.

l. Suitable recognition signals, both visual and sound, are provided all units operating in the area of likely link-up to prevent fire fights between friendly elements.

m. Figure 13 depicts the division attacking by infiltration.

163. Conduct of the Infiltration

a. The infiltrating elements in small groups pass through, over, or around the enemy forward defensive positions avoiding detection, where possible and, if detected, avoiding decisive engagement. They move, normally through multiple lanes, to attack positions

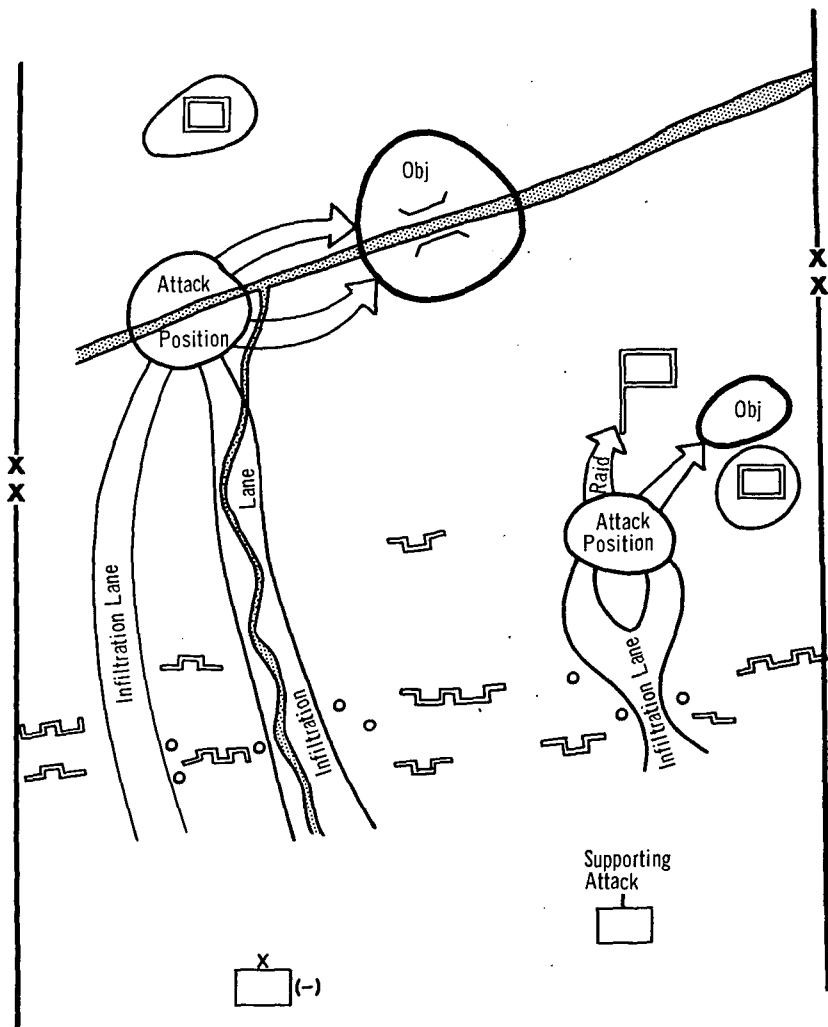


Figure 13. Division attacking by infiltration.

in the area of decisive action. The passage of the groups through the enemy position and their movement to their attack positions may be accompanied by demonstrations, including preparatory fires, in areas not included in the infiltration. Preparatory fires may be placed on the enemy positions in the area of infiltration to reduce the enemy's surveillance capability.

b. Upon arrival in their attack positions, the infiltrating groups move into their attack formations and prepare for action. At a specified time the infiltrating force executes its mission and prepares for link-up or exfiltration.

c. Groups which lose direction or are unable to reach the attack position proceed to rallying points or areas. Contingency plans cover their subsequent actions including their evacuation.

d. If airborne or airmobile forces are being used for infiltration, the aircraft flying individually or in small groups pass through the enemy forward defense area. This passage, where possible, is over unoccupied areas and may follow routes which ground patrols have found to be clear of enemy units. During and after movement to the attack position, aircraft simulate landing at other locations as a deception measure. Infiltrating groups may land at various points in the enemy's rear and proceed on foot to the designated attack position. Other aspects of the operation are similar to those of surface infiltration.

e. A widely dispersed enemy, suitable trafficability of terrain, and concealment may enable infiltrating units to use vehicles during the operation. Similarly, infiltrating groups may use small watercraft.

f. Infiltrating forces proceeding to great depths or remaining in the enemy's rear for extended periods require supply which can sometimes only be accomplished by air. Maximum use should be made, however, of captured enemy stocks, but the success of the operation must not be jeopardized by sole reliance on the seizure of such stocks.

g. Friendly units bypassed during defensive operations can be used in a manner similar to those which have infiltrated enemy positions.

Section IX. EXPLOITATION

164. General

a. Exploitation is the following up of gains to take full advantage of success in battle. It is a phase of the offensive that destroys the enemy's ability to reconstitute an organized defense or to withdraw in good order in the face of threatened disaster.

b. Exploitation ranges from that of pursuing small local forces to the pursuit of large enemy forces. While individual local exploitations may appear insignificant, their cumulative effects may be decisive.

c. The division may exploit its own success, may be the exploiting force for a higher echelon, or may follow and support another exploiting force.

165. Basic Considerations

a. Exploiting forces may be given the mission of destroying

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. Speed and combat power are required in exploiting forces. Tank, mechanized or motorized infantry, and armored cavalry normally make up the forward elements. Army aircraft can be used to provide mobility to foot elements. Provisions are made for engineer support to overcome obstacles. Adequate signal communications to support must be furnished. (See par. 80.)

c. Preparation for the exploitation entails planning, warning orders, grouping of exploiting forces, provision of administrative support, and establishment of communications.

d. The commander must be ready at all times to exploit opportunities afforded by the enemy. Opportunities for major exploitations are 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 attack to the exploitation may be so gradual as to be hardly distinguishable or it may be abrupt, the latter occurring most frequently when nuclear weapons are used.

e. When nuclear fires are not available or are limited, the exploitation normally occurs after the successful assault or destruction of the division objective. With adequate nuclear support, however, the exploitation may be launched in conjunction with the initial assault or at any time thereafter, dependent upon 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. Administrative support and combat support plans are flexible. Administrative support operations are normally decentralized.

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

i. Air Force reconnaissance aviation and Army aircraft maintain contact with the enemy, locate enemy movements, and keep the command advised of enemy activities.

j. Tactical aircraft inflict maximum damage by attacking enemy routes especially at defiles, enemy reserves, and withdrawing columns.

k. Class III consumption rates are high, and provision for rapid supply is essential. Security of ground supply columns must be considered since forward elements may be operating behind bypassed enemy forces. Aerial supply may be necessary.

166. Conduct of the Exploitation

a. Employment of forces in the exploitation is similar in many respects to the advance to contact (pars. 139-146). Attack from march column is normal.

b. Exploiting forces advance rapidly and arrive at their objectives with maximum strength. The exploiting force clears only as much of its zone as is necessary to permit its advance to continue. Commanders avoid dissipation of forces to achieve minor tactical success. Enemy forces that interfere, or can interfere, with accomplishment of the mission are destroyed. Exploiting forces bypass or contain with minimum forces, enemy resistance of insufficient strength to jeopardize the accomplishment of the mission. Bypassed enemy forces are reported to the higher headquarters or to the following unit.

c. When the leading elements of a march column make contact with enemy forces, they deploy and attempt to bypass or to continue to advance. If the resistance is too heavy for the leading elements to overcome and cannot be bypassed, they develop the enemy position, reporting to the main body. Succeeding elements in the column are employed to strengthen the leading elements, to execute a coordinated attack, or both in accordance with the principles of the penetration or the envelopment.

d. Commanders use all means and weapons to overrun enemy forces which cannot be bypassed or contained. Exploitation continues day and night without regard to weather. Reconnaissance elements, both ground and air, keep commanders informed of enemy action. Rapid advance of exploiting forces reduces their vulnerability to enemy counteraction.

e. As enemy demoralization begins and enemy forces disintegrate under pressure, exploitation may develop into pursuit.

f. Following and supporting units initially prevent the enemy from closing the gap in a penetration, and they secure key terrain gained during the penetration or envelopment. As the exploiting force advances, the following and supporting units secure lines of communications, mop up, destroy bypassed pockets of resistance,

expand the area of exploitation from the axis of advance of the exploiting force and block the movement of enemy reinforcements into the area. Following and supporting units relieve elements of the exploiting force, which have been left to block or contain enemy forces or to protect areas or installations. They may assist the exploiting force in handling CA activities and PW's.

g. Following and supporting units must be capable of keeping up with exploiting forces. They may employ nuclear fires in the accomplishment of their missions. Close liaison is established between commanders of the following and supporting unit and the exploiting force. Elements of the following and supporting unit may be attached to the exploiting force.

Section X. PURSUIT

167. General

a. The pursuit is the final phase of exploitation. It differs from other forms of exploitation in that its primary function is to complete the destruction of the enemy force which is in the process of disengagement. While a terrain objective may be designated, the enemy force itself is the primary objective.

b. The pursuit usually consists of direct pressure and encircling forces.

- (1) The mission of a direct pressure force is to prevent enemy disengagement and subsequent reconstitution of the defense and to inflict maximum casualties. It does this by attacking constantly, day and night. The enemy is not allowed to break contact. He is denied the opportunity to reorganize and reestablish his defense. Leading elements of the direct pressure forces move rapidly along all available roads, containing or bypassing small enemy pockets of resistance which are reduced by following units. At every opportunity, the direct pressure force envelops to cut off and destroy enemy elements, provided such actions do not interfere with its primary mission.
- (2) The mission of the encircling force is to get in rear of the enemy and block his escape so that he will be destroyed between the direct pressure and encircling forces. It advances along or flies over routes paralleling the enemy's line of retreat to reach defiles, communications centers, bridges, and other key terrain ahead of the enemy main force. Airborne, armored, and mechanized units are particularly effective as encircling forces. If

the encircling force cannot outdistance the enemy, it attacks the enemy main body on its flank.

- (3) The division may conduct local pursuits or may be used as the direct pressure or encircling forces of a higher echelon in the pursuit.

168. Basic Considerations

a. A force in the exploitation is alert to indications of enemy collapse which enable pursuit. It make prior preparations for pursuit including issuance of warning orders, regrouping of forces, and provision of logistical support.

b. The attacker uses all possible means to maintain the continuity of the attack. When the enemy can no longer maintain his positions and seeks to escape, the pursuit is launched. Destruction of the enemy force is the primary objective of the attacking forces. Prompt exploitation of nuclear fires may permit pursuit to be launched during the initial assault.

c. Successful pursuit requires unrelenting pressure against the enemy to prevent reorganization and preparation of defenses. This requires that troops and equipment be pushed to the limit of their endurance. Commanders are located well forward to insure the impetus of advance. Greater risks may be taken to achieve decisive results.

d. When the division conducts local pursuit operations, organization for combat provides a direct pressure force of sufficient size and composition to maintain continuous pressure. The encircling force must have mobility superior to the enemy and must be organized for a semi-independent operation. The enemy's inability to react effectively reduces the need for mutual support. Engineer units are required in both forces to clear the zones of obstacles and enable advancing columns to move rapidly. Adequate signal communication support must be provided (see par. 80).

e. Infantry and airborne units normally require additional mobility for pursuit operations.

f. Adequate preparation is made for logistical support. Class III consumption is particularly high. Air transportation may be used for prompt delivery of supplies to forward units. Maximum use is made of captured enemy materiel, particularly transportation, and stocks of supplies.

g. Security is enhanced by the speed of advance, the enemy's inability to react effectively, and the dispersion of forces.

169. Conduct of the Pursuit

a. The pursuit is conducted on as broad a front as possible. Forces engaged in direct pressure and encircling maneuvers are given deep objectives, mission type orders, and minimum controls. Maximum latitude is given subordinate commanders for exercise of their initiative. Decentralization of fire support and administrative support means is usually necessary.

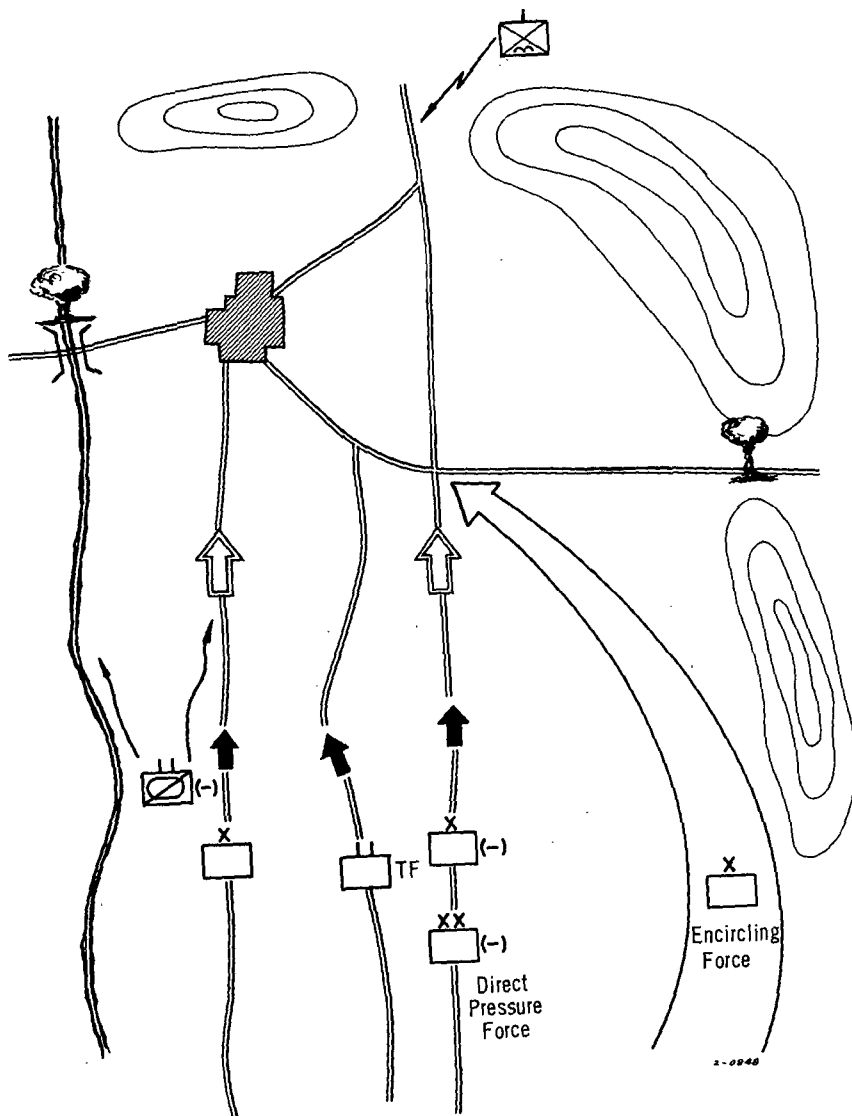


Figure 14. Division conducting a pursuit.

b. Direct pressure forces advance relentlessly while the encircling force cuts the enemy's lines of retreat. Double envelopment of the retreating main force or its elements is accomplished when conditions permit. Hostile rear guards or forces on flank positions are not permitted to divert the main force from its mission. Airmobile units are used to envelop enemy rear guards expediting their destruction and speeding the movement of the force. If the enemy's main force establishes itself on a position from which it cannot be quickly dislodged, the commander immediately attacks.

c. If the attempt to cut the enemy's escape routes fails, a new encircling force is immediately dispatched.

d. Air support is desirable in the pursuit. Reconnaissance aircraft keep commanders informed of locations and activities of enemy forces. Tactical aircraft inflict maximum damage on the retreating enemy, concentrating on his lines of withdrawal, on his columns, and on his reserves.

e. Figure 14 depicts the division conducting a pursuit.

Section XI. NIGHT COMBAT

170. General

a. Night combat is an integral part of all operations. Movement, attack, exploitation, and defense at night are routine. However, certain aspects and considerations must be recognized during the planning and execution of operations at night. These involve the increased difficulty of control resulting from reduced visibility.

b. Night operations which achieve surprise may offer opportunities for success when daylight operations are impracticable. Continuous pressure applied day and night, particularly against a weakening enemy, hastens his defeat.

c. Troop movements, concentration of forces prior to the attack, and conduct of an attack which may be impossible during daylight may be executed in darkness with minimum risk.

171. Basic Considerations

a. Night combat is characterized by a decrease in the effectiveness of aimed fire and a corresponding increase in the importance of close combat and supporting fires.

b. Morale of troops both friendly and enemy is highly sensitive to physical and psychological factors. Reverses and failures at night generally affect troops more than the same reverses or

failures would in daylight. Well-trained troops, confident of their ability to fight at night, can use these psychological factors in their favor.

c. Darkness increases difficulty of movement, maintenance of direction, and control. The time required to execute movements and emplace weapons is greater at night than in daylight. Simple schemes of maneuver with well-defined objectives and routes simplify control. Leaders must be well forward in attacking echelons. Full use is made of navigational aids to assist in maintenance of direction.

d. Subordinate commanders must have adequate time for reconnaissance. They should be able to observe, during daylight, terrain over which their units will move in order to fix terrain features which will aid maintenance of direction.

e. Coordination of nuclear fires with maneuver at night is difficult. Darkness increases troop safety considerations because of dazzle. Obstacles created by nuclear fires are difficult to traverse at night. Nuclear fires may destroy landmarks which were to be used as control measures.

f. Enemy use of nuclear weapons may affect the vision of attacking or defending troops rendering them ineffective for appreciable periods. Fires created by nuclear weapons may assist in identification of objectives and maintaining direction but may also silhouette forces of either side.

g. All combat and combat support units can be used at night. The effectiveness of armor is increased by the use of illumination, including tank-mounted infrared devices and searchlights. Illumination also assists in the adjustment of artillery fire.

h. Illumination by diffused lighting in rear areas assists in troop movements, logistical operations, and the operation of supporting weapons.

172. The Night Attack

a. General.

- (1) The same considerations of planning, preparation, and conduct apply to attacks at night as apply during daylight. The same forms of maneuver may be used. Night attack plans, however, are usually less flexible than those of daylight attacks.
- (2) The division attacks at night to continue an attack started in daylight, to achieve surprise and psychological superiority, to gain important terrain for further operations,

to use concealment afforded by darkness in order to avoid heavy losses, to exploit, and to compensate for friendly air and armor inferiority.

b. Planning.

- (1) The procedures involved in planning attacks at night are the same as for daylight attacks. Items are listed below for emphasis.
- (2) The decision to make a night attack is made sufficiently in advance to provide time for reconnaissance, detailed planning, and coordination. The use of warning and fragmentary orders and concurrent planning is habitual. Successful attacks can be made at night on an impromptu basis, but the risk of failure is greater. Attacks in progress are not discontinued merely because of nightfall. Subordinate units in the attack plan to continue the attack through the night unless ordered otherwise.
- (3) The concept for the night attack must be simple and planned in detail. The scheme of maneuver, fire support plan, and control measures are carefully specified.
- (4) If the attack is to seize favorable terrain for a succeeding daylight attack, it is usually launched during the final hours of darkness to give the enemy minimum time in which to interfere with the subsequent attack. However, attacks launched during early darkness permit the attacker to take maximum advantage of a long period of darkness and exploit the enemy's confusion and loss of control. Attacks may be initiated during darkness and continued without pause during daylight. Infiltration may be employed at night followed up by other methods of attack at daylight or during remaining darkness.
- (5) Secrecy is stressed during preparations for the attack. Reconnaissance, noise, and light are carefully controlled. Deception measures include sounds to cover the movement of vehicles.
- (6) Although it is desirable that night attacks be made with fresh troops, the paramount consideration is that the attacking troops be as familiar as possible with the terrain over which they will attack.
- (7) If conditions permit, a rehearsal of the attack is conducted over similar terrain and under similar conditions of light.

c. Coordination and Control.

- (1) Highly restrictive control measures are used to prevent collisions between attacking units. As a minimum, ob-

jectives, limits of advance, a line of departure, boundaries, and phase lines are used. Directions of attack are frequently assigned.

- (2) Deep division objectives require that a series of intermediate objectives be assigned to assaulting units to facilitate control. Battlefield illumination assists in movement and control. It enables a command to seize deeper objectives than otherwise possible.
- (3) Limits of advance, beyond which attacking troops will not proceed unless specifically instructed, are assigned. The limit of advance provides for the control of maneuver elements, troop safety of attacking units, and freedom for artillery and other fire means to attack targets beyond that line.
- (4) Provisions are made for indicating direction by firing tracers, incendiaries, or by other improvisations.
- (5) Provisions are made for mutual identification of troops.

d. Battlefield Illumination.

- (1) The use of battlefield illumination assists in coordination and control and increases the effectiveness of aimed and observed fires. It may, however, be of some assistance to the enemy and cause reduction in surprise. Its use must be carefully coordinated to avoid detrimental effects in adjacent areas.
- (2) Searchlights, illuminating shells, and aerial flares are the principal means of illuminating the battlefield. The decision to employ illumination depends upon—
 - (a) *Natural light conditions.*
 - (b) *Availability of means.*
 - (c) *Surprise.* Surprise is attained by withholding illumination until the critical moment of illuminated attacks. The illumination then serves to blind the enemy while assisting friendly troops. Prior employment patterns of friendly illumination may have a decided influence on surprise.
 - (d) *Enemy's use of illumination.* Enemy illumination may be used to advantage by the attacker.
 - (e) *Coordination and control.* The use of illumination may overcome disadvantages resulting from insufficient time for reconnaissance, deep objectives, and difficult terrain. It may permit accelerated cross-country movement and thus further the rapid exploitation of nuclear fires.

- (3) Searchlights in a direct role can be used to dazzle enemy observers and gunners.
- (4) If the attack is not to be illuminated, plans for on-call illumination are prepared. Such action facilitates its employment in the event of enemy use of nuclear weapons, loss of surprise, and other contingencies.
- (5) Terrain, vegetation, structures, weather and atmospheric conditions, and the vulnerability of illuminating means to enemy countermeasures are technical considerations in the selection of means to be used and the method of their employment. See FM 20-60 for details of employment.

e. Fire Support.

- (1) In determining whether a preparation will be fired, its probable effects on maneuver must be weighed against the effect of greater surprise stemming from an attack by stealth. If a preparation is not fired, on-call fires are planned to be used in the event surprise is lost.
- (2) In addition to normal fires, fires are planned to cover the withdrawal of the attacking force and, if possible, to isolate the area of the attack.
- (3) Normally on-call nuclear fires are not used because of the difficulty of achieving troop safety. When on-call nuclear fires are used, normal troop safety warnings must be augmented to insure protection against dazzle.
- (4) Smoke may reduce the effectiveness of enemy illumination; however, searchlights beamed on low lying cloud-banks or smoke provide effective illumination.

f. Conduct of the Attack.

- (1) Simple formations are used at all echelons. Column formations are held as long as possible and deployment occurs at the last possible moment. Each attacking unit is given a definite direction and objective. Contact is maintained between columns and every precaution is taken to prevent their collision.
- (2) Enemy sentinels and listening posts are quietly and rapidly silenced. Infiltrators may, at a time coordinated with the main attack, attack command installations and communications to increase enemy reaction time. Attacks on enemy reserves and fire support means further confuse his efforts.
- (3) Leaders are well forward to insure rapid aggressive movement of their units, maintenance of direction, avoidance of collision, and coordination with other units and fire support.

- (4) The division reserve is located where it is available to exploit success, replace a unit in the attack, or cover a withdrawal. At night, the reserve is committed only in an area where the possibility of collision with friendly troops is remote or when illumination is used.

Section XII. RECONNAISSANCE IN FORCE

173. General

a. The reconnaissance in force is an attack to discover and test the enemy's position and strength. Although its primary aim is reconnaissance, it may discover weaknesses in the enemy dispositions which, if promptly exploited, may permit tactical success.

b. When the availability of nuclear weapons permits, the principal effects of the division may be a widespread and continuous reconnaissance in force. Under these conditions the reconnaissance in force locates, forms or lures enemy forces into remunerative nuclear targets, and holds them in this configuration until nuclear fires can be used. The maneuver elements then complete their destruction. The division's reserve is held ready to replace or relieve maneuver elements or to exploit opportunities which may develop.

174. 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 the—

- (1) Extent of his present knowledge of the enemy situation and the urgency and importance of the additional information sought.
- (2) Efficiency and speed of other intelligence collection agencies.
- (3) Extent to which his plan of action may be divulged by the reconnaissance in force.
- (4) Possibility that the reconnaissance may lead to a general engagement under unfavorable conditions.

b. When information is sought regarding a particular area, the reconnaissance in force is planned and executed as an attack with a limited objective. If the enemy situation along a front is to be developed, the reconnaissance in force is an advance employing strong aggressive probes to determine the enemy situation at critical points.

c. The reconnoitering force must be of size and composition 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 upon the mission of the division and the situation. The division commander may use a battalion task force or he may use the bulk of the division, retaining sufficient reserves to exploit enemy weaknesses. The task force should include tanks.

d. The division may employ several task forces on reconnaissances in force 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. If the reconnoitering force effects a penetration, it disrupts and destroys all possible enemy rear installations. 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 is weak in control and communication means.

175. Organization for Combat

Units designated to make the reconnaissance in force should have sufficient combat power to uncover main enemy positions. Tanks offer the best means to furnish adequate combat power. When available, tanks provide such power.

176. Conduct of the Reconnaissance in Force

a. Although reconnaissance in force is a form of attack, restrictions may be placed upon the commander of the force to avoid actions which might precipitate a general engagement.

b. The division commander is alert to exploit success gained by the reconnaissance in force. Such actions include continuation of the attack or control of terrain seized by the force. Suitable targets discovered by the forces are attacked by nuclear weapons, and their destruction is completed by local exploitation by the reconnoitering force.

c. The division commander prepares to assist in the extrication of the force if it becomes closely engaged.

d. 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 the reconnoitering force in the attack or it may itself continue the attack.

e. Figure 15 depicts a division conducting a reconnaissance in force.

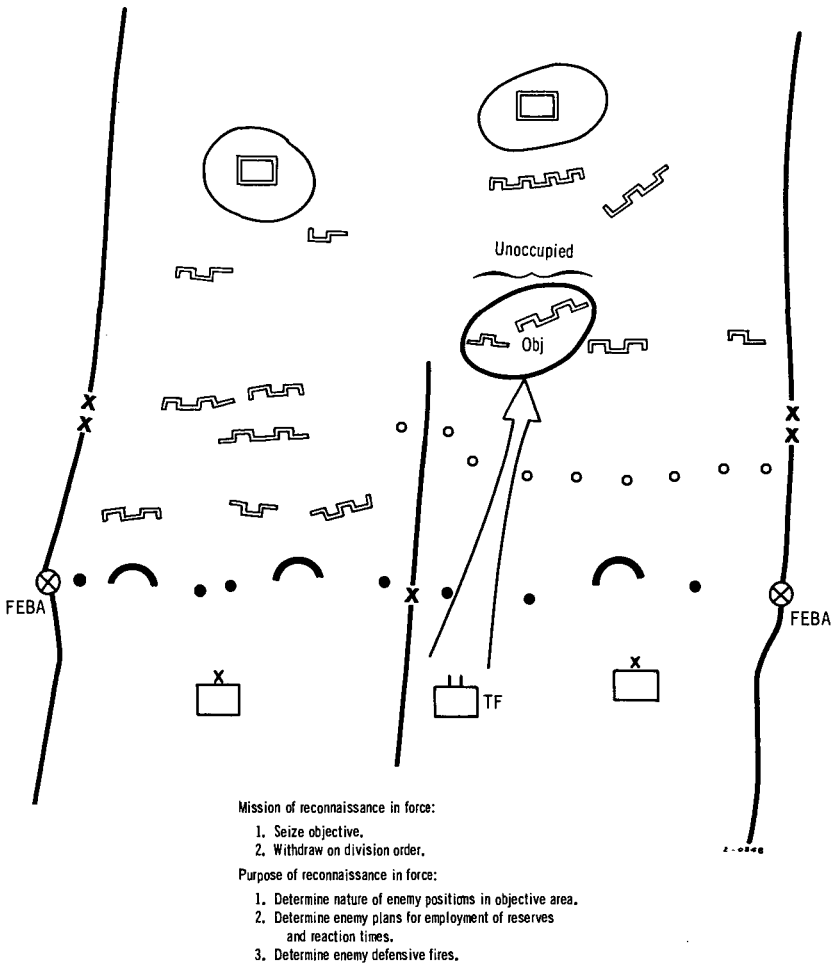


Figure 15. Division conducting a reconnaissance in force.

CHAPTER 6

DEFENSE

Section I. GENERAL

177. Introduction

a. Defense is a basic form of combat in which the purpose is to prevent, resist, repulse, or destroy an enemy attack. The defense is undertaken to develop more favorable conditions for subsequent offensive operations, to deny entrance of the enemy into an area, to reduce enemy combat capability with minimum losses to friendly forces, to trap and destroy hostile forces, or as an economy of force measure.

b. Although organized and equipped primarily for use in offensive operations, each division has a significant capability for conducting the defense. Specific situations where a division may be required to defend include:

- (1) Defending deep objectives pending arrival of ground link-up forces.
- (2) Defending on a broad front to cover the establishment of defensive positions in the rear by other corps elements.
- (3) Defending along a terrain obstacle for a specified period as part of a higher level retrograde action.
- (4) Defending a designated sector as part of an organized corps or army defensive position.

178. Concept of Defense

In the defense, the defender seeks to force the enemy to react in conformity with the defensive plan. Enemy weakness and errors are exploited by offensive operations whenever possible. Initiative is obtained by selecting the battle area and by seizing every opportunity to destroy enemy forces.

179. Fundamental Considerations

The planning, organization, and conduct of the defense are based on certain fundamental considerations which include:

a. *Proper Use of Terrain.* Terrain is a major factor in the selection of the defensive area and the location and distribution of de-

fending forces. The defender retains control of those terrain features essential to observation, communications, and maneuver of reserves; he denies the enemy the use of terrain which might jeopardize the success of the defense. Advantage is taken of obstacles to strengthen the position or to divert the enemy into areas suitable for counterattack. Obstacles in the area have a strong bearing on the general defensive scheme including the distribution of forces and the positioning of reserves. All probable enemy avenues of approach into the area should be visualized. An evaluation of avenues of approach in conjunction with key terrain features serves as the basis for positioning forces as well as use of surveillance means, fire planning, and use of security forces. The selected area should afford good observation and fields of fire and adequate cover and concealment to the defending forces.

b. Security. Necessary steps must be taken to avoid tactical surprise. This is of particular concern in the defense when the attacker retains the initiative as to the time, place, direction, and strength of the attack. Therefore, means are provided 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 division 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 possibility exists that the enemy may attack from a direction other than expected or considered likely. Also, the enemy may attack the division rear by means of envelopment or large scale guerrilla action. The division must be capable of meeting an attack from any direction. It must not permit the enemy to gain a decisive advantage by means of surprise as to the direction or location of the attack. The division prepares for all-round defense by the careful initial disposition of forces, by the planned redistribution of troops and shifting of fires to meet contingencies, and by insuring that all subordinate units are prepared for all-round defense.

d. Defense in Depth. Adequate depth to the defense is essential. It is expected that a strong attack supported by nuclear weapons will permit the enemy to advance some distance into the defense area. Therefore, there must be sufficient depth to the defense to contain or canalize the enemy and to permit execution of counterattacks. Shallow defenses are inherently vulnerable since the enemy may breach such defenses before he can be contained or effective counteraction taken. Depth to the defense is achieved

by proper deployment of forces, preparation of additional areas in depth, maneuver of forward elements to alternate areas as necessary, and use of mobile reserves in any portion of the division area.

e. Responsiveness. The defense is organized to permit the shifting of forces and fires to counter the attack as it develops. Mobile reserves and nuclear weapons provide the division commander with freedom to conduct the defensive battle.

f. Dispersion. In a nuclear situation, dispersion is an important consideration in organizing the defense so as to limit or minimize vulnerability to nuclear attack. However, the need for maximum dispersion is balanced against certain operational requirements for concentration that may be necessary in order to accomplish the mission. For example, the requirement to retain control over specific terrain may oppose optimum dispersion. In such cases the mission is paramount, and the degree of risk in accepting a lesser dispersion is secondary. A force which disperses laterally rather than in depth risks isolation of its separate forward combat units, subsequent penetration by frontal attack, and defeat in detail. Dispersion in depth is preferable to purely lateral formations since it avoids frontages that overextend the defender, 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 posture from which to launch counteroffensive operations.

g. Maximum Use of Offensive Action. In the defense, every opportunity is taken to maintain the initiative over the enemy and to destroy enemy forces. The division must be prepared to take offensive action whenever the opportunity presents itself. The counterattack, a spoiling attack, and small unit offensives are often the key to success in the defense. By such offensive action decisive results can be achieved.

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

- (1) Fire plans, including use of both nuclear and nonnuclear fires, are prepared to directly support forward defense elements, to control unoccupied areas or cover barriers, and to support offensive action such as counterattacks. Planned fires are integrated into the overall defensive scheme and fires of all units are closely coordinated.
- (2) Natural terrain features may be supplemented by minefields and other artificial obstacles and, when authorized, chemical agents and residual nuclear effects including

fallout from surface bursts. Use of minefields and other obstacles will vary with the commander's mobility requirements. They may be useful in the defense to channel or slow enemy advances if resumption of the offensive over the same terrain is not contemplated. The division barrier plan is integrated with the requirements of the next higher echelon and is designed to support the scheme of defense. It is coordinated carefully to insure that it will accommodate planned maneuver, particularly the movement of reserves.

(3) In the disposition, maneuver, and fire planning of combat elements, consideration is given to mutual support.

i. Time. Time available for planning and preparation is considered in selecting a form of defense.

Section II. FORMS OF DEFENSE

180. General

The fundamental forms of defense are the mobile defense and the area defense. Often the most suitable form of defense for a given situation will be some variation of either the mobile or area defense, incorporating elements of each. The defensive pattern established is that which best meets the requirements of the particular situation after consideration of the resources available.

181. Mobile Defense

In the mobile defense, minimum forces are employed in the forward area and a strong, mobile reserve is held in the rear. The forward elements serve to warn of impending enemy approach, to disorganize and delay the enemy as much as possible, and to canalize the attacking forces into areas suitable for counterattack by the reserve. The power of the division is concentrated in the mobile reserve, which is employed in offensive counteraction to destroy the enemy at the most favorable time and place. Mobility equal or superior to that of the enemy is essential for all elements of the defensive force. The defender must retain sufficient freedom of action to permit decision as to the time and place for the counterattack. The mobile defense is primarily oriented toward the destruction of attacking enemy forces (fig. 16).

182. Area Defense

In the area defense, employed when adequate mobile forces are not available or suitable terrain and air cover do not prevail, emphasis is placed on retaining control over specific terrain and

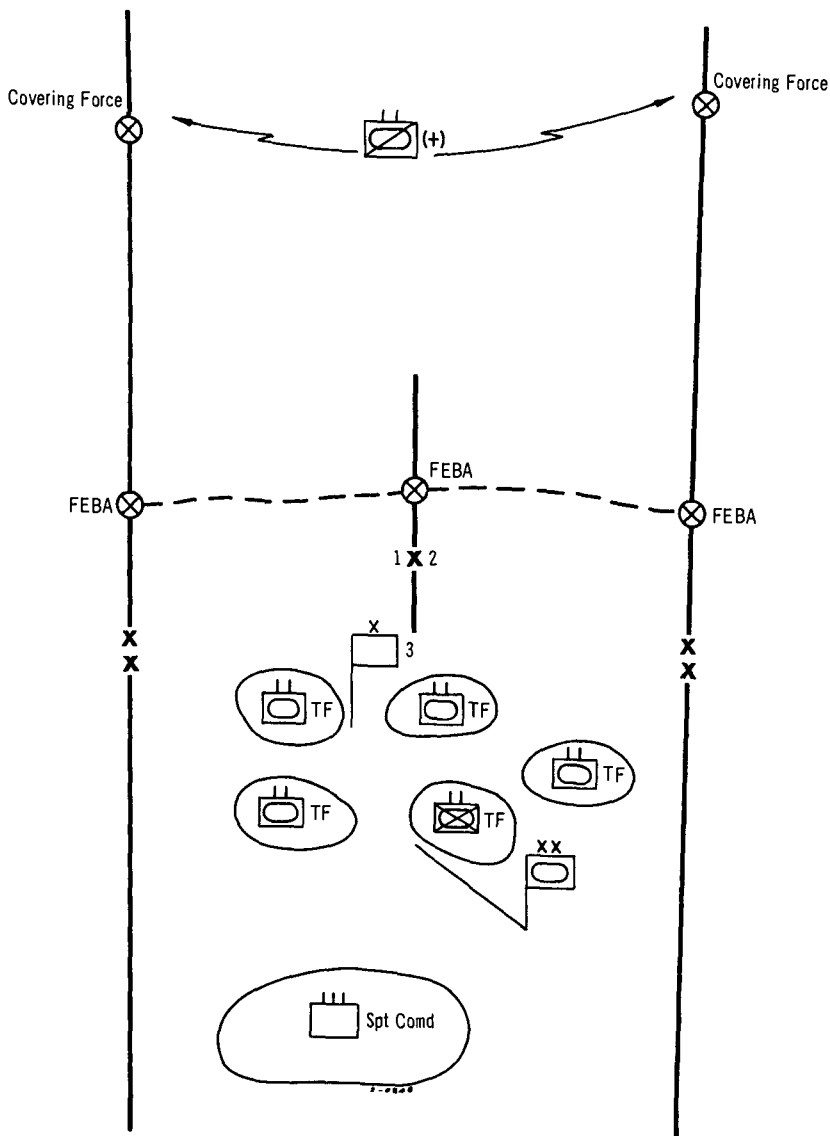


Figure 16. Mobile defense, armored division.

reliance is placed on forces deployed on position with supporting fires to stop and repulse the attacker. Sufficient forces are disposed in the forward area to dominate the terrain being defended. A reserve is employed to block and destroy the enemy if possible, to eliminate penetrations if they occur, or to reinforce threatened

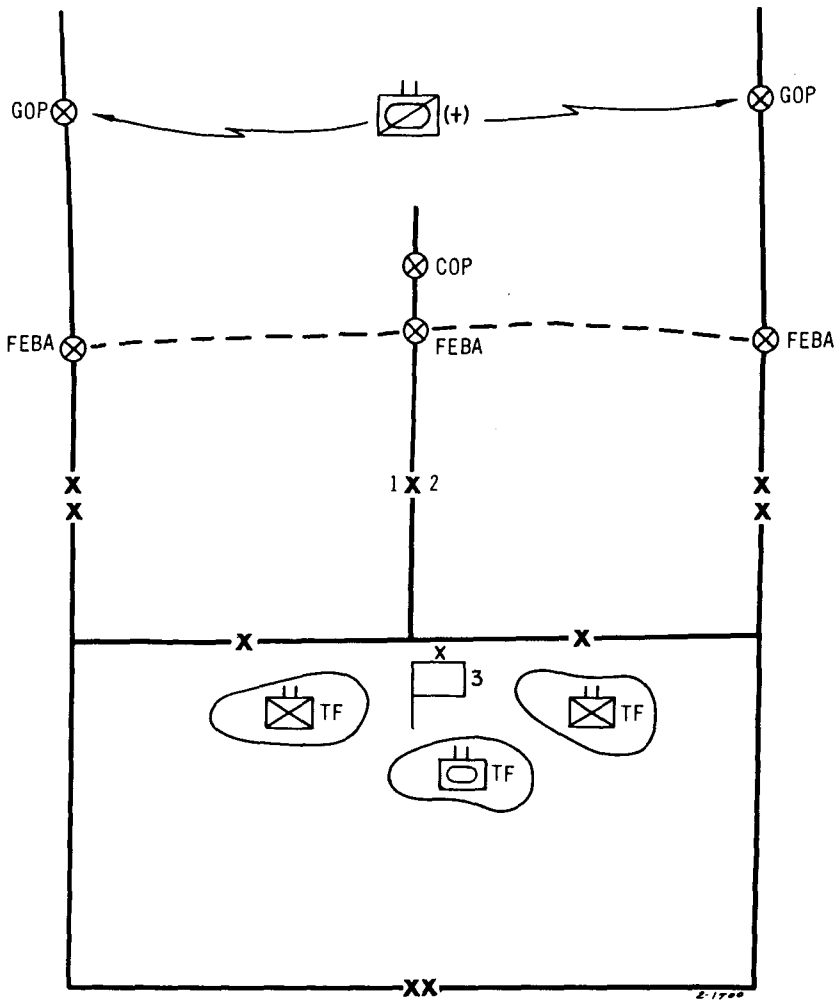


Figure 17. Area defense, infantry division.

forces. Therefore, as contrasted with the mobile defense, the forward defense area normally has a higher priority for forces than does the reserve (fig. 17).

Section III. DEFENSIVE ECHELONS

183. General

Defensive echelons include the security area, the forward defense area, and the reserve area. Each of these echelons is allocated forces and fires as part of the overall defense plan.

184. Security Area

The security area begins at the forward edge of the battle area and extends to whatever distance to the front, flanks, and rear that security elements are employed. Forces in the security area furnish information of the enemy; delay, deceive, and disrupt him as much as possible; and provide a counterreconnaissance screen. Such forces may have the mission of locating and developing nuclear targets. Forces operating in the security area may include elements provided by higher echelons such as covering forces, aerial surveillance, and flank and rear security. Division forces in the security area will consist of the covering force or general outpost, combat outposts, flank and rear security, division aerial surveillance, and patrols from units located in the division forward defense area.

185. Forward Defense Area

The forward defense area extends rearward from the forward edge of the battle area to include that area organized by the forward committed units. The composition of forces in the forward area depends on the form of defense employed.

a. The forces located in the forward defense area in the mobile type defense are the minimum necessary to carry out the mission of disrupting, delaying, canalizing the enemy into areas suitable for counterattack by the reserve, and forcing the enemy to mass for nuclear weapons employment. These forward elements must be provided with long range fire support and a degree of mobility equal or superior to that of the enemy.

b. When the defense is based on retaining control over key terrain, as in the area defense, the bulk of the combat forces are normally used to organize the forward defense area.

186. Reserve Area

The reserve consists of those uncommitted forces held under division control and is the principal means by which the commander influences the defensive battle and regains the initiative. The combat power of the reserve may consist of nuclear weapons or maneuver elements, or both.

a. In the mobile defense, the reserve is the decisive element of the defense. It is organized as strongly as possible with tanks and mechanized forces, and has the primary mission of counterattacking at the opportune time and place to destroy the enemy.

b. In the area defense, the reserve is normally not as large as in the mobile defense; however, it is given as much strength as pos-

sible consistent with the requirement for strong forces in the forward defense area. The reserve may be used to eliminate penetrations, to block, or to reinforce threatened areas.

Section IV. PLANNING THE DEFENSE

187. General

a. The plan for the defense is developed as a result of a careful analysis of the situation. The defender has an advantage since he can normally reconnoiter and select the area within which the defense is to be organized.

b. After the basic form of defense has been determined, the plan is developed in detail to include organization of the ground, designation of control measures, organization for combat, missions to subordinate units, fire support plans, administrative support plans, and counterattack plans.

188. Selection of Form of Defense

a. In the initial stages of planning, determination is made as to the basic form of defense to be used. The form of defense may be specified by higher headquarters or the decision may be left to the division commander.

b. Factors which affect the commander's choice of the form of defense include the mission, the enemy, the terrain, relative mobility of forces, time, and the nuclear and air situations.

- (1) *Mission.* The mission given to the division by higher headquarters may clearly specify the type of defense. If the mission permits the defense to be organized and fought in sufficient depth, a mobile defense is appropriate. If, on the other hand, the mission requires that specific terrain be held, an area defense may be necessary.
- (2) *Terrain.* Terrain which favors maneuver of the defensive forces favors the mobile defense. Terrain which restricts the movement of forces, particularly the reserve, favors the area defense.
- (3) *Mobility.* The mobile defense demands a favorable degree of mobility. Inferior tactical mobility in relation to the enemy may indicate the adoption of an area defense. The organic mobility of the armored and mechanized divisions is a strong factor in favor of the mobile defense if these divisions are available.
- (4) *Nuclear weapons.* Nuclear conditions tend to favor a mobile defense. The enemy nuclear capability requires

the division to conduct the defense with dispersion and mobility to decrease vulnerability to nuclear attack. Nuclear weapons possessed by the defender increase the strength and flexibility of the defense, thereby permitting defense of a larger area than would otherwise be possible.

- (5) *Air situation.* Friendly air superiority will prevent enemy air interference with the movement of major forces and will, therefore, support a mobile defense which depends on maneuver. However, enemy air superiority will limit extensive maneuver of the defending forces and will, therefore, indicate the area defense.
- (6) *Time.* The time available for planning the defense, deployment, and organization of the ground may influence the form of defense adopted and the—
 - (a) Composition and location of forces in the defensive echelons.
 - (b) Organization for combat.
 - (c) Organization of the ground.
 - (d) Use of offensive action.
- (7) *Enemy.* The strength, organization, disposition, and movement of the enemy are considerations in planning the defense.

189. Organization of the Ground

a. As a prerequisite to detailed planning for the organization of the defense, it is necessary to know the specific mission of the defense force including the time the operation is to start and any special requirements which are imposed; the area to be defended; and the form or variation of defense to be used. The area to be defended normally is specified by higher headquarters by designation of division boundaries and coordinating points along the forward edge of the battle area. The exact location, however, may be left to the discretion of the division commander when there is no requirement for coordination with other major units on the flank, such as may occur in the defense of a bridgehead.

b. Detailed reconnaissance of the area is necessary to determine the major avenues of approach into the area, key terrain features which control these avenues of approach, natural obstacles, and routes for the movement of forces within the area. Selection is made of areas to be occupied and organized by the forward defense forces based on a consideration of the terrain and mission. Also, the location of security forces and the location of the reserve is designated.

c. Once determination is made as to the specific location of the forward defense area, the division area is divided into sectors designating responsibility for major subordinate units. Boundaries between these major subordinate units are located so as not to split responsibility for major avenues of approach or key terrain features which control them.

d. Organization of the ground involves use of the natural defensive qualities of the terrain and improvement of the natural terrain to the fullest extent possible with the men, materials, and time available. This may include the laying of mines, erection of artificial obstacles, camouflage, protective construction, and improvement of observation and fields of fire. Barriers are integrated into the defensive scheme to hold the enemy under fire or to divert him into areas where he can be destroyed by fires and offensive maneuver. The barrier plan is designed to take maximum advantage of natural obstacles. When their use is authorized, chemical agents and nuclear fires may be used effectively to contaminate barriers, obstacles, and defiles to further impede enemy movement and canalize his advance.

e. Detailed coordination is necessary to insure that plans for the organization of the ground are carefully integrated with detailed fire plans and plans for the maneuver of forces, particularly the reserve. For maximum effectiveness, obstacles and barriers are covered by fire. Also, the construction of obstacles and minefields must not interfere with the freedom of maneuver of defensive forces.

190. Organization for Combat

a. The division plan for the defense includes a detailed organization for combat to implement the scheme of defense. The allocation of forces to the major tactical groupings may be shown in the task organization portion of the operation plan (order).

b. The commander attaches combat elements to the major subordinate commands in the proportion best suited for accomplishment of the mission. Combat support and administrative support elements are then placed in support or attached as necessary. Elements are provided to the security forces, to units in the forward defense area, and to the reserve. Forces not so allocated are placed under the control of the division support command or are retained directly under division control.

- (1) In the mobile defense, minimum essential forces are allocated to units in the forward defense area. These forces may be primarily infantry heavy. The reserve, as the

principal element of the defense, is normally tank heavy and as strong as possible.

- (2) In the area defense, priority is given to forces for the forward defense area where the bulk of the combat power is used. The reserve is provided sufficient strength to insure continuity of the defense.
- (3) The covering force or general outpost may be organized with a brigade, a battalion task force, or the armored cavalry squadron as the control headquarters. Additional combat and combat support elements are attached as needed.
 - (a) *Covering force.* The covering force is organized by the division to detect enemy approach, defeat him if possible, delay and disorganize his advance, and deceive him as to the location of the defense area. It is primarily adaptable to the mobile defense but may also be employed in the area defense. The covering force may be a brigade, the armored cavalry squadron, or a battalion task force reinforced as required. Within the division, the armored cavalry squadron is particularly well suited to this type mission but may require additional artillery, engineer, and aviation support.
 - (b) *General outpost.* A general outpost (GOP) may be used if the mission, terrain, and forces available so dictate. Its use is often preferred in infantry operations. A GOP differs from a covering force in that it operates closer to the main force (normally within supporting artillery range) and it depends less upon mobility and firepower afforded by combat vehicles to accomplish its mission. It is primarily used in the area defense but may be used in the mobile defense. When used in the mobile defense, the GOP must be afforded combat vehicle transportation.
 1. The missions of the GOP are to warn of the enemy's approach, to delay and disrupt the enemy, to deceive him as to the defensive plan, and to inflict maximum casualties on the enemy. Elements of the GOP may be designated as stay-behind parties to collect intelligence information and to direct fires.
 2. The composition of the GOP varies according to its mission, the area of operations, relative combat power of opposing forces, and enemy capabilities. It is normally a combined arms force. Its mobility is at least equal, and should be superior to that of the enemy.

3. The GOP accomplishes its mission by observation and fires at relatively long ranges, by aggressive patrolling and reconnaissance, by delaying action and deception measures, and, when necessary, by engaging in close combat. In general, it seeks to avoid decisive engagement.

c. In most cases the division will be involved in another operation when given the mission to defend and will, consequently, have to reorganize. Time to establish the defense is usually limited. To avoid unnecessary changes and shifting of units, the following should be considered :

- (1) Initially only minimum essential changes should be made to the existing organization of major subordinate units.
- (2) Shifts of tank and infantry elements between brigades normally should be by battalion or battalion task force.

d. The armored cavalry squadron may be used in the security echelon, along the forward edge of the battle area (FEBA) as part of the forward defensive forces to provide security for division flanks or within the division area, or as part of the reserve. However, its use as division reserve is not normal. When the squadron is committed along the FEBA, it may be attached to one of the brigades in the forward defense area; however, it is capable of occupying a sector independently as an economy of force measure.

e. Engineers may be attached or placed in support of the brigades. Normal support is one engineer company for each brigade, although this is varied to meet specific requirements. Engineers with the covering force or GOP are normally attached. The engineer battalion, less elements attached to major subordinate units, is kept under division control.

f. Artillery is normally retained under division control with light artillery battalions placed in direct support of major subordinate units in the forward defense area. Attachment is made when centralized control is not possible or desirable. Artillery with the covering force or GOP normally represents all calibers available to the division to aid in deceiving the enemy. It is usually attached because of the distance from the forward defense area. Artillery not in direct support of forward defense forces or attached to security forces is given a mission of general support (GS), GS reinforcing, or reinforcing. Nuclear delivery means furnish general support to the division as a whole, although elements may be attached to the covering force or GOP. Provision is made for artillery support to the reserve when committed.

g. For organization of administrative support units, see FM 54-2.

191. Control Measures

a. Control measures used in the basic defense plan include the trace of the FEBA, boundaries, coordinating points, fire control measures, and designated assembly areas for the reserve (figs. 16 and 17). Additional control measures used in the counterattack are discussed in paragraph 194.

b. The FEBA is shown on the map or overlay as a dashed line connecting coordinating points and represents the general trace of the forward edge of forward defense areas. When corps designates the defense sector, the FEBA will be tied into coordinating points established by corps. The FEBA should be located to take advantage of natural obstacles in the area and frequently is located along a suitable barrier such as a river line.

c. The division commander designates boundaries to define responsibility for major subordinate units. When the division commander desires to indicate an area responsibility for the forces in the forward defense area, rear boundaries will be designated. Boundaries are extended forward to the range of direct support fires or limits of ground observation, whichever is greater, and indicate the foremost limit of territorial responsibility. Rear boundaries, when designated, must provide sufficient area to permit adequate maneuver and dispersion of the forward defense forces. In establishing boundaries, responsibility for each major avenue of approach is assigned to a single major subordinate unit.

d. Coordinating points are designated on boundaries as specific points for coordination of fires and maneuver between adjacent units. Coordinating points are indicated whenever a boundary crosses the FEBA.

e. The division controls the general location of the reserve by designating its assembly area or areas. For discussion of the location of the reserve in the mobile and area defense, see paragraphs 196 through 205.

192. Combat Support

a. *Fire Support.*

- (1) The division prepares extensive fire plans to support the scheme of defense to include provision for long range fires to engage the enemy as early as possible and fires in direct support of the defending forces. Specific provision is made to furnish close fire support to the security

forces, the forward defense forces, and the reserve in the execution of counterattacks.

- (2) Field artillery units are located within the defense area so that fires may be massed on likely avenues of approach and areas to be denied the enemy. Artillery with the covering force or GOP is usually attached because of the distances involved. However, the remainder of the artillery is normally under centralized control and is attached when centralized control is not possible.
- (3) In planning for use of nuclear weapons, it is necessary to determine early in the planning stage the number of weapons to be employed on targets of opportunity or preplanned targets forward of the FEBA including the number needed to create and maintain fallout patterns, and the number of weapons to be retained to support counterattacks. Delivery means must be available and properly located to deliver these fires as needed. In the mobile defense, the bulk of the weapons are normally held for the support of counterattacks.

b. Air Defense.

- (1) The division may be provided with air defense units by army or corps or may derive protection by air defense weapons in or near the division area.
- (2) When attached, air defense artillery is normally retained under division control and used to provide area defense with priority to the division reserve, division troops, nuclear delivery means, support command, and critical areas along the FEBA.

c. Engineer Support.

- (1) The primary combat support missions of the division engineers in the area defense are to increase the defensive capabilities of combat troops in organizing the ground and preparing defense positions and to assist the movement of reserves in the counterattack. Engineers prepare important demolitions, lay minefields, and prepare and maintain routes. The division engineer assists in the formulation of the overall barrier plan and its implementation.
- (2) The primary combat support mission of the division engineers in the mobile defense is to increase the mobility potential of the counterattack forces. Engineers prepare important demolitions and prepare and maintain routes. Although extensive barrier plans are seldom used, the

engineer assists in the formulation of the overall barrier plan and its implementation.

- (3) When authorized, ADM may be used to deny specific areas and strengthen the position. Engineer responsibilities for ADM are indicated in paragraph 76.
- (4) When the requirement for engineer support within the division exceeds the capability of the organic engineer battalion, additional engineer support must be requested from the next higher headquarters. In the defense, such nondivisional engineers are normally placed in support of the division rather than attached.
- (5) For more detailed information see FM 5-135 and FM 5-136.

d. *Signal Support.* See paragraphs 77 through 80.

e. *Chemical Support.*

- (1) Detailed plans are prepared to insure that the use of chemical agents is closely integrated with other fire plans, barrier plans, and the scheme of defense.
- (2) Toxic chemicals may be used in support of forces along the FEBA, on enemy forces concentrating for an attack, and to support the reserve in the execution of counterattacks. Chemical concentrations can be used effectively to assist in destroying, canalizing, or containing the enemy along major avenues of approach or to contaminate key terrain or likely enemy assembly areas. When toxic chemicals are authorized, it is normal to integrate chemical mines into high explosive minefields to increase their obstacle value and to make clearance more difficult.
- (3) Smoke can be used to obscure operations from the enemy by blinding enemy observation posts and by hindering enemy aerial observation and tactical air operations within the defense area. Smoke must be used with caution, however, so as not to block essential observation by the defending forces.
- (4) Since the division has no organic chemical units, large scale use of chemicals in the defense will require support by higher headquarters.
- (5) For more detailed discussion on chemical support see paragraphs 87 and 88; FM 3-5; and TM 3-200.

f. *Military Police.* In the defense, the division military police company normally operates under division control. The greater part of the military police effort must be devoted to planning and

enforcing traffic control measures. PW normally are not as great a problem as they are in offensive operations and one central PW collecting point is usually sufficient.

g. Army Aviation.

- (1) Use of the organic aviation in the defense is similar to its use in other types of operations (pars. 81-84). The division aviation battalion provides general support to the division for aerial observation, reconnaissance, and surveillance; radiological monitoring and survey; limited transportation and supplemental aeromedical evacuation; and command liaison.
- (2) The division aviation battalion normally remains under division control. Flight elements may be placed in support of subordinate units. Flight elements with the security forces may be attached.
- (3) The reconnaissance and surveillance function is particularly important in the defense. Constant surveillance of the battle area is essential in obtaining early and continuous information of the enemy to include target acquisition and verification and evaluation of potential targets.

193. Administrative Support

a. Particular consideration is given to the location and security of the division support area, supply and evacuation of combat elements, and traffic control within the division area.

b. In the defense, administrative support facilities are usually located farther to the rear than in offensive operations. This avoids possible interference with tactical operations and undue congestion in the forward areas. It also offers less chance of damage or destruction of the administrative support facilities in event of an enemy penetration. Nevertheless, the support command units must be located sufficiently close to the combat elements to provide proper support. The location must provide sufficient space for operations and dispersion and permit a reasonable degree of security. The division support command headquarters normally operates from the forward edge of the division support area.

c. Defensive operations are usually characterized by relatively heavy expenditures of ammunition (class V) and light expenditures of fuel and lubricants (class III). In the mobile defense, however, the expenditure of class III supply may become heavy because of the maneuvering of both the forward defense forces and the reserve.

d. Plans are made for supply and evacuation routes including alternate supply routes. The location of the MSR is carefully coordinated to insure it does not interfere with the maneuver of forces conducting the defense. Measures are taken to control traffic within the division area, particularly traffic entering the forward defense area.

e. Normally a forward support company from the maintenance battalion, a medical company, elements of the supply and transportation battalion, a graves registration element, an engineer water supply team, and a signal element are placed in support of each brigade. These units provide administrative support on an area basis. The support command units normally perform their functions under control of their parent organization rather than by attachment to brigades. Division support command units, with the exception of those elements located in the brigade trains area, are located in the division support area.

f. For further discussion of administrative support see chapter 4, and FM 54-2.

194. Counterattack Plans

a. The counterattack is a basic and essential part of the defense. Counterattack planning is started early and developed concurrently with other phases of defense planning. The conduct of the counterattack varies somewhat with the form of defense being conducted, but planning techniques in both the mobile and area defense are essentially the same.

b. Counterattack plans are prepared, as a minimum to counter an assumed major penetration on each principal enemy avenue of approach. The priority for the preparation of these plans is based on the effect each penetration will have on the division mission.

c. Basic counterattack plans are prepared by division and disseminated to all lower echelons in sufficient time to permit detailed planning by subordinate commanders. Detailed counterattack planning is the responsibility of the reserve commander to include reconnaissance, selection of routes, determination of time and space factors, and coordination with elements of the forward defense forces.

d. The division counterattack plan will normally include:

- (1) *Assumptions*. This includes the assumed penetration itself and other necessary assumptions such as the strength of the enemy in the penetration and location and status of the reserve.

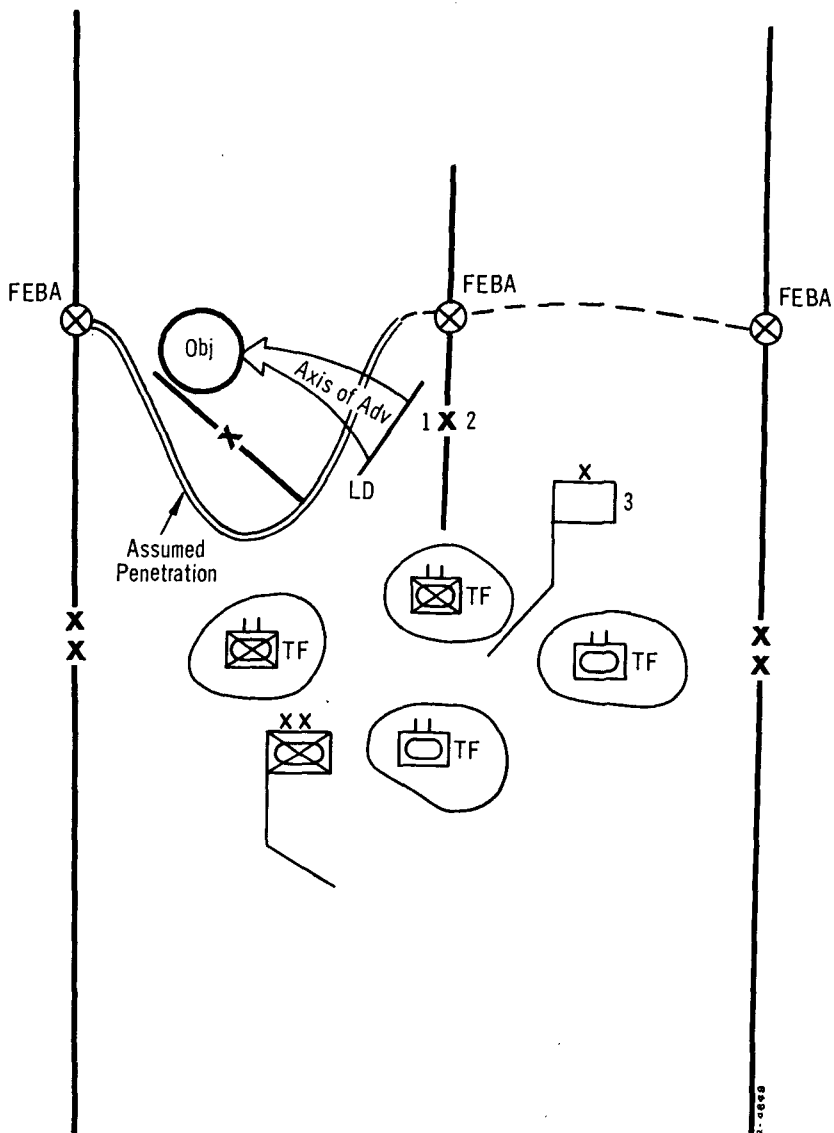


Figure 18. Division counterattack plan (overlay portion), mechanized division, mobile defense.

(2) Control measures (figs. 18 and 19).

(a) *Line of departure (LD)*. For planning purposes the LD may be used if it will contribute to the success of the counterattack; however, a counterattack generally is made from an assembly area. The LD is usually along a recognizable terrain feature close to the edge of the assumed penetration. However, for execution the

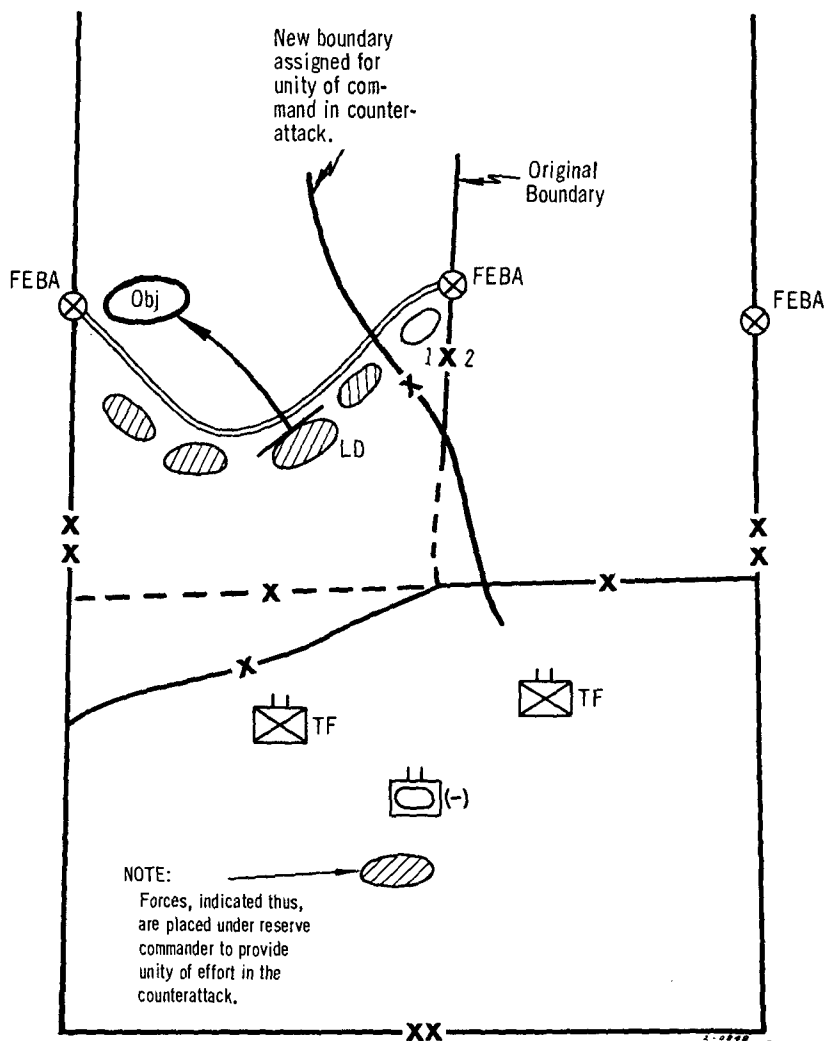


Figure 19. Division counterattack, infantry division, area defense.

- LD is designated as friendly forward dispositions (FFD).
- (b) *Objective.* The objective is habitually the enemy force.
 - (c) *Direction of attack—axis of advance.* When required, a direction of attack or axis of advance is shown from the line of departure into the objective and indicates the direction in which the reserve is to attack (par. 137).
 - (d) *Boundaries.* Boundaries may be used in the counter-

attack when additional control is needed. Such boundaries assist in controlling the passage and maneuver of the counterattacking force and in controlling fires during the counterattack. Units of other forces within the boundaries of the counterattack force are given missions of direct support until passed through or, when required, may be attached to the counterattack

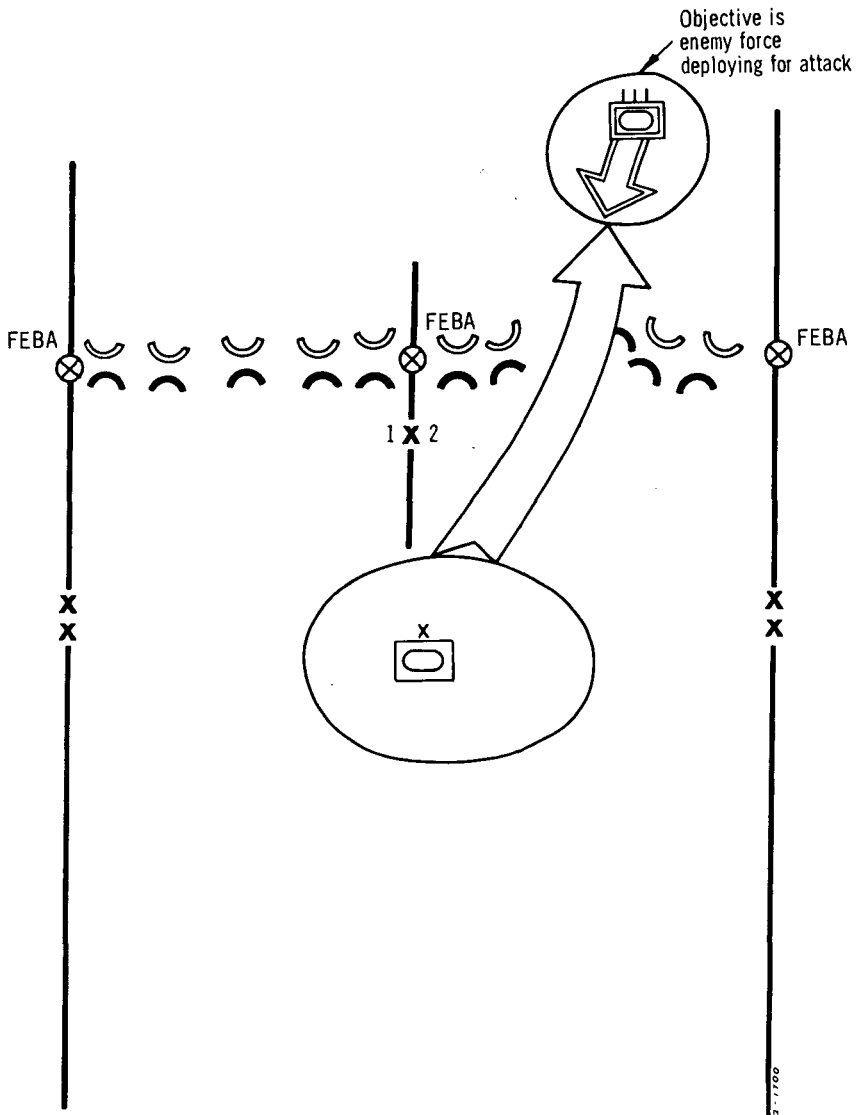


Figure 20. Division spoiling attack, armored division, mobile defense.

force. If the counterattack force is to have responsibility for areas under friendly control prior to passage, the boundaries must be extended from the edge of the penetration into the friendly area (figs. 18 and 19).
19).

- (3) *Organization for combat.* Provision is made to furnish the counterattack force with artillery support upon execution of the counterattack plan and to reconstitute a reserve.
- (4) *Orders to major subordinate units.*
- (5) *Fire support.* Detailed fire support plans are prepared for each counterattack plan. Nuclear fires are planned for each likely area of enemy attack in front of, or within, the battle area. The number of nuclear weapons tentatively allocated to support each counterattack is normally specified in the plan.

e. The success of a counterattack depends on the ability of the commander and staff to visualize all possible situations that might exist and, when the enemy attack occurs, to select a suitable course of action to defeat it. Basic counterattack plans must be highly flexible so that they can be modified to meet the actual situation. The actual counterattack will probably be a variation of one of the counterattack plans. Particular consideration must be given to the possibility of multiple penetrations, and each plan will include preparatory instructions to the counterattack force to cover the eventuality of minor penetrations which may occur simultaneously with a major penetration.

195. Spoiling Attacks

Plans for defense should include spoiling attacks to impair or delay enemy attacks. The spoiling attack, normally forward of the FEBA, is launched against enemy forces which are forming or assembling for an attack (fig. 20). Nuclear weapons, including the use of radioactive fallout, may be employed in conducting spoiling attacks.

Section V. MOBILE DEFENSE

196. General

a. The mobile defense is a method of defense whereby minimum forces are deployed forward to warn of impending attack, to canalize the attacker into less favorable terrain, and to block and impede the attacker; and a strong mobile reserve is maintained in the rear to counterattack and destroy the enemy at the most appropriate time and place (figs. 21 and 22). In general, the for-

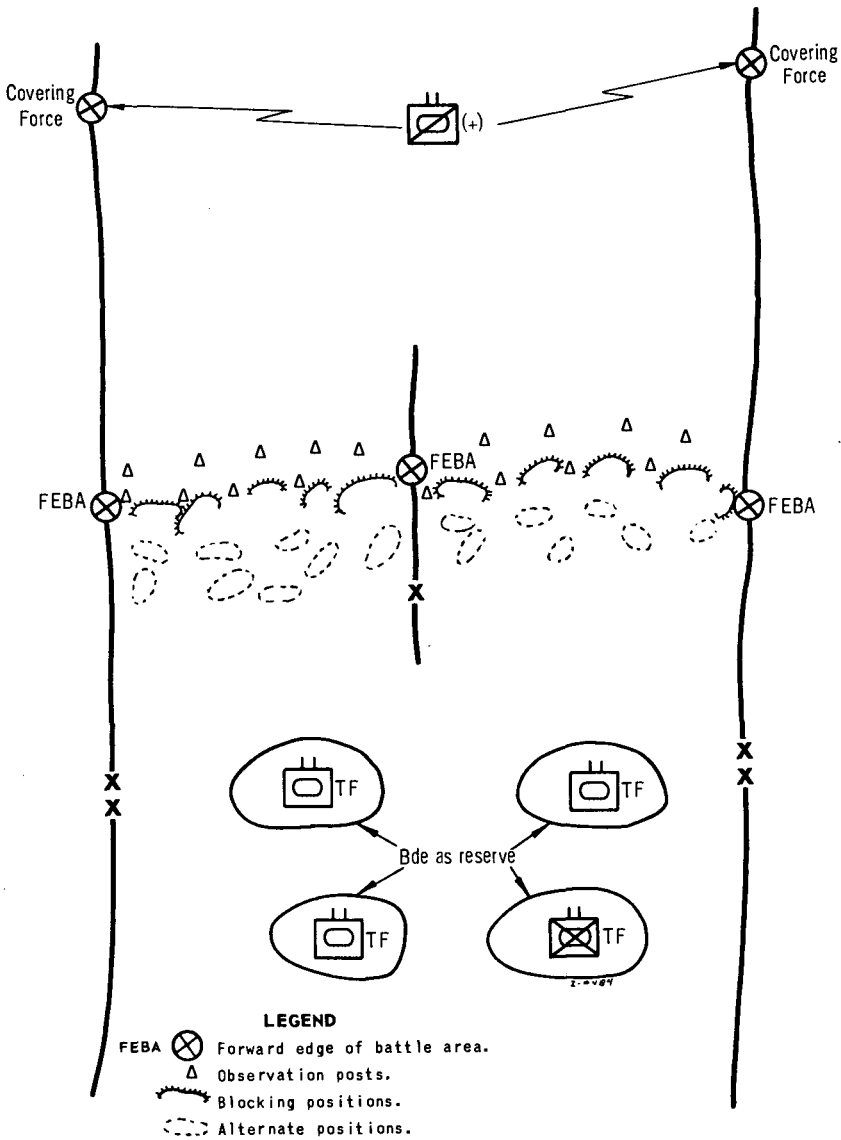


Figure 21. Example of mobile defense.

ward defense forces use a combination of decoy, defense, and delaying action together with limited offensive actions, while the reserve attacks as the decisive element of the defense (fig. 23).

b. This is the preferred form of the defense on a wide front for the armored and mechanized divisions since it permits maximum use of offensive mobile combat power to destroy the enemy. The reserve has a higher priority for forces than do the forward

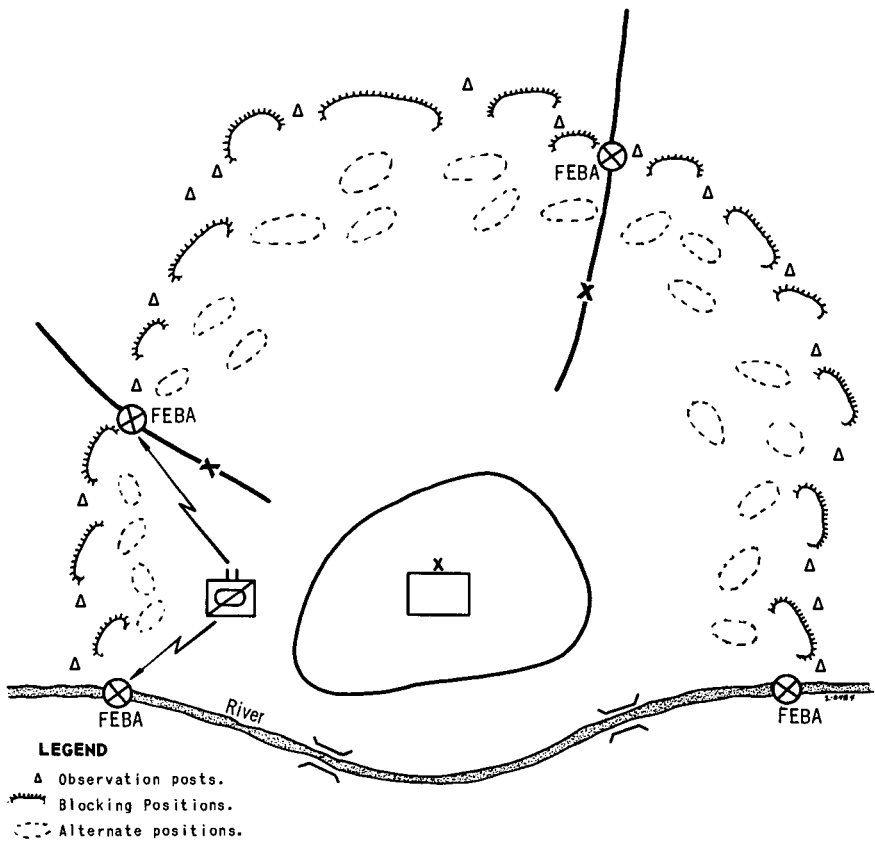


Figure 22. Example of mobile defense of a bridgehead without a GOP.

forces as it is the key to successful execution of the defense. Factors which affect the commander's choice of this form of defense are covered in paragraphs 187 through 195.

c. Normally the division is the smallest element capable of conducting a mobile defense because of the need for a strong reserve capable of executing a decisive counterattack.

197. Planning the Mobile Defense

a. Detailed planning considerations for the mobile defense are discussed in paragraphs 187 through 195.

b. The plan provides for the best use of available means to accomplish the defensive mission. It provides for security forces, a fixing force along the FEBA, and a strong reserve. Fires, including nuclear fires, are planned in detail to support the scheme of defense.

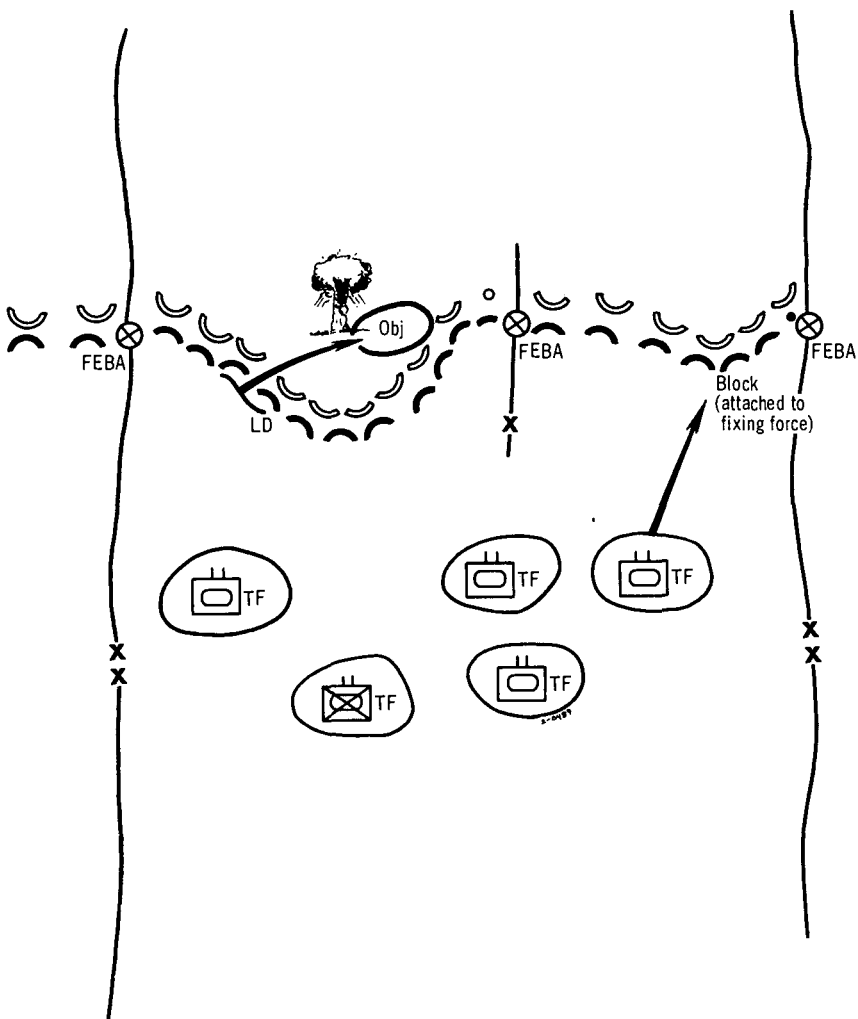


Figure 23. Armored division counterattack.

- c. The division operation plan (order) should include—
- (1) Composition and location of the covering force or general outpost, when used.
 - (2) Location of the FEBA.
 - (3) Boundaries and coordinating points.
 - (4) Location of the reserve.
 - (5) Organization for combat.
 - (6) Missions to major subordinate units.

- (7) Fire support plan (includes planned use of nuclear weapons and chemicals, normally issued as an annex to the operation plan).
- (8) Barrier plan (normally an annex to the operation plan).
- (9) Counterattack plans (normally issued as separate plans but referenced to the basic operation plan).
- (10) Communication plan.

d. Counterattack plans are prepared as outlined in paragraph 194. Division issues the basic plans and detailed plans are prepared by the reserve commander. Counterattack planning is a vital part of planning the mobile defense. The basic concept of the defense relies on the successful execution of counterattacks to insure the successful conduct of the defensive battle.

198. Organization of the Mobile Defense

a. General.

- (1) In organizing the division for the mobile defense, forces are provided for security, for fixing the enemy in the forward defense area, and for destruction of the enemy by offensive action.
- (2) The division commander designates the general trace of the FEBA, the initial location of the covering force or general outpost, if any, and the location of the reserve. However, the defense sector itself may be specified by higher headquarters through the designation of division boundaries and coordinating points along the FEBA.

b. Security Forces. Security forces used in the mobile defense may include the covering force or GOP, combat outpost, observation posts, listening posts, patrols, and rear area security forces.

(1) *Covering force.*

- (a) For organization, mission, and employment of a covering force, see paragraph 190*b*(3)(a).
- (b) When the division executes a mobile defense as part of a corps defense, the covering force normally will tie into the covering force or GOP of adjacent divisions. When the division is operating independently, the covering force normally will be located some 8 to 25 kilometers in front of the FEBA, but may be farther to the front when terrain makes this desirable.

(2) *General outpost.* For composition, mission, and employment of a GOP, see paragraph 190*b*(3)(b).

(3) *Defense.* A covering force is used in the mobile defense whenever possible, but a GOP may be employed when

required. When the division establishes the defense while heavily engaged, neither a covering force nor a GOP can be employed.

- (4) *Observation posts and patrols.* The mobile defense normally is carried out on an extended frontage and gaps exist between forces occupying blocking positions or strongpoints. Observation and listening posts are established forward of, between, and to the rear of these strongpoints to provide early warning of enemy approach and to adjust supporting fires as necessary. Mounted and dismounted patrols are used between strongpoints and observation posts to prevent or detect infiltration and to maintain surveillance over assigned areas. Observation posts, listening posts, and patrols in the forward defense area are organized and controlled by the major subordinate units along the FEBA.

c. Fixing Forces. The fixing forces are those elements located in the forward defense area. They are organized to carry out their basic mission of warning of impending attack, delaying, disorganizing, inflicting maximum damage, and canalizing the enemy into areas suitable for counterattack. Division designates the trace of the FEBA and responsibility for major subordinate units along the FEBA by specifying the location of brigade boundaries and coordinating points.

- (1) The division usually uses two brigade headquarters to control the fixing forces. This is necessitated by the basic requirements for control and communications over the wide area normally covered in the mobile defense. In some cases, however, the defense may be established with a relatively narrow sector permitting use of only one brigade to control the entire fixing force.
- (2) The fixing force commanders organize their areas by establishing blocking positions or strongpoints, augmented by observation and listening posts and patrols. The positions are areas organized for all-round defense by elements varying in size from a company to a battalion task force. They are organized to control key terrain which dominates avenues of approach or are located to canalize attacking forces. Alternate or successive positions are designated in depth. Because of the limited forces in the forward area, blocking cannot be initially occupied in depth.
- (3) The fixing force is allocated the minimum essential forces to carry out its mission. It normally is infantry heavy.

d. Reserve. The reserve is organized to destroy the enemy by offensive action and must be prepared to conduct counterattacks whenever the enemy presents a suitable target. The reserve in the mobile defense is the strongest element of the division and is given priority in the allocation of forces.

- (1) The location of the reserve normally is designated by division. It is located in dispersed areas, but is capable of moving rapidly to areas of probable commitment.
- (2) One brigade headquarters normally is designated to control the reserve.
- (3) The reserve normally is organized tank heavy for maximum combat power and mobility when the nature of the terrain and the availability of tank units permits.

e. Organization of the Ground. The defense is organized to take maximum advantage of the terrain. Since the effectiveness of the division in the mobile defense depends on its ability to maneuver subordinate elements rapidly, the preparation of counterattack routes and routes between alternate positions assumes a high priority. Defensive positions are strengthened as time permits by obstacles and minefields. Care is taken, however, that they do not interfere with the freedom of movement of the fixing forces and the reserve (par. 189).

f. Fire Support. In conjunction with the organization of the ground, fires, including nuclear fires, are planned in detail. These are integrated into the overall scheme of defense (par. 190).

g. Organization for Combat.

- (1) After designating the control headquarters for the covering force or GOP, the fixing forces, and the reserve, the division commander attaches tank and infantry units to the brigades in the proportion best suited to the accomplishment of the mission.
- (2) For use of armored cavalry, artillery, engineers, and aviation in the mobile defense, see paragraphs 190 and 192.
- (3) For use of administrative support elements, see paragraph 193 and FM 54-2.

199. Conduct of the Mobile Defense

a. Success of the mobile defense depends to a large degree on timely and accurate information of the enemy and the ability of forces within the defensive area to move rapidly. A continuous and aggressive intelligence collection effort is essential in determining the probable strength, composition, direction, and time of

an enemy attack. Positive and effective communications must exist throughout the division so that information and instructions can be transmitted without delay. All units must be constantly prepared to move rapidly to support the scheme of defense.

b. Other than aerial reconnaissance, the covering force or GOP is normally the first element of the division to gain contact with advancing enemy forces. The covering force or GOP reconnoiters to establish and maintain contact, and once contact is gained, a continuous flow of information on the enemy action is provided the division commander. As enemy strength is developed, the covering force or GOP conducts a delaying action, inflicting maximum casualties and delaying and disorganizing the enemy as much as possible. It attempts to deceive the enemy as to the location of the forward defense area. The covering force or GOP avoids decisive engagement with the enemy but maintains contact until it is withdrawn through the fixing forces on division order. The elements of the covering force or GOP are then assigned other missions as appropriate.

c. Once the covering force or GOP has been withdrawn through the FEBA, the battle is picked up by the fixing forces. As the enemy comes within range, maximum supporting fires are delivered to slow and disrupt his attack. As contact is gained, the commanders of the fixing force initiate action to stop, repel, contain, or disorganize the enemy. If the attack cannot be effectively stopped or contained, then action is taken to canalize the enemy. This sets the stage for the counterattack.

d. Successful accomplishment of the fixing force mission requires a combination of holding ground, delaying, and containing. The fixing force commander must retain mobility and must carefully control the operation in the forward area. In general, units in danger of being overrun are ordered to move to alternate or successive positions, and as the enemy pressure increases, the fixing force may be forced into a delaying action using alternate or successive positions selected in depth. However, some units may be ordered to hold on specific terrain, being bypassed if necessary, to cause canalization of the attacking forces. Other bypassed units may be employed aggressively by operating in the enemy's rear and destroying the impetus of his attack.

e. With the relatively light fixing forces in the mobile defense, it is anticipated that a strong and determined enemy can penetrate the forward area. This is expected. At the appropriate time, the division launches a strong counterattack using the reserve supported by nuclear weapons and all other available fires to destroy the penetration.

200. Counterattack in the Mobile Defense

a. The counterattack by the reserve has as its primary mission the destruction of the enemy force (fig. 23).

b. When the division commander commits the reserve, it is with the knowledge that the division is decisively engaged and, for a period of time, he will not possess a major troop reserve. Therefore, the decision to execute a division counterattack must be based on a reasonable chance for success. Once the reserve is completely committed, the division commander will use any available units to form a new reserve.

c. Although penetrations are expected and planned for in the overall defense planning, it is unlikely that the development of the action will correspond to the prepared counterattack plans. However, as the situation develops, the basic questions the division commander must answer are these:

(1) When and where to counterattack?

(2) In the event of more than one penetration, which should be attacked and which should be blocked or contained?

d. The counterattack is launched with the full power of all available resources. Among other things, success depends on determination, surprise, speed, and boldness. To meet a major threat, the entire reserve is committed and all available fires, including nuclear fires, are used to support the attack.

e. The most difficult decision to make is when to execute the counterattack.

(1) It is not launched as an automatic reaction to an enemy penetration, nor is the reserve committed solely by virtue of the enemy reaching a certain phase line or area. It may be launched when the enemy presents his flanks or rear, when he becomes over extended, or when his momentum is dissipated. The commander must have a continuous flow of accurate information on the current situation and enemy forces. He must know the condition of the fixing forces, whether or not they can contain enemy forces in the penetration, and for how long. He must know how long it will take the reserve to attack. He must know the power and rate of the enemy advance, and the enemy reinforcing capability. To this, he must add his knowledge of enemy tactical doctrine and procedures.

(2) Ideally the counterattack is made when the enemy attack has been slowed, stopped, or disorganized. However, these conditions are not essential prerequisites for the

counterattack. A counterattack should be launched prior to the time that the attacking enemy can consolidate his gains and reorganize or regroup his forces. A spoiling attack should be launched while the enemy is in his attack position.

f. In the event multiple penetrations have occurred, it may be necessary to deal with these penetrations simultaneously. In such cases, determination is made as to which penetration poses the greatest threat to the division. The reserve is committed to destroy the major threat, while sufficient force is applied to contain the other threats. It may be necessary to detach a portion of the reserve and attach it to the fixing force, or to allocate nuclear weapons, or a combination of both to assist in containing secondary threats.

g. The penetration is usually attacked on the flank. This offers the best chance of cutting off the enemy, disrupting his attack, and destroying him in place. The counterattack normally will be based on one of the existing counterattack plans modified as necessary to fit the actual situation. Consideration of time space factors and the terrain, including obstacles and routes of approach, has a major bearing on where to commit the reserve.

h. When the division conducts a counterattack in the mobile defense, it does not necessarily attach troops of the fixing force to the reserve. The mission of the fixing force is to block, delay, and canalize the enemy. After the passage by the reserve, the mission of the fixing force may remain unchanged. The reserve has the mission of destroying the enemy in the penetration and should not have responsibility for command of fixing forces used in the blocking role.

i. Tactical air support is important in insuring freedom of movement for the reserve. Ideally, local air superiority should be achieved to prevent enemy air interference with the counterattacking force and to disrupt and delay any additional movement of enemy reinforcements into the penetration.

j. Nuclear support should be provided for the counterattack. The use of nuclear means is part of the basic decision by the commander on the employment of his forces. Nuclear fires should be used to facilitate the action of the reserve in destroying the enemy in the penetration; they may be used to protect the flank of the reserve and to prevent enemy reinforcement of the penetration during the counterattack; they may be used to help contain a secondary penetration. Nuclear weapons not employed to support the counterattack provide an additional division reserve to

meet contingencies during the period the troop reserve is committed

k. Even against the strongest penetrations, the division can best gain time for employment of the corps reserve by counter-attacking. However, in the case of strong enemy penetrations, the division commander must consult the corps commander before committing all of his reserve in a major counterattack.

Section VI. AREA DEFENSE

201. General

a. The area defense requires the retention of specific terrain for a period of time. Primary reliance is placed on fires and forces deployed on position to stop and repulse the attacker. It may not be possible or advisable to physically occupy all key terrain in the defended area, but sufficient combat power must be available to dominate the area. The forward defense area normally has a higher priority for forces than does the reserve. The reserve is employed to block and destroy the enemy, to eliminate penetrations if they occur, or to reinforce threatened areas.

b. Each type division organizes and conducts an area defense when specified by higher headquarters or when the mission requires the retention of specific terrain. This type of defense, however, does not normally make as effective use of the armored and mechanized division's mobile combat power as does the mobile defense.

202. Planning the Area Defense

a. Detailed considerations in planning the area defense are discussed in paragraphs 187 through 195.

b. The plan is evolved from a detailed reconnaissance of the area and an analysis of the situation to determine the most effective way to use the terrain and available resources. It provides for security forces, forward defensive forces disposed in depth, and a reserve. It indicates the location of the forward defense area, provides fire support to all defensive echelons, and provides for additional artificial obstacles and barriers to improve the natural defensive strength of the terrain.

- c.* The operation plan (order) will indicate the following:
- (1) Location of covering force or GOP when used.
 - (2) Location of FEBA and forward defense area.
 - (3) Location of reserve.
 - (4) Boundaries and coordinating points.

- (5) Organization for combat.
- (6) Missions to major subordinate units.
- (7) Fire support plan (normally issued as an annex to the operation plan).
- (8) Barrier plan (normally issued as an annex to the operation plan).
- (9) Counterattack plans (normally issued as separate plans but referenced to the basic operation plan).
- (10) Communication plan.

d. Counterattack plans are prepared as outlined in paragraph 194. The primary function of the counterattack in the area defense is to destroy or eject the penetrating force and to regain control of the battle area.

203. Organization of the Area Defense

a. The area defense is organized basically to provide security and prevent surprise, to stop and repel an enemy attack, and to destroy or eject a penetration of the defended area. Therefore, the commander provides for defensive echelons to include security forces, forces to organize and occupy the forward defense area, and a reserve.

b. The FEBA normally is designated by higher headquarters by establishing coordinating points. Coordinating points for the covering force or GOP are also normally designated by higher headquarters to insure coordination with adjacent units. Based on the mission and controls given to the division and a detailed reconnaissance to determine avenues of approach and key terrain, the commander designates defensive areas, establishes boundaries and coordinating points for major subordinate units, and designates the location of the reserve (fig. 24).

c. The division uses a covering force or GOP as appropriate. This force is initially positioned to take advantage of natural obstacles and to deny to the enemy ground observation of, and ability to deliver light artillery fire into the forward defense area. The covering force and GOP are described more fully in paragraph 190*b*(3).

d. The combat outpost is a security element of the brigade in the forward defense area. It is located to provide timely warning of the enemy's approach and to deny the enemy close ground observation and direct fires into the forward defense area. Its location permits support by fire from within the brigade. The division commander prescribes the general location of combat outposts to

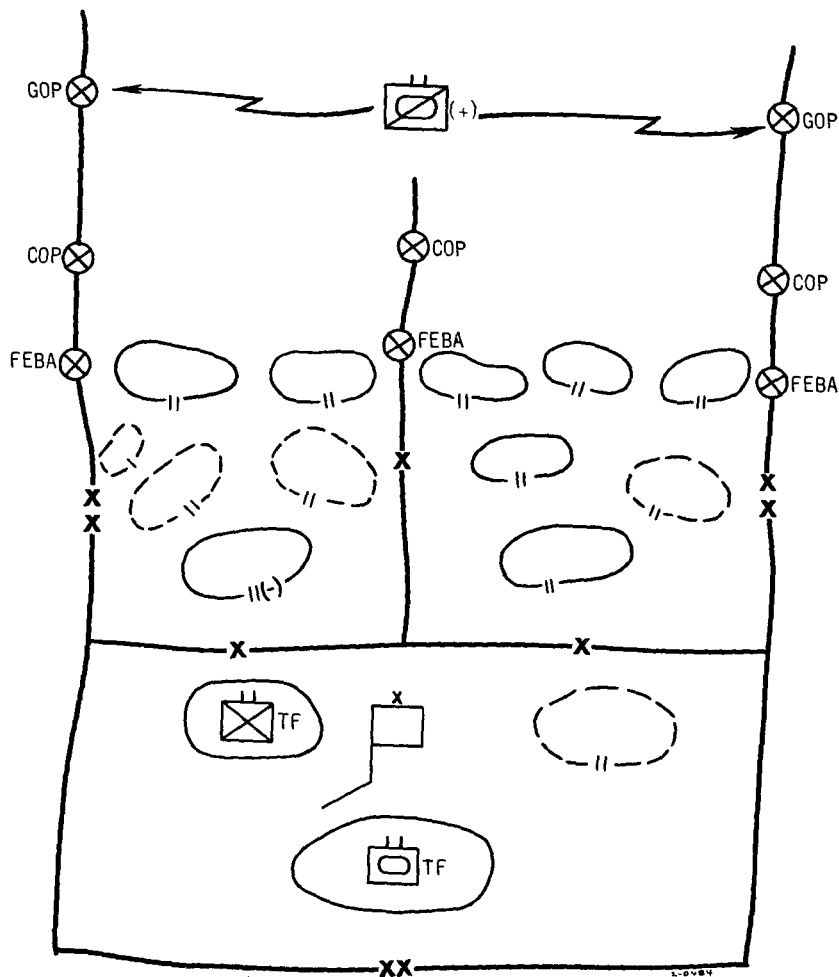


Figure 24. Organization of area defense by the infantry division.

the extent necessary to insure the provision of security across the division front.

e. The forward defense area is organized into a series of defensive areas which provide good observation and natural defensive strength. Positions are prepared to block avenues of approach at the FEBA and in depth to control the area. The bulk of the division's combat power is committed to defending the forward defense area, and most of the infantry is attached to the brigades in the forward defense area. The natural defensive strength of the terrain is increased as time permits by the use of artificial obstacles, fortifications, and barriers.

f. 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 to destroy enemy penetrations, by reinforcing forward elements, or by executing blocking missions.

g. Use of combat support elements in the area defense, including artillery, engineers, and Army aviation, is discussed in paragraphs 190 and 192.

204. Conduct of the Area Defense

a. The attacking enemy normally is taken under long range fire as early as possible unless deception is an essential element of the defense. As the enemy advances he is then taken under fire by elements in the security area. These security forces warn of enemy approach, deceive him as to the location of the FEBA, and execute maximum disruption and delay without becoming decisively engaged. They attempt to inflict maximum casualties on the enemy and to force him to deploy his main forces prematurely.

b. In the area defense, emphasis is placed on blocking avenues of approach at the FEBA and defending in depth to hold the terrain. Forces in the forward defense area exert every effort to halt the enemy. If the enemy penetrates the area, however, the forward defensive forces canalize him and force him into areas favoring counterattack.

c. The counterattack is the principal means of eliminating a penetration and restoring the integrity of the battle area.

205. Counterattack in the Area Defense

a. In the area defense the counterattack is used to destroy or eject an enemy force which has penetrated the defensive position, and thus regain control of the forward defense area.

b. Considerations involved in selecting the exact time and place for the counterattack are similar to those which apply to the mobile defense as discussed in paragraph 200. The counterattack is launched preferably 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. The counterattack must be launched before the enemy strength in the penetration becomes too great and while there is a reasonable chance of success.

c. Once launched, the counterattack is provided all possible support to insure success. It is provided priority of all available re-

sources. Once the enemy force in the penetration has been destroyed, the counterattacking force normally returns to its original or alternate positions as division reserve. However, it may be given the mission of occupying and defending the restored area.

d. If the enemy force in one or more penetrations is too strong to counterattack with a reasonable chance of success, the reserve may be used to contain or, if necessary, cover the withdrawal of troops in the battle area. However, any course of action which deviates from the mission requires approval or direction from higher headquarters. Whenever the division no longer has the capability of conducting a division counterattack, corps must be notified immediately.

Section VII. THE DIVISION IN THE CORPS DEFENSE

206. General

a. The same fundamentals apply to the corps in the defense as apply at lower echelons. The corps commander's principal concerns in organizing the defense include provision for security of the defensive area, organization of the battle area, composition and disposition of reserves, plans for counterattacks, and allocation of available means. The corps may conduct a mobile or area defense, but in a nuclear environment some variation of the mobile defense is favored. However, major subordinate elements may be engaged simultaneously in the mobile and area defense.

b. In the defense, the division may be used in one of three ways: as the principal element of the corps covering force, as corps mobile reserve, or to organize an assigned sector of the defense area (fig. 25).

207. The Armored or Mechanized Division as Corps Covering Force

a. Corps designates the general location and composition of the covering force. This covering force has the mission of delaying the enemy forward of the general outpost line for a specified period to provide time for the preparation of defensive positions, disorganizing attacking enemy forces as much as possible, and deceiving the enemy as to the location of the FEBA.

b. The armored and mechanized divisions ability to cover a wide area and conduct continuous delay makes them the most suitable division size units for the corps covering force in the defense, and when available, they normally are given this mission. As the covering force, these divisions should be given additional long range fire support means and an allocation of nuclear weapons as appropriate.

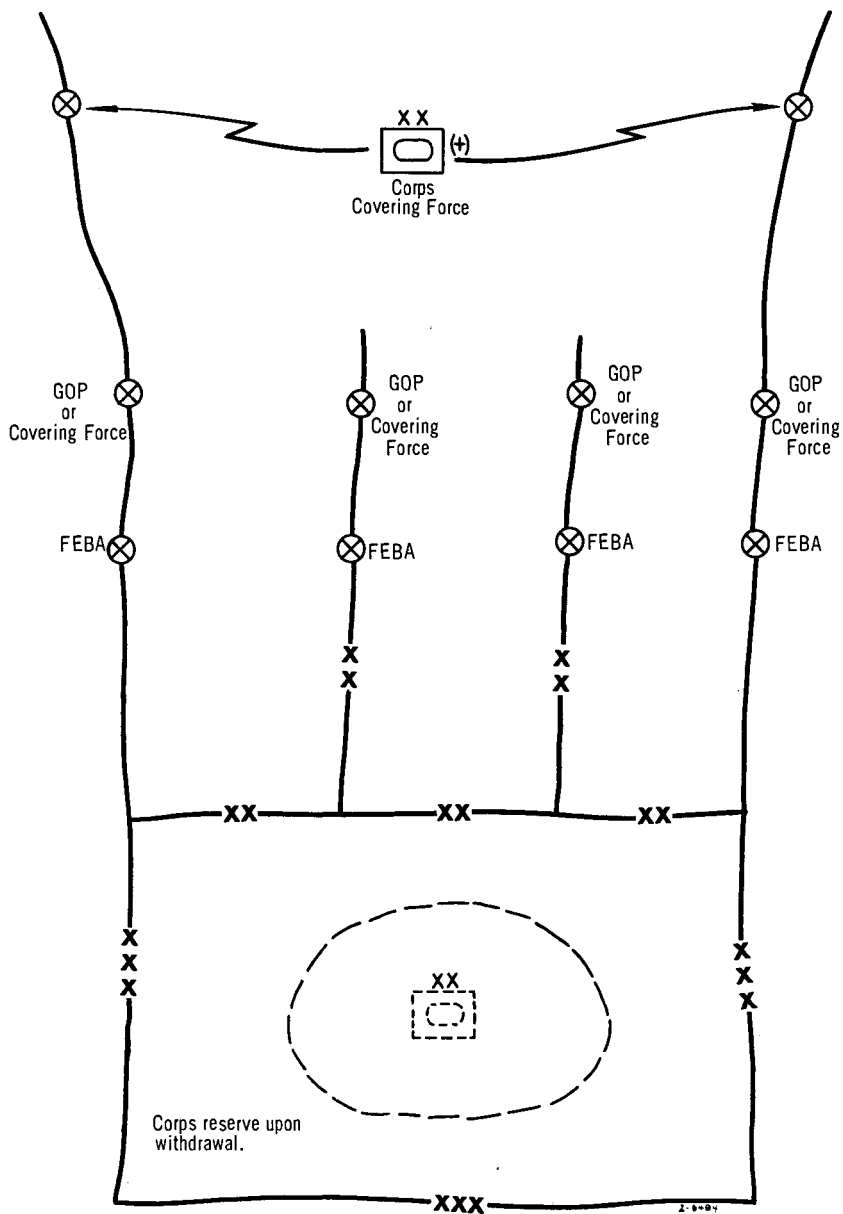


Figure 25. Example of corps organization for defense.

c. The covering force carries out its mission primarily by means of delaying action as discussed in paragraphs 225 through 231. Upon withdrawal of the covering force, these divisions normally are designated as corps reserve.

208. The Armored or Mechanized Division Assigned a Sector of the Corps Forward Defense Area

a. The armored division may be given the mission of organizing and defending a sector of the FEBA. This is not considered a normal mission for the armored division in the corps defense, however, as it is generally needed to provide the corps reserve or counterattack force. The armored division may be used in defending a sector when the corps is forced to go into the defense directly from an attack against enemy opposition. In this case, an armored division being employed forward in the attack could be given a sector of the FEBA. This would facilitate the organization of the forward defense area and avoid the complicated relief of a major unit in contact with the enemy.

b. When the armored division defends a sector, it generally uses the mobile defense or some variation, although it may be directed to use an area defense to conform to the corps defensive scheme.

c. The mechanized division is particularly effective as the fixing force for the corps mobile defense. However, it may be used in corps reserve if the corps does not have an armored division attached.

209. The Division as Corps Reserve or Counterattack Force

a. In the defense, the corps must provide for a suitable reserve. This normally is a combination of mobile combat forces and nuclear weapons. The armored and mechanized divisions are well suited to the mission of corps reserve.

b. As the corps reserve, the division is located in positions from which it can execute planned counterattacks. The same general criteria apply as for the location of the reserve at lower levels. It must be far enough to the rear so as not to interfere with the maneuver of the divisions in forward defense positions and not become involved in the battle until the desired time of commitment; it must be located for possible commitment to any portion of the corps area; and it must be provided with sufficient area for dispersion to avoid undue vulnerability to nuclear attack.

c. Counterattack plans are developed in detail by the counterattack force based on the general plans from corps. In the mobile

defense, the bulk of the nuclear weapons allocated to corps are normally used to support the reserve in the execution of counterattacks.

d. Major counterattacks are executed under corps control. The counterattack is launched when it will prove the decisive move in the engagement and must be based on a reasonable chance of success. Once the counterattack is initiated, it is carried out rapidly and violently, employing all combat power necessary to achieve success. The division executing the corps counterattack employs the principles of the attack as discussed in chapter 5.

Section VIII. SPECIAL DEFENSIVE CONSIDERATIONS

210. General

There is a constant threat of enemy armor, airborne, guerrilla, or infiltration actions within the division area, and plans must be prepared to counter such threats. Also the nature of the threat will often require locating or organizing mobile combat forces in the rear. Enemy action of this nature may be undertaken to simply harass the division and reduce its combat capability or may be used in conjunction with a major enemy attack. If the threat is of sufficient magnitude, it may endanger the accomplishment of the division mission and require the employment of major combat units. Effective security within the division area requires each unit and installation to plan, prepare, and rehearse for its own defense.

211. Defense Against Armor

a. Antitank defenses are planned to cover likely avenues of armor approach. However, no area can be overlooked for an aggressive enemy will employ armor over other than ideal terrain.

b. Early detection of enemy tank units is essential. Warning systems are established to insure that antitank weapons can be brought to bear on enemy armor and destroy it outside the area of friendly troop dispositions, preferably in the enemy tank unit assembly areas.

c. Maximum use is made of natural obstacles and antitank minefields as well as mobility and maneuver to facilitate the destruction of enemy armor by canalizing it into the fields of fire of antitank weapons. All antitank weapon systems including individual weapons, mines, tanks, artillery, and nuclear weapons are used. The antitank defense is established in depth throughout the defended area. Artillery fires, including chemicals, may be

used on tanks to destroy the crews and separate or destroy any accompanying infantry.

d. If enemy armor succeeds in overrunning forward areas, anti-tank weapons located in depth seek to stop further advance. Forces in forward areas remain in position to prevent enemy infantry from accompanying its armor and to destroy the enemy tanks. Reserve forces are then committed to destroy enemy forces in the penetration.

212. Defense Against Airborne Attack

a. Defense against airborne attack includes air defense measures, a warning system, troops available to defend likely airborne objectives, and mobile reserves.

b. Attacking airborne elements normally are dispersed during the initial phases and can be dealt with most effectively during the period before they consolidate and organize on key terrain. To insure rapid reaction to an airborne attack, prior planning, including detailed reconnaissance of the area to locate probable drop and landing zones, is necessary. Mobile reserves should be located within striking distance of these areas. Armor elements are especially effective against airborne forces, particularly during the early stages of their operation on the ground. A major problem is obtaining accurate information of the exact location and extent of the landings. To solve this, good observation throughout the area, an effective warning system, and good communications are essential.

c. Small scale enemy airborne operations may be handled by units or forces located in the rear area. Small scale attacks which threaten the security of the administrative support activities of the division are the responsibility of the support command commander as a part of rear area security. Combat elements, if available, may be provided to the support command commander to allow him to contain or destroy the enemy airborne unit. If local forces are not able to defeat the attacker, they form a base for counterattack by stronger reserves.

d. A large airborne attack is considered a part of the main battle and major combat forces are committed against it under direct control of division.

213. Defense Against Infiltration

a. Enemy infiltration is a constant threat, particularly when forces in the forward defense area are dispersed. Infiltration may be attempted as a means of disrupting operations and harassing

installations in the rear area, or the enemy may attempt massive infiltration as a basic form of attack. Plans to defend against infiltration are prepared as part of the overall defensive plan. Efforts are made to prevent infiltration. If infiltration is successful, plans provide for location and destruction of infiltrating enemy forces. Specific measures to aid in controlling infiltration include extensive counterreconnaissance, combat patrols, antipersonnel obstacles, warning devices, and electronic surveillance devices.

b. Danger of infiltration is particularly critical during execution of the mobile defense because of the relatively light forces in the forward defense area and the distances between strongpoints. To minimize this threat, constant surveillance between strongpoints is required. This will include the use of listening posts, observation posts, roadblocks, mounted and dismounted patrols between strongpoints, aerial reconnaissance, and electronic surveillance devices.

c. If the threat of attack by infiltration exists, it may be necessary to give a mobile combat force, such as the armored cavalry squadron, a primary mission of combatting infiltrating forces within the division area. Such forces maintain ground and aerial surveillance of likely infiltrator avenues of entrance into the area and of likely assembly or rallying points.

214. Defense Against Guerrillas

a. Guerrilla warfare refers generally to combat activities carried out by irregular forces, frequently in small groups. The purpose of such enemy activity in the division area might be to interfere with the movement of troops and supplies, to disrupt communications, or to divert attention and forces from the main battle.

b. Plans for defense against guerrilla activity are part of the division's overall plan for defense. Small scale attacks may be handled by units in the rear area with their own resources. Operations against small scale attacks which threaten administrative support activities are included as part of rear area security and are the responsibility of the support command commander. If the threat is of sufficient magnitude, combat forces may be provided the support command commander for protection of the division main support area and supply lines including escort of convoys.

c. Although it is seldom possible to divert major combat elements for protection within the division area, a serious guerrilla threat may require the use of mobile combat elements under divi-

sion control to combat guerrilla activities. Also, the division reserve may be alerted for possible employment in event of a large scale attack in the division rear.

d. For additional information on defense against guerrilla action, see FM 31-15, FM 31-21, and paragraphs 293 through 295.

215. Rear Area Security

a. The term "rear area security" refers to measures, except for active air defense, taken to neutralize or destroy localized enemy forces which constitute threats to units, activities, and installations in the rear areas.

b. The division rear area extends from the division rear boundary forward to the area of responsibility of the committed combat units of the division. Overall area responsibility rests with the division commander for the territory within his assigned boundaries. Possible conflicts, overlapping responsibilities, and delays are eliminated or minimized in the conduct of rear area security by assigning definite responsibilities to major subordinate commanders.

c. The security of the portions of the division rear area in which the administrative support functions of the division are conducted is the responsibility of the support command commander. Combat reserve forces, artillery units, and other combat support elements may at times be located in the division rear area. The areas occupied by these elements are the responsibility of the combat unit commanders concerned and are specifically excluded from the rear area security responsibility of the support command commander. Local security plans of these units will be coordinated with the support command commander.

d. The support command units train their own personnel for local security. Communication and warning systems are established and standing operating procedures are developed and practiced. Protection is provided for personnel and key activities. Operations are dispersed as necessary and defensive positions are prepared consistent with the effective execution of unit missions. In the event that rear area security requirements are beyond the capability of support command units in the area, combat units may be provided on a minimum essential assistance basis. These units, if provided, conduct reconnaissance, maintain surveillance over critical areas, patrol routes, and escort convoys. They may be used to reinforce units under attack or to destroy the enemy.

e. Combat and combat support units located in the division rear area are responsible for their own local security. Enemy

operations and threats which endanger the command as a whole become operational matters and are beyond the scope of rear area security operations.

216. Area Damage Control

a. The term "area damage control" refers to measures taken to avoid or minimize the effects of enemy mass destruction attack or natural disaster on administrative support operations.

b. Control and assessment teams (CAT) are organized by all division units. When a unit has been subjected to a nuclear or CBR attack, a team is sent to its location. The senior member of the team determines the operational effectiveness of the unit to which it has been sent, assumes control of the unit if required, executes area damage control operations, and takes action to resume the primary mission of the unit. The senior member of the CAT will estimate the type and number of casualties, the effective strength of the affected unit, and the loss of commanders if applicable. The senior member will submit reports through command channels by the most rapid means available.

c. The division support command commander is charged with the responsibility for detailed planning and execution of area damage control for the division. He is also responsible for the integration of area damage control plans into the overall division plan.

d. The division support command commander uses his staff, in coordination with representatives of G1 and G4, for detailed planning and coordination of area damage control for administrative support activities.

e. The division area damage control forces consist primarily of support command units and other designated units. Damage control teams from these units are used for area damage control functions in their own units. They may be used to reinforce other units or installations if warranted by the situation and directed by the support command commander.

f. The action taken to prevent damage and to establish readiness for dealing with attacks before they occur is of primary importance in area damage control operations. This includes planning, training, practice alerts, dispersion, and camouflage. If an attack occurs, the objective is to resume operations, which includes maintaining or restoring control, evacuating casualties, isolating danger areas, and reducing personnel and materiel losses. The following actions are taken: damage control teams are moved to the unit or installation attacked, radiological monitoring and survey are accomplished, damage is assessed to determine its impact on ad-

ministrative support, salvage operations are begun, firefighting plans and fire prevention is carried out, casualties are given first aid, evacuation is conducted, traffic and personnel movement control is established, decontamination is undertaken, bomb disposal is executed as necessary, emergency supplies are provided, communications are reestablished, and fallout prediction and warning of threatened areas are accomplished. Available combat and combat support units may assist by providing emergency communications and controlling traffic and personnel movement.

g. Further details on rear area security and on area damage control are contained in FM 54-2, FM 100-5, and FM 100-10.

CHAPTER 7 RETROGRADE

Section I. GENERAL

217. Introduction

a. A retrograde operation is a movement to the rear or away from the enemy. These operations may be forced by enemy action or may be made voluntarily. In either event such an action must be approved by the higher commander. A well-planned and organized retrograde, aggressively executed, provides opportunities for inflicting heavy damage to enemy troops and materiel.

b. In the conduct of the retrograde, the division will employ a combination of offensive, defensive, and delaying tactics supported by nuclear weapons. Because of their inherent characteristics of tactical mobility and extensive communications, the armored and mechanized divisions can cover a wider front in the retrograde than the infantry or airborne divisions.

218. Types of Retrograde Operations

Retrograde operations are classified as withdrawal, delaying action, and retirement. Within a division in contact with the enemy, a combination of these types of actions may be conducted simultaneously or subsequently as one form develops into another. See FM 100-5.

219. Purpose

Retrograde movements are conducted to accomplish one or more of the following:

- a.* To harass, exhaust, inflict punishment upon, resist, and delay the enemy.
- b.* To draw the enemy into an unfavorable situation.
- 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.

220. Basic Considerations

a. Terrain and Weather. Proper use of the terrain can in itself cause considerable delay to an enemy force and provide the delaying force an opportunity to inflict heavy punishment. Plans provide for maximum use of natural obstacles (rivers, swamps, passes, and other defiles). Positions are selected which provide long-range observation and fields of fire. This procedure allows the unit commander to engage the enemy at long range and to maintain his fire as the enemy maneuvers toward the position. Artificial obstacles are created by mines, atomic and conventional demolitions, toxic chemical agents, and nuclear weapons. These barrier systems make maximum use of natural obstacles. Good road nets facilitate the redistribution of units, the commitment of reserves, and the withdrawal of units. Terrain affording good cross-country trafficability permits wider dispersion and reduces vulnerability to enemy air and nuclear attack. Clear weather provides good observation and assists in attaining maximum results from nuclear fires. Unfavorable weather conditions may limit observation, reduce the effects of nuclear fires, limit cross-country movement, impair efficiency of personnel and equipment, and increase the problem of command and control. Weather conditions are of special interest in the planning and employment of fallout to create obstacles, canalize enemy forces, and disrupt enemy intentions.

b. Control and Coordination.

- (1) The division conducting a retrograde operation will frequently be deployed on an extended front. Subsequent operations consist of a series of independent unit actions within the framework of the overall detailed plan. Missions issued to subordinate elements and their sequence of execution will be more detailed and more restrictive than in other types of operations. However, each subordinate commander should be given freedom of maneuver to permit him to exploit advantages that develop at his level. Care must be taken to insure the enemy does not bypass or envelop elements of the force, or make a penetration which might prevent the accomplishment of the overall mission. Detailed control and coordination are accomplished by the use of phase lines, checkpoints, designated delay positions, time and routes for withdrawal, and provisions for positive traffic control. Plans for administrative 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.

- (2) Radio communication is used at all echelons to exercise 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. For information as to signal communication support, see paragraphs 79 and 80.
- (3) Movement of civilians must not interfere with the tactical operation. Civilian control measures prescribed must be easily understood and capable of enforcement with minimum employment of combat troops. The plan for control of civilians should include provisions for—
 - (a) Early issuance of directions regarding the overall plan for 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 as to the hours during which movement may be made and specific routes to be used.
 - (b) Maximum employment 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.
 - (c) Establishment of civilian collecting points as required.
 - (d) Coordination with adjacent and higher headquarters to integrate plans and provide for mutual support.
- (4) Additional information on the application of control and coordination measures is contained in chapters 5 and 6.

c. Reconnaissance and Security.

- (1) In retrograde operations, the purpose of reconnaissance is to obtain information for the production of intelligence. All division intelligence collection agencies are employed to provide information of the enemy. Specific route and area reconnaissance missions may be assigned to the brigades within their assigned sectors.
- (2) Specific elements of information, such as location of enemy nuclear delivery means and numbers and yields of weapons available; direction of movement, strength, and composition of the main attack force; location of enemy armor; efforts to impede or block the retrograde movement; and use by the enemy of such measures as airborne attack, air attack, amphibious attack, guerrilla

action, or infiltration to interfere with the retrograde operation are essential parts of the division's intelligence collection plan.

- (3) The division commander uses the available intelligence in arriving at a plan designed to inflict the maximum casualties on the enemy and insure success of the operation. Early intelligence of enemy movement permits the adjustment of plans to minimize interference with the retrograde operation. Carefully planned and violently executed offensive action is taken by the retrograde force to exploit available intelligence when decisive action is indicated.
- (4) Employment of nuclear fires, coupled with limited offensive action and other fires to include persistent chemical agents, assist in providing security during retrograde operations. Knowledge of the intent to withdraw is denied the enemy as long as possible. Maximum passive security and deception measures are adopted to deprive the enemy of knowledge of the move. These measures may include 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.
- (5) Security against nuclear attack is provided by withdrawing on a broad front, widely dispersed assembly areas, and denial to the enemy of observation and intelligence of the movement.
- (6) Positive measures must be taken to provide security to the front, flanks, and rear of the main body from ground and air attack. Organic and supporting tactical air force reconnaissance aircraft are employed to locate and to maintain surveillance of enemy units. Artillery units are positioned to support the security elements.
- (7) Planning includes provisions for the defense of rear areas. Security detachments are employed to secure defiles which must be traversed by elements of the division. Attached air defense artillery is employed to protect such areas from enemy air attack.
- (8) Deception measures are employed to assist the main body and security forces in withdrawing with minimum enemy

interference. Such measures are also employed to trap and destroy the enemy.

d. Combat Support.

(1) *Air support.*

(a) Tactical air force aircraft are employed against hostile aircraft and to delay the enemy advance by harassing and interdicting hostile ground forces at critical localities. Column cover aircraft are employed to assist the security forces in the accomplishment of their mission. Maximum use is made of tactical air force offensive aircraft to support counterattacks and other offensive action. Forward air controllers are allocated to security elements and to other elements of the division in accordance with the overall operation plan. Provision is made for each major command to have forward air controllers when committed. Successive bomb lines are prescribed in operation orders. For retrograde operations, the bomb line is located closer to friendly units and may be shifted more frequently than during offensive operations.

(b) High performance reconnaissance aircraft provide distant reconnaissance and information as to location and disposition of enemy forces. Particular attention is given to the detection of enemy attempts to envelop the flanks. Enemy concentrations located by reconnaissance aircraft are destroyed by nuclear attack or by other offensive action.

(c) Army aviation units placed in support of the division by higher headquarters normally are employed to transport troops, supplies, and equipment. Such units assist the commander in overcoming terrain barriers, rapidly shifting troops, supplying units located at a distance from the main body, and evacuating personnel and materiel.

(2) *Artillery.*

(a) In retrograde operations, field artillery is employed to take the enemy under fire at extreme ranges and force his early deployment. It is used to interdict enemy avenues of approach, deliver harassing fire, destroy enemy concentrations through use of nuclear weapons or conventional fires, and to support the combat elements of the division. Field artillery is prepared to give continuous support during all types of retrograde operations.

- (b) When operating on an extended front or against a strong enemy force, additional artillery units are frequently attached to the division. Artillery is retained under centralized control when such control insures effective support to committed elements of the division. Retrograde operations conducted on a wide front often will dictate the attachment of units to subordinate elements. Under this latter condition, the light artillery battalions (105-mm) may be attached to committed brigades. Elements of the field artillery battalion (155-mm/8-inch howitzer) (missile/howitzer battalion, airborne division) may also be attached to light artillery units to furnish effective artillery support. The range capability of the field artillery missile battalion (missile batteries, airborne division) normally will permit retention of this type unit under division artillery control and its employment in a general support role.
- (c) Planning for artillery support during retrograde operations includes provisions for artillery support to the division reserve and other uncommitted elements when committed. The division reserve should be provided with forward observers and liaison officers at the start of operation so it may be committed with minimum delay.
- (d) Attached air defense artillery units may be retained under centralized control or elements may be attached to subordinate commands. Priorities for air defense normally will be given to nuclear delivery means, critical avenues of low altitude approach, the support command, and command installations. When air defense artillery is not attached to the division, recommendations are submitted to the higher commander regarding units and areas to be protected.
- (3) *Engineers.*
- (a) Engineers may be placed in support of, or attached to, combat units as the situation demands. Execution of the division barrier plan, construction of obstacles and rearward positions, and road maintenance may dictate a centralized engineer effort. The requirements for engineers by units in contact with the enemy may dictate attachment of engineers to them. Brigades may further place engineers in support of battalion task forces. Unless additional engineer support is furnished by higher headquarters, attachment of engi-

neers to combat units may decrease the effectiveness of the engineer effort.

- (b) One of the most important functions of the engineers will be to provide advice and assistance in the overall formulation and implementation of the barrier plan. Barriers are used by the retrograde force commander to delay the enemy or canalize him into areas where he can be destroyed with nuclear or nonnuclear fires. Well-planned and widespread use of barriers, to include chemical munitions, assists in gaining time and in avoiding close pursuit. 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 (plan).
- (c) Subsurface or surface nuclear detonations may be employed to create craters fallout patterns and contaminated areas, and to slow or impede the enemy's advance. The employment of such atomic demolition munitions (ADM) must be reported to the higher commander.
- (d) Detailed plans are prepared for demolitions along enemy avenues of approach and those routes which lead into the division zone. 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—
 1. Provisions for placing and firing the necessary demolitions.
 2. Adequate guards to prevent premature firing of charges or seizure by enemy infiltrators.
 3. Fixed responsibility for the destruction of bridges.
 4. Schedule for destroying bridges no longer needed by friendly forces.
 5. Covering by fire, including nuclear fire, those obstacles created by demolition.
- (e) The destruction of bridges is of major importance to the retrograde force commander. Care is exercised to insure that bridges are not blown prematurely or that they are not seized intact by the enemy. To accomplish this, responsibility for blowing bridges within his zone is delegated to the tactical commander. A demolition firing party and a demolition guard are designated for each bridge. The guard commander has the authority

to destroy the bridge, subject to conditions established by the higher commander. A list of all units that are to use the bridge is furnished the guard commander. Each unit commander notifies the guard commander when his unit has cleared. After the main body has crossed, the majority of the bridges in the zone are destroyed. Certain predesignated bridges are left for use by 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 provisions of the demolition plan.

- (4) *Signal.* Because of the type of support furnished, signal units normally will be retained under centralized control. The communication centers of the command operations and forward communication companies will be employed to supplement the organic communication means within the subordinate units to provide an effective signal communication system. Every effort will be made to prepare signal facilities in the rearward areas well in advance of their occupation by the main combat elements (par. 80).

e. Administrative Support.

- (1) Administrative support units are retained under centralized control when this procedure will provide effective support for major subordinate units. When operating over extended distances, the attachment of administrative support units to brigades may be required. Under these conditions, elements of the medical, supply and transportation, and maintenance battalions are attached.
- (2) Planning for a retrograde operation provides the following:
- (a) Adequate support for the operation;
 - (b) Evacuation of supplies and disabled equipment;
 - (c) Destruction of supplies and equipment not evacuated; and
 - (d) Prompt evacuation of casualties.

This planning avoids the unnecessary destruction, loss, or hauling of supplies. These objectives are attained by limiting the flow of supplies into the forward areas and initiating early evacuation of excess supplies. Supply discipline 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 nor-

mally are prepositioned along routes of withdrawal. This reduces the enemy's ability to interfere with supply operations, simplifies supply procedures, and permits early withdrawal of supply units.

- (3) Medical evacuation is expedited during retrograde operations. Areomedical evacuation units normally are provided by field army. When such units are not available or cannot provide the support required, aircraft from the aviation battalion may be employed to assist in the evacuation of casualties. Clearing stations are established in the rear of committed brigades to render effective support. Seriously wounded personnel who require immediate surgical treatment may be evacuated direct to mobile army surgical hospitals. Air evacuation direct from the battalion aid station is used to the maximum.
- (4) Maintenance support to committed units is provided by attaching or placing forward support companies of the maintenance battalion in support of such units. The forward support companies are augmented with necessary maintenance assistance from the headquarters and main support company. If not attached, maintenance support will be provided on an area or unit support basis. Using this system, each forward support company of the maintenance battalion is responsible for supporting all units in a specified area. Such an area, for example, might include a committed brigade and those elements of division artillery, division troops, and support command that are operating in that brigade's sector. Badly damaged materiel is evacuated to the rear to prevent its capture and to effect necessary repairs. Equipment which can be repaired in position is so repaired to maintain combat effectiveness and reduce evacuation requirements. Equipment which can be neither repaired nor evacuated is destroyed.
- (5) Administrative support units and installations are located well to the rear during retrograde operations. Such locations assist in insuring uninterrupted service, maximum protection, and minimum displacement. Maximum dispersion consistent with control and provisions for defense is maintained. These units are displaced early and normally under cover of darkness. This reduces traffic congestion and eliminates interference with the movement of combat units. Details on logistical support are contained in FM 54-2.

f. Leadership.

- (1) Commanders at all echelons demonstrate personal, aggressive leadership to maintain the offensive spirit within the units. The maintenance of a high state of morale is of special importance during retrograde operations. All troops are oriented to the extent possible on the purpose of the operation. An aggressive, offensive spirit is maintained by emphasizing the opportunities which will be afforded for destroying the enemy. Every opportunity for successful offensive action is seized and the results disseminated to nonparticipating units. Successful nuclear fires employed against the enemy and their results are made known to the troops.
- (2) Operation and administrative plans have a direct influence on morale. Planning must be thorough and efficient. Provision is made to insure the withdrawal of all units and the prompt evacuation of casualties. Supply requirements are computed and appropriate measures prescribed to insure receipt at the smallest unit level. Plans are closely supervised, effectively controlled, and vigorously executed. The highest degree of professional competence is demanded at all echelons.

Section II. WITHDRAWAL

221. General

a. A withdrawal is an operation in which all or part of a deployed force disengages from the enemy. It may be executed during daylight or under cover of darkness and may be forced or voluntary.

b. Regardless of the type of withdrawal being conducted, either daylight or night, contact is maintained with the enemy forces to provide security and deception and to prevent a rapid enemy advance. When the corps is conducting a withdrawal, the division may be employed as a covering force to provide security for the remainder of the corps.

222. Plans and Orders

- a.* Orders for a withdrawal are prepared in detail to include—
- (1) New location to be occupied and disposition of units within that location.
 - (2) Zones and/or routes of withdrawal to be used by subordinate elements.
 - (3) Provision for security forces and other security measures.

- (4) Tactical cover and deception measures.
- (5) Time and priority of withdrawal by units.
- (6) Traffic control measures.
- (7) Provision for evacuation or destruction of excess supplies.
- (8) Evacuation of casualties.
- (9) Communication plan (par. 80).

b. Plans for the withdrawal should be formulated and disseminated sufficiently in advance to permit subordinate units to conduct a daylight reconnaissance.

c. The withdrawal may be facilitated by the conduct of aggressive, limited objective attacks. Such attacks force the enemy to assume the defense and permit the withdrawal to be conducted with minimum interference.

d. Division reserves are used to cover the withdrawal of the division. They may be assigned route and area reconnaissance missions or to seize and hold key terrain essential to the success of the mission.

e. Nuclear weapons are employed to assist in the withdrawal of units and to support the security forces by firing against located enemy concentrations. When used to help in disengaging a unit, a nuclear safety line is designated and troops are warned. During operations, nuclear delivery means require protection against hostile action. This protection may be accomplished by their early withdrawal to rearward positions from which they can continue to deliver fire; by assigning specified combat units the mission of protecting the nuclear delivery means; or by locating uncommitted elements of the reserve sufficiently near the nuclear delivery means to afford them security without detracting from the ability of the reserve to perform its primary mission and without so concentrating forces as to present a lucrative target for enemy fires, risking the loss of both the reserve elements and the nuclear delivery means.

223. Conduct of Night Withdrawal

a. Night withdrawals are preferred over daylight withdrawals (fig. 26). If secrecy and deception fail, nuclear attacks against enemy forward units can be used to facilitate the withdrawal. The withdrawal normally will begin at such time as will insure completion prior to daylight. The hours of darkness are exploited to the maximum for the rearward displacement of the main body.

b. Brigades and other units in contact with the enemy designate portions of their forces to remain in contact and to cover the

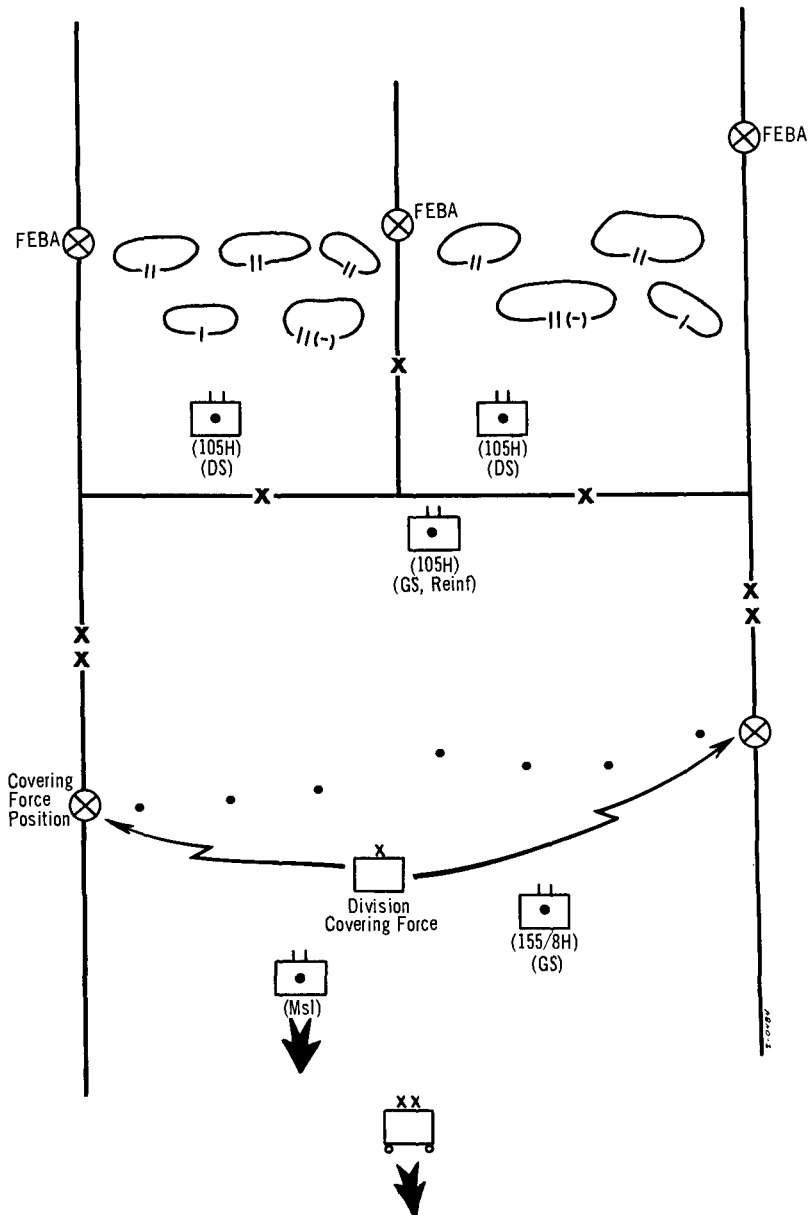


Figure 26. Night withdrawal—division first phase.

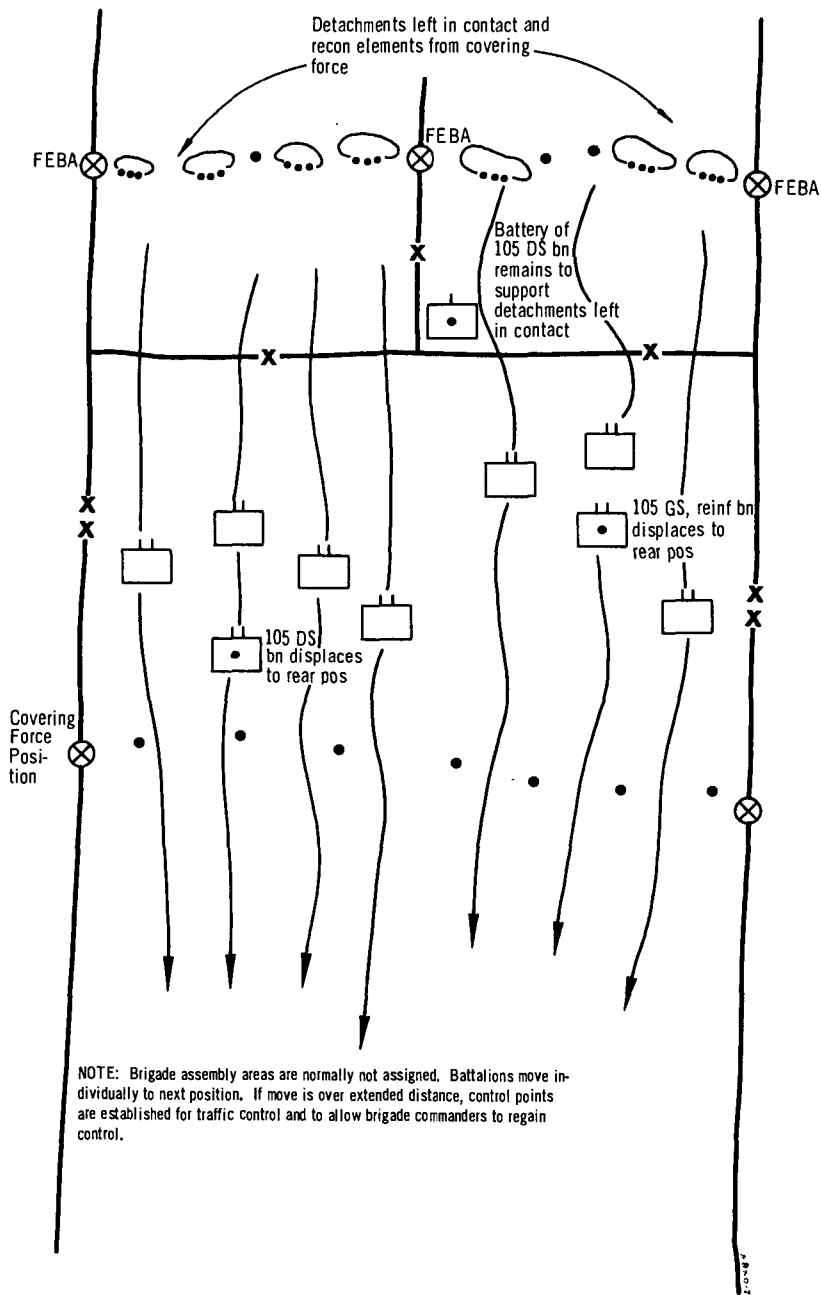


Figure 27. Night withdrawal—division second phase.

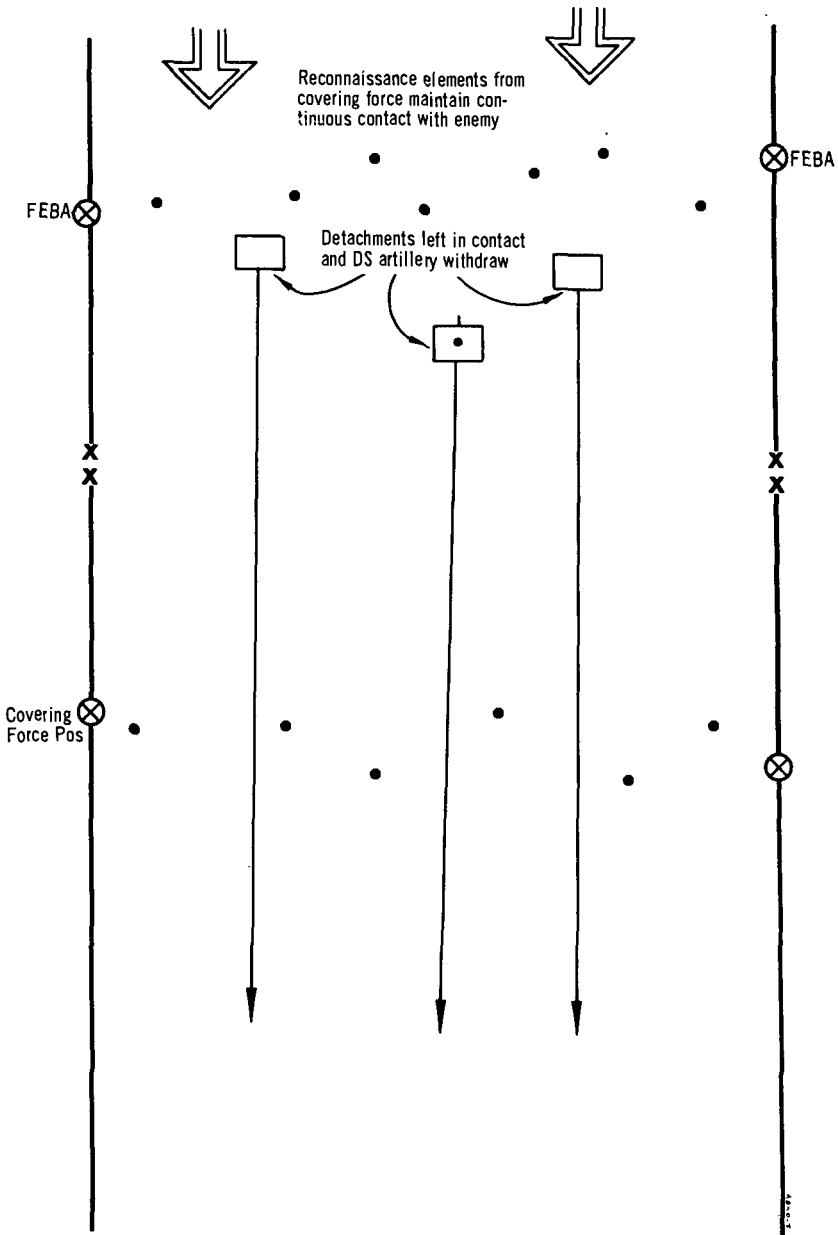


Figure 28. Night withdrawal—division third phase.

withdrawal of the major elements of the unit (fig. 27). Security forces left in contact seek to prevent the enemy from learning of the withdrawal. They delay and deceive the enemy and prevent interference with the withdrawal of the major elements of the command (fig. 28). Elements of the main force usually initiate movement to the rear in the following sequence: elements to reconnoiter and prepare rearward positions or assembly areas, administrative support units, artillery not essential to support of units in contact, and the units in contact. Small unit security forces may remain in contact until the withdrawal is completed, or they may withdraw through a larger security force. This larger security force normally consists of a single unit and covers the retrograde action of the entire division or brigade. In either case, security forces employ delaying action tactics as discussed in paragraphs 225 through 231.

c. The withdrawal of forward units is executed on a broad front. Units move directly to the rear, form march columns, and proceed to the designated location. To further the reorganization and assembly of units, brigade or division may designate assembly areas for subordinate units. Such areas, when used, are widely dispersed and are occupied for minimum periods of time. Units designated to occupy these assembly areas are responsible for providing local security.

d. When all elements of the division except the security elements have disengaged from the enemy and formed march columns, the withdrawal from action is considered completed. Further movement to the rear or away from the enemy is classified as a retirement. Retirements are conducted as described in paragraphs 232 and 233.

e. Success of a night withdrawal depends upon control, security, and deception. Control and security are provided by thoroughly detailed preparation of plans, deception, and the simulation of normal radio traffic, fires, and other activities. If possible, committed brigades withdraw simultaneously on a broad front. Routes of withdrawal are assigned for artillery, combat and administrative support units, and the division reserve. Zones and/or routes are designated for the brigades.

224. Conduct of Daylight Withdrawal

a. The greater the mobility and long-range firepower of the division the better will be its capability to conduct a successful daylight withdrawal. Since daylight withdrawals normally are subject to enemy observation, success is dependent on mobility, control, and effective employment of security forces.

b. The procedure followed in a daylight withdrawal is similar to that followed in a night withdrawal. Each unit in contact with the enemy normally provides and controls its own security force. These forces should be organized with a relatively high proportion of tanks to permit the infliction of maximum delay and casualties on the enemy and to minimize friendly losses. A large security force, under division or brigade control, usually will not be employed. Close coordination and control between unit security forces are required. These elements inflict continuous delay on the enemy by aggressively employing fire and maneuver.

c. A covering force normally is provided by the division reserve. It accomplishes its mission either from the security area of the new position or from prescribed areas forward thereof. In addition to covering the withdrawal of the forward defense forces, it is prepared to assist those forces to break contact and to conduct delay between successive positions. It should consist of tanks and mechanized or motorized infantry, and be augmented by Army aviation, field artillery, engineers, and, if available, air defense artillery.

d. Nuclear fires are used to assist the main body in breaking contact with the enemy and in supporting the security forces. Smoke is used to screen movement and to reduce the accuracy of enemy fire.

e. The movement of the main body is expedited. Assembly areas are not used; instead, units move directly to the rear, form march columns, and continue the movement without halting.

f. The withdrawal of units in contact does not follow a particular sequence. Generally speaking, the least heavily engaged units are withdrawn first. When a unit is closely engaged, the commander acts quickly to prevent its destruction. He will use uncommitted units, or units which can be easily withdrawn, and fires to assist in the withdrawal of the engaged elements.

Section III. DELAYING ACTION

225. 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 closely engaged in combat. In executing a delaying action, minimum space is exchanged for maximum delay.

b. A unit is closely engaged when it has lost its freedom of maneuver and no longer possesses the capability of initiating planned action by the introduction of firepower or maneuver at

its echelon. Although elements or all of a battalion task force or the bulk of a brigade may be closely engaged, the division must retain the ability to maneuver to successfully execute the delay.

c. The division accomplishes a delaying mission by—

- (1) Delay on successive positions.
- (2) Delay on alternate positions.
- (3) Combinations of the above technique.

d. Continuous delay is inherent in each of the above techniques and involves the maintenance of constant contact with the enemy by at least a portion of the delaying force, including the use of long-range firepower and maneuver, to cause him to deploy, reconnoiter, maneuver, and take other time consuming measures.

e. Delay on successive positions may be required when—

- (1) Delay for a prolonged period is necessary.
- (2) A relatively large amount of terrain can be given up.
- (3) A series of suitable terrain positions is available.
- (4) The division has an advantage in mobility.
- (5) The enemy poses a nuclear threat.

f. Delay on alternate positions may be required when the conditions for delay on successive positions exist and the division zone is narrow enough to permit the division to man two positions simultaneously.

g. The above techniques may be used in combination. Continuous delay is sought on and between positions. Situations beyond the control of the division may require rapid transition from one technique to another. Aggressive offensive action is taken whenever opportunities arise to inflict serious casualties on the enemy. Similar action may be required as a means of deception, to control dominating terrain, or to disengage a closely engaged force.

h. Planning for the conduct of the overall operation is centralized but its execution is decentralized. Within the overall plans announced by the division commander, subordinate unit commanders are given maximum freedom of action. This freedom of action permits the exploitation of any advantages which may accrue at the small unit level and allows increased delay to be caused at that level.

i. Nuclear fires to include fallout enable the division to inflict severe casualties on the enemy while conducting a delaying action. Withdrawals may be planned to lure the enemy into areas which favor nuclear attack. ADM may be left in areas where the enemy

can be expected to mass. Such areas are kept under observation to insure that detonation occurs at the appropriate time.

j. For additional information on the delaying action, see FM 100-5.

226. Planning the Delaying Action

When the division is given a mission to delay, the higher commander (corps or field army) normally will state the mission in general terms allowing the division commander maximum freedom for personal initiative. The following is considered to be the minimum command guidance necessary:

a. General Location of the Initial Delay Position. The higher commander's guidance may be specific to the point of designating the initial delay position (IDP) but normally will indicate a general area, thereby allowing the division commander to reconnoiter the area and recommend or select the specific location. If the division is in contact when the decision is made to initiate the delay, it is not necessary to designate an IDP since the friendly forward dispositions become the IDP.

b. Area for Delay. The higher commander will specify the area in which the division is responsible for the delay. Lateral boundaries are prescribed and coordinating points are indicated for the IDP and subsequent corps designated delay positions. When the division is deployed to cover the withdrawal of other corps elements, it is free to operate in the entire corps zone.

c. Period of Delay. The corps commander will specify to the division commander the time he is to delay the enemy forward of a specified line. Normally, the division commander will be given the IDP and the new location of the corps security forces and not intermediate delay positions or phase lines. There may be occasions, however, when the higher commander prescribes a period of delay forward of a line other than the IDP or corps general outpost line, for example, to insure that an obstacle is held until all corps elements are across it. The corps commander thus retains the control necessary to accomplish the overall mission.

d. Location of the New Corps Security Area. Location of the new corps security area and distribution of the elements occupying it are of primary concern to the delaying force commander since he must make plans for its occupation or a possible rearward passage of lines. See paragraphs 234 through 239 for details on withdrawal through a rearward position. If the location of the new security area is not known during the initial planning, the information must be provided the delaying force commander in sufficient

time to permit him to make timely plans. In the case of a division covering the withdrawal of other corps elements, the division commander will, if possible, insure that his brigade boundaries coincide with the boundaries of the major forces occupying the corps security area.

e. Limitations Imposed Upon the Operation. In his guidance the corps commander must identify those areas in which he has reason to limit the operation. As an example, limitations as to use of nuclear weapons, chemical or biological agents, or a specific control measure may be necessary during a particular operational phase of the delaying action.

227. Selection of Delaying Positions

a. Delaying positions are selected which will afford the greatest opportunity for destroying the advancing enemy as well as inflicting delay. Positions are selected where minimum forces can cause the enemy to mass and thus present a profitable nuclear target. Successive delaying positions should be far enough apart to cause the enemy to regroup prior to continuing the attack from one position to the next. Delaying positions are sought which incorporate the following:

- (1) A series of parallel ridges across the lines of hostile advance.
- (2) Unfordable streams, swamps, lakes, and other obstacles on the front and flanks.
- (3) High ground with good observation and long-range fields of fire.
- (4) Concealed routes of withdrawal.
- (5) A road net and/or areas providing good cross-country trafficability.

b. Delaying positions may be selected and designated by division or left to the discretion of brigade commanders. When a suitable natural obstacle extends across the entire division front, it normally will be designated as a delaying position by the division commander. In the absence of suitable natural obstacles, the division commander may designate phase lines rather than actual delaying positions. Concurrently, he announces how long the enemy is to be held forward of each phase line. Here the commander relates the overall time for delay to the depth of the area in which the delay will occur. From a study of the terrain he further relates this time in hours to distance on the ground, establishes phase lines, and determines the length of time the enemy must be held forward of each of these lines to gain the

minimum overall time prescribed in the mission. These phase lines may later be designated as delaying positions and can be used as references when making necessary changes in organization for combat or missions for subordinate units. In executing the operation, brigades hold the enemy as far forward as possible, for as long as possible, without becoming closely engaged. Based on the phase lines and the time-phasing schedule announced by the division commander, brigades select delaying positions to be occupied by their major subordinate elements. It is on and between these positions that the required delay is inflicted. Delaying positions selected by brigades are coordinated with division and with adjacent units.

228. Organization of Ground in Delaying Action

a. In planning for a delaying action, definite zones of responsibility are assigned to each committed brigade. The limits of each zone are delineated by boundaries. These boundaries may be extended through the depth of the division zone, and as a minimum, must extend through the next rearward division delaying position or phase line.

b. In assigning zones to subordinate units, each enemy avenue of approach is included in its entirety to one unit. Boundaries are assigned so that terrain features which control fire and observation into a sector are assigned to the unit having responsibility for that sector. Coordinating points are designated for coordination and to insure continuity of the position.

c. Natural obstacles are exploited in organizing delaying positions. Artificial obstacles also are used to improve the position to the extent possible with the materials, time, and manpower available. Although important, obstacles alone must not be relied on to halt the enemy's progress. An aggressive enemy will attempt to gain surprise by attacking over ground considered impassable. All obstacles, natural and artificial, must be covered by fire to effect the maximum delay. In massing to overcome such defended obstacles, the enemy may present a profitable nuclear target.

229. Organization for Combat in Delaying Action

a. A decision must be made as to how the division is to be deployed for the delaying action. In implementing this decision the division commander provides control headquarters and allocates troops to the covering force or general outpost (GOP) if any, delaying force, and division reserve. A division covering force or GOP may be employed if the division is not initially in contact.

b. The amount of delaying force necessary across the division zone will depend on relative enemy strength, width of the zone, nature of the terrain, depth of the zone, and period of delay required. Usually, this analysis will result in the major portion of the division force being required in the force deployed on the delay position.

c. The reserve at division level will be small since the bulk of the force is needed in the delaying positions. There may be times when the division commander retains authority to employ, as a division reserve, a portion of the troops allocated to a brigade.

d. Delaying positions are not organized in great depth. Firepower is forward with the bulk of the forces concentrated on likely avenues of approach. Fundamentally, the delaying force should be capable of delivering long-range fires; the reserve should be highly mobile and responsive in the conduct of limited objective attacks and counterattacks.

e. Engineer support is provided to each committed brigade, usually by the attachment of elements of the engineer battalion.

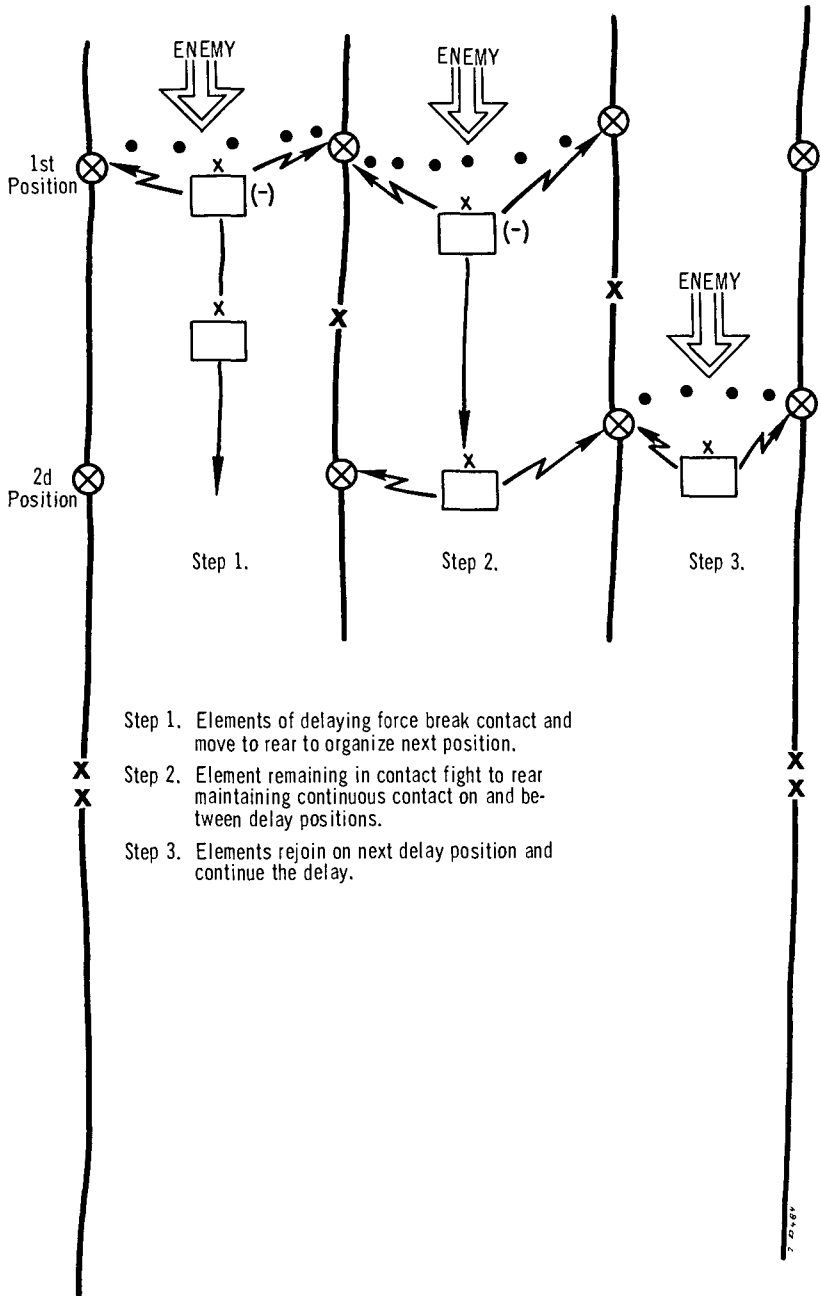
f. The organization for combat of the division artillery and the division support command is discussed in paragraph 220 and FM 54-2, respectively.

230. Delay on Successive Positions

a. Delay on successive positions is the type delaying action most frequently conducted by the division. When employing this type delaying action, the major portion of the division is continuously in the line (fig. 29).

b. Delay on successive positions envisages the improvement and occupation of each natural delaying position. Delay is inflicted on and between these positions. Terrain is never given up unnecessarily.

c. The IDP is organized and occupied by the major elements of each committed brigade. In some cases, the IDP is occupied prior to the establishment of contact with the advancing enemy. In such cases, a division covering force or elements of each committed unit are sent forward to establish contact and to delay the enemy advance toward the initial position. Long-range artillery and the units in the IDP 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. As the enemy maneuvers toward the position, all individual and automatic weapons are brought to bear, thus subjecting the enemy to an increasingly heavy volume of fire.



- Step 1. Elements of delaying force break contact and move to rear to organize next position.
- Step 2. Element remaining in contact fight to rear maintaining continuous contact on and between delay positions.
- Step 3. Elements rejoin on next delay position and continue the delay.

Figure 29. Delay on successive positions.

d. Each position occupied by a forward unit is defended by that unit until the enemy threatens close engagement or envelopment of the position. When the maximum delay has been achieved and it becomes apparent that further occupation of the position will result in the unit's becoming closely engaged, the withdrawal is commenced. Such withdrawals may be initiated in accordance with prearranged plans, on order of the higher commander, or to prevent close engagement. Each withdrawal is coordinated with division and with adjacent units.

e. When the order to withdraw is received, a portion of the unit concerned displaces directly to the rear and occupies the next designated delaying position. The remainder of the unit maintains contact with the enemy and continues to inflict delay between the first position and the next rearward delaying position. Forces remaining in contact should be organized with as much tank strength as possible. These units, when threatened with close engagement, slowly withdraw toward the next position. When the enemy has advanced to within range of the rear delaying positions, he is 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 which have remained in contact rejoin that portion of the command which is occupying the second prepared position. The commander then employs all his available firepower to hold the position as long as possible. When he is no longer able to hold the position without becoming closely engaged, the withdrawal procedure is repeated.

f. The mission assigned to the division or to a brigade may require that the enemy be delayed for an extended period in an area which has little depth. Under these conditions, the division may be required to risk close engagement to accomplish its mission. Maximum use is made of nuclear and nonnuclear fires to destroy those enemy forces that threaten the delaying position. Counterattacks disrupt the enemy attack, inflict casualties, and cause additional delay.

g. The division normally will retain a reserve when conducting a delay on successive positions. This reserve frequently will be comparatively small and as mobile as possible. The reserve may be ordered to provide security forces forward of the delaying position, counterattack, protect a threatened flank, secure vital rear areas, prepare successive delaying positions, conduct spoiling attacks to assist disengaging forces, or provide overwatching fire to a withdrawing unit. The reserve frequently will be employed to assist a closely engaged unit to disengage by executing a counter-

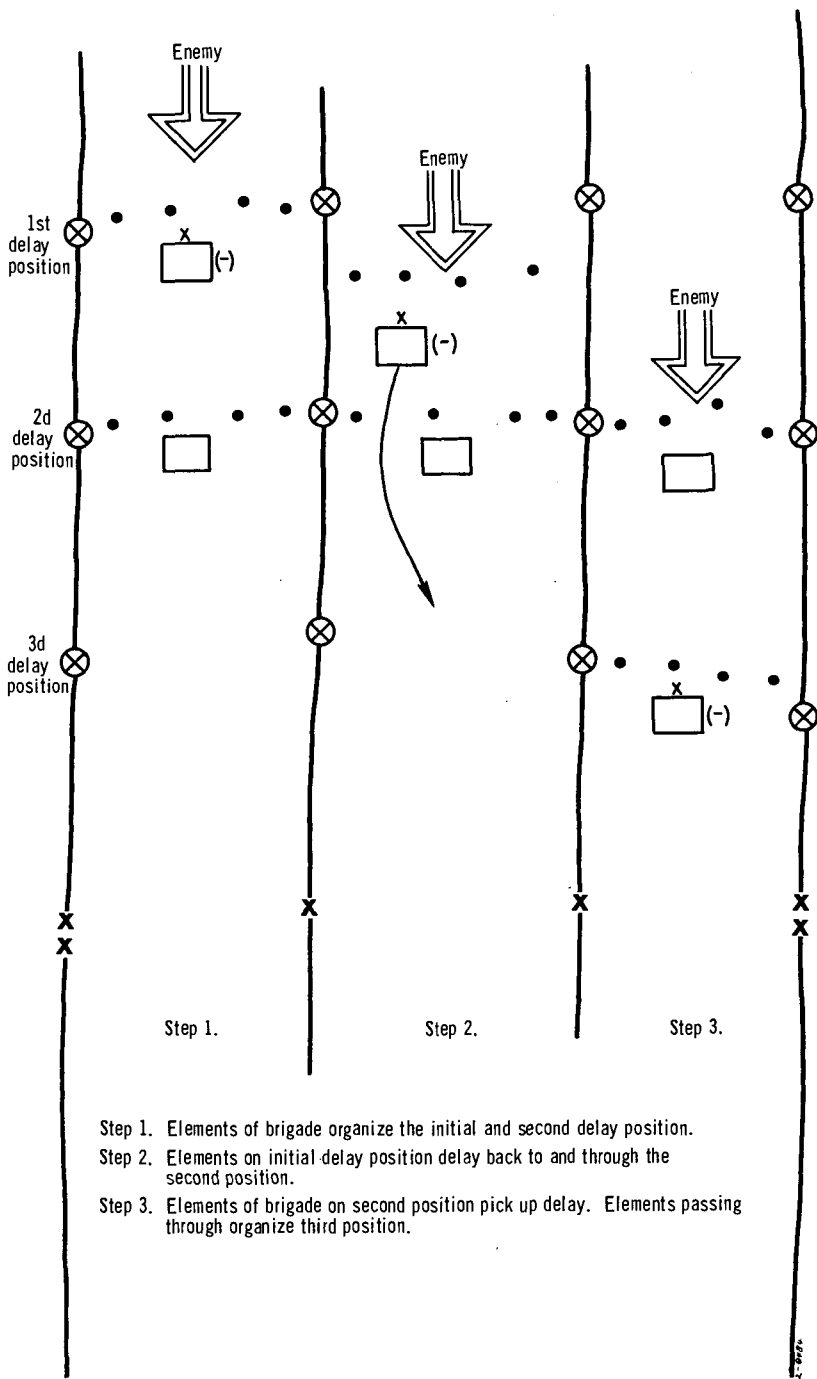
attack. Such counterattacks may take the form of limited objective attacks. In this type action, the counterattack force strikes the enemy flank immediately in rear of the area of contact. Enemy units moving forward in the march column are struck and destroyed prior to reaching the area of contact. The counterattack force usually does not attempt to seize and hold terrain; after reaching its objective it delays back into friendly terrain. Counterattacks designed to strike the enemy flank and to place direct fire on the advancing enemy columns may also be used to cause the damage and delay required. Committed brigades may also retain a small reserve. This reserve may be employed on the same type missions as the division reserve. The division commander may require subordinate commanders to obtain his permission prior to commitment of their reserves. Retention of control over subordinate units' reserves enables the division commander to constitute a larger division reserve, should the situation require such action.

231. Delay on Alternate Positions

a. When operating on a narrow front, the division may elect to delay on alternate positions. Employing this technique, the division or the brigades are divided into two elements. The first element occupies the IDP and engages the enemy. The second element occupies and improves the second delaying position (fig. 30).

b. Those units occupying the IDP delay the enemy by employing the continuous delay technique. They delay on the IDP and between it and the second delaying position. When the units arrive at the second delaying position they withdraw through the units that prepared and are occupying that position. After withdrawing through the second delaying position, the units proceed to the third delaying position and commence the preparation and occupation of that position. Responsibility for delay of the enemy is assumed by the units on the second delaying 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. Division level reserves normally are not retained if this type of delaying action is being conducted. The uncommitted elements occupying alternate positions will be committed as reserves if the need arises.



- Step 1. Elements of brigade organize the initial and second delay position.
- Step 2. Elements on initial delay position delay back to and through the second position.
- Step 3. Elements of brigade on second position pick up delay. Elements passing through organize third position.

Figure 30. Delay on alternate positions.

d. Delay on alternate positions has the advantage of providing more time for the improvement of delaying positions and the maintenance of materiel. It also provides troops with periods of relief from combat. However, this technique may render the division more vulnerable to nuclear fires because of the frequent rearward passage of lines required.

Section IV. RETIREMENT

232. General

a. A retirement is a retrograde operation in which a force marches away from the enemy to avoid combat under the existing condition.

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.

233. Conduct of the Retirement

a. In a retirement, the main body is organized in a manner inverse to that employed in an advance to contact (pars. 139-148).

b. The division 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 main body increases the distance between itself and the enemy, the division commander resumes centralized control.

c. Security for the main body is provided by advance, flank, and rear guards. When the retirement is preceded by a withdrawal action, a strong rear guard normally will be required. The rear guard employs delaying action tactics to delay the advancing enemy and to prevent interference with the movement of the main body. The commander must be especially watchful for attempts by the enemy to envelop the retiring force. Tactical air force reconnaissance aircraft and aircraft from the aviation battalion are employed to obtain early information of such enemy attempts.

Section V. WITHDRAWAL THROUGH A REARWARD POSITION

234. General

a. In retrograde operations the division is frequently required to execute a rearward passage of lines. The division employed as

a corps covering force or elements of the division deployed as the forward security force for the division in the defense may be confronted with this type of maneuver.

b. When a unit is to pass through a rearward position, the commander will be particularly concerned with—

- (1) Command and control to include time for transfer of responsibility from the withdrawing force to the defense force (covering force or GOP).
- (2) Troop density.
- (3) Traffic control.
- (4) Coordination of fires.
- (5) Liaison and exchange of information and plans.
- (6) Communications (par. 80).

235. Command

a. Fundamentally, during the passage neither force exercises command over the other. Mutual cooperation and coordination are essential for withdrawal through a rearward position to be successful. When planned mutual support is not possible, definite command relationship between the commanders must be established.

b. Commanders at all levels must be familiar with the details of the plan. Specific area and route reconnaissance within their sectors must be made by each subordinate commander. Priorities of withdrawal of administrative support and combat units are established.

c. Responsibility for control of the sector is passed from the withdrawing commander to the commander assuming responsibility for the zone at a place or time mutually agreed upon by the two commanders. This passing of responsibility may occur during an operational phase, such as the rearward passage by the withdrawing force through a designated no fire line or phase line, or at a specific hour.

236. Troop Density

When contact is made with the corps security force, uncommitted units of the withdrawing force will begin a withdrawal straight to the rear within their zones. Corps security forces then take up the delay/defense. Units in the withdrawing force will avoid using assembly areas as this would result in an unacceptable density of troops in the forward area of the defense force. Multiple routes provided and controlled by the defense force commander are used to provide necessary dispersion and speed to the withdrawing force in movement through the forward defense area of the defense force.

237. Traffic Control

The withdrawing force should have priority on roads. When the division is withdrawing through the corps defensive positions, the withdrawing division is responsible for traffic control forward of the corps security area; the forces organizing the defense are responsible from the covering force or GOP to their rear boundary, and corps from there to the withdrawing division assembly area or new position.

238. Coordination of Fires

The withdrawing force will coordinate with the forces being passed through to arrange for artillery and other fires to support the delaying forces as they near the covering force or GOP. These fires are especially needed to assist the withdrawal of elements of the delaying force left in contact with the enemy.

239. Liaison and Exchange of Plans

Liaison must be established between the withdrawing force commanders and the commanders of the forces controlling the sectors through which they will withdraw. Liaison officers will be exchanged at all levels.

CHAPTER 8

RELIEF OPERATIONS

Section I. GENERAL

240. Purpose and Types of Relief

a. When tactical operations continue over a prolonged period, conservation of fighting power, maintenance of effectiveness, and the tactical plan may require the periodic relief of committed units. Such reliefs are effected by a relief in place, a passage of lines, or a withdrawal through a rearward position.

b. The division may participate in a relief when the entire division relieves other divisions, or it may direct and control internal reliefs of subordinate units.

241. Basic Considerations

The following considerations are common to the planning and execution of all types of reliefs.

a. Adequate time must be provided for planning and reconnaissance. Early issuance of warning orders is mandatory.

b. Plans must be detailed, yet simple, and well coordinated between all echelons of the relieving and relieved units.

c. When possible, reliefs should be executed during periods of reduced visibility.

d. The plan for tactical cover and deception must include all practicable measures to insure secrecy and surprise.

e. The relief must be executed efficiently, in the shortest possible time, and with every precaution taken to reduce vulnerability to enemy attack during the time the relief is being accomplished.

Section II. RELIEF IN PLACE

242. Definition

A relief in place is an operation in which all or part of a unit is replaced in a combat area by a relieving unit. The combat mission and area of operation responsibilities of the relieved unit are assumed by the relieving unit. The relief in place is executed when

the unit being relieved is on the defense. The relieving unit may have the mission of continuing the defense or preparing for a subsequent attack. In either case the relieved unit or elements are withdrawn.

243. Planning Procedures

a. General. When the division relieves another unit in place, the warning order to the relieving division must specify, as a minimum, the time for commencing and completing the relief and the priorities for use of routes involved. The warning order normally will direct that the relief be carried out under cover of darkness or other conditions of reduced visibility. The order may direct the relief to be completed in one or more nights. Upon receipt of the warning order, the division commander and staff analyze the mission, issue internal warning orders, establish liaison and visit the unit to be relieved. The division will establish its tactical command post in the vicinity of the main command post of the unit being relieved. Joint conferences are held between the commanders and staffs of the two units concerned to work out the details of the relief.

b. Details To Be Coordinated. Procedures for the accomplishment of the following must be agreed upon:

- (1) *Exchange of plans and liaison personnel.* The incoming unit commanders and staffs must be briefed and become thoroughly familiar with the existing defensive plans to include fire plans, barrier plans, and counterattack plans. To make the most efficient transfer of information concerning the plans, dispositions and area of operation, the unit being relieved leaves liaison personnel with the relieving unit. The number of these personnel and the duration of their stay with the relieving unit vary with the situation. Normally, they will remain with each combat and combat support headquarters of the relieving unit from company level up. These personnel usually remain until the incoming units become familiar with the situation.
- (2) *Sequence of relief (if not specified by the headquarters ordering the relief).* To establish the strongest defense during relief, the relief in place is executed by stages, either rear to front or front to rear. In determining the sequence of the relief, both commanders should consider—
 - (a) The subsequent mission of the division that is conducting the relief.

- (b) The strength and combat efficiency of the unit presently in the forward defense area.
 - (c) The capability of the enemy to detect and react against the relief.
 - (d) The characteristics of the area of operations.
 - (e) The need to vary the pattern of relief.
 - (f) Size and type of elements involved in the relief.
- (3) *When "command is to pass."* The time or circumstances under which the relieving unit commander will assume responsibility for the area must be clearly established. Until command passes, the outgoing unit commander retains responsibility for the area and mission and exercises operational control over all subordinate elements of the relieving unit which have completed their portion of the relief. During this period, the incoming units must fit into and accept the general defense plans of the outgoing unit. Normally, command passes to the relieving commander when the units in the forward defense area have been relieved by his subordinate units and when adequate communications means have been established. When command passes, the incoming commander assumes operational control of all units of the outgoing unit which have not yet been relieved.
- (4) *Reconnaissance.* Arrangements must be made for a thorough daylight reconnaissance by commanders and staff officers of all echelons of the relieving unit. Reconnaissance should include an inspection of defensive installations, relief routes, assembly areas, weapon positions, and administrative support installations.
- (5) *Security.* Every effort must be made by all echelons of the relieving and relieved units to prevent the enemy learning that a relief is taking place. In addition to conducting the relief during periods of reduced visibility, the following security measures should be taken:
- (a) Every form of normal activity in the area of operations must be maintained during the relief. The relieving unit should assume the normal pattern of harassing and interdicting fires, patrols, communications traffic, and movement previously employed by the outgoing unit.
 - (b) Restrictions on the size of advance parties and reconnaissance parties must be enforced. These parties should move to the area of operations by infiltration.
 - (c) Aerial reconnaissance by members of the relieving unit should be made in aircraft of the unit being relieved.

- (d) Radio nets of the relieving unit should not be used in the new area until after the relief is complete.
 - (e) Registration of fires of the relieving unit should be coordinated by the outgoing unit until command passes.
 - (f) An integrated tactical cover and deception plan should be executed by both the relieving and relieved units.
- (6) *Movement control.* Arrangements between the relieving and relieved units must be made for the control of units moving into and out of the area. Coordination must include—
- (a) Routes to be used and priorities for their use.
 - (b) Responsibility for traffic control.
 - (c) Location of assembly areas.
 - (d) Provision of guides for relieving units.
 - (e) Common use of transportation.
- (7) *Intelligence.* The unit being relieved transfers to the incoming unit all information and intelligence concerning the enemy and the area of operations. Additional intelligence information required by the relieving unit should be obtained by the unit being relieved.
- (8) *Fire support.*
- (a) The method of relieving fire support units must be clearly established. Normally, the artillery of the unit being relieved will remain in position until the units in the forward defense area have been relieved. By using this procedure, artillery units which are familiar with the fire support plans and the area of operations are in position to fire during the critical period of the relief of forward units.
 - (b) If sufficient firing positions are available, the relieving artillery may elect not to take over the outgoing artillery's firing positions, and may select new positions from which the same fire missions can be accomplished. In this case the relieving artillery moves into position by battery under battalion control. The incoming artillery is prepared to take over fire missions before the relieved batteries are withdrawn.
 - (c) When the lack of firing positions so dictates, artillery may be relieved in place. In this case, it may be necessary to relieve by platoon or section to avoid congestion.
 - (d) When the relief is to be conducted over a period of more than one night, the relieving artillery normally will move at least one gun per battery forward the first

night to secure registration data. In any case, liaison officers and forward observers of the relieving unit join the outgoing units as soon as possible to become familiar with the existing fire plans.

- (e) Until command passes, registration and all other fires of the incoming artillery units are controlled by the commander of the artillery being relieved.
 - (f) The headquarters ordering the relief may direct that the artillery of the unit being relieved remain in position to support subsequent operations of the relieving unit. In this case careful coordination of position areas must be made in order to reduce vulnerability.
- (9) *Exchange of equipment.* The time available for, and other circumstances influencing the relief may require that certain weapons and other equipment be exchanged between the relieving and the relieved units. The extent of such exchange should be authorized by the headquarters ordering the relief.
- (10) *Administrative support.* Pertinent administrative support matters such as the transfer of supplies, use of installations, transfer of PW, operation of civilian collecting points, displacement of administrative support units, use of transportation, and traffic control must be coordinated between the relieving and relieved units.

c. *Concurrent Planning.* The unit executing the relief and the unit being relieved will issue operation orders directing the conduct of the relief in accordance with procedures agreed upon at the planning conference. Prior to the issuance of the operation orders, fragmentary orders are disseminated to subordinate units to allow concurrent planning by these units.

244. Conduct of the Relief in Place

a. From a division point of view, two primary factors determine the method in which a relief in place is conducted. These factors are the sequence of the relief and whether the relief is to be conducted in one or more than one night. Within the scheme dictated by these factors, the relief in place is a series of relief operations conducted by subordinate units and controlled by the division. After detailed divisional planning, execution is decentralized.

b. Once the relief in place is begun, the division staff is primarily concerned with—

- (1) Supervising the timing and movement of subordinate units.

- (2) Coordinating joint use of transportation between relieving and relieved units.
- (3) Supervising the execution of traffic control.
- (4) Preparing to assume overall control after "command passes."
- (5) Staying abreast of the situation so that they can react swiftly to any emergency or required change in the plan for relief.

245. Nuclear Considerations

During the actual execution of the relief, the physical presence of two elements in an area where only one normally is positioned inherently increases vulnerability to nuclear attack. Therefore, the planning and conduct of the relief must be made with an appreciation of the risks involved. Careful scheduling of the reliefs executed by subordinate units must be accomplished to reduce to the minimum the troop density in the area of operations. Generally, if the relief is conducted over an extended period of time, vulnerability to nuclear attack can be reduced. However, the possibility of enemy detection and reaction against the relief are increased. The threat of nuclear attack emphasizes the requirement for secrecy to avoid detection and the necessity for thorough planning to limit the number and duration of profitable nuclear targets. It also points out the need for early and preplanned tactical cover and deception measures.

Section III. PASSAGE OF LINES

246. Definition

A passage of lines is an operation in which an incoming unit attacks through a unit which is in contact with the enemy. Elements of the unit passed through remain in position and support the attacking unit until their fires are masked, at which time they may remain in position, be withdrawn or committed to other action.

247. Planning Procedures

a. General. The planning procedures involved when a division passes through another unit are very similar to those detailed in paragraph 243 for a relief in place. Upon receipt of a warning order which directs an operation requiring a passage of lines, the division commander and his staff will make early contact with the unit being passed through. Arrangements will be made to establish a division tactical command post in the vicinity of the command post of the unit to be passed through and for the initia-

tion of planning conferences to work out the details of the passage.

b. Details To Be Coordinated. During the planning conferences the following details must be coordinated by the commanders of the units involved:

- (1) Exchange of intelligence.
- (2) Exchange of tactical plans to include communication plans.
- (3) Arrangements for reconnaissance by elements of the units passing through.
- (4) Measures to be taken to provide security during the passage.
- (5) Selection of areas of passage and provisions for guides.
- (6) Priorities for use of routes and provisions for movement control.
- (7) The time or circumstances when responsibility for the area of operations will be transferred to the unit passing through.
- (8) Extent of fire support and other combat support to be provided by the unit being passed through.
- (9) Extent of administrative support to be provided by the unit being passed through.
- (10) Signal communication support to be provided by the unit passed through (par. 80).

c. Selection of Areas of Passage. When possible, the areas selected for the actual passage of lines should be the unoccupied areas between elements of the unit in position or on its flanks. This procedure reduces the vulnerability that results when one unit passes directly through the occupied positions of another unit. Vulnerability also is reduced when the subordinate units of the division making the passage move directly to the areas of passage and on into the attack without occupying forward assembly areas.

d. Priorities for the Use of Routes. The unit passing through must have priority for use of routes to and within the area of the unit being passed through. Route priority should be established by the headquarters directing the passage of lines. Traffic control in the area of the unit being passed through is the responsibility of that unit until the responsibility for the zone passes to the passing unit. The passing unit may augment the traffic control capability of the unit in position during the time of passage.

e. Passage of Command. The time or circumstance when re-

sponsibility for the zone of action is transferred to the commander of the unit executing the passage of lines must be mutually agreed upon by the two commanders concerned. Normally, the commander of the unit making the passage of lines assumes responsibility for the zone of action at or prior to the time of attack. The responsibility for the zone may shift at the time of the firing of the preparatory fires or earlier at the direction of the headquarters ordering the passage. This transfer of responsibility requires that the commander making the passage assume operational control of those elements of the unit being passed through that remain in contact at the time of the transfer (see par. 249 for exception).

f. Tactical Support.

- (1) The unit in contact provides all possible aid to the unit passing through, e.g., the gapping of minefields, provision of guides, fire support, and other combat support within its capabilities.
- (2) Normally, because of problems of control, only the indirect fire means of the unit in contact will be used to support the passing unit. After responsibility for the zone of action is transferred to the passing unit, the artillery commander of the passing unit coordinates the fires of the artillery of the unit which has been passed through.
- (3) It is desirable to employ the artillery of the unit making the passage to support the attack. However, if the attack is receiving nuclear support, it may not be necessary to increase troop density by deploying the artillery of the attacking unit in the forward area. In this case, the artillery of the unit in contact supports the attack initially, and the artillery of the attacking unit is placed in rear positions ready to move to forward firing positions to support the continuation of the attack.

g. Administrative Support. The unit in contact provides assistance to the attacking division in administrative support matters as follows:

- (1) Evacuation of casualties and PW.
- (2) Civilian control.
- (3) Use of areas and facilities, e.g., water points.
- (4) Route priority and traffic control.

248. Conduct of the Passage of Lines

a. Elements of the attacking division move preferably during periods of reduced visibility from rearward positions to attack

at the scheduled time. Careful march calculations are made to insure that the units attack at the correct time without the requirement for use of a forward assembly area. This procedure reduces to the minimum the time in which elements of two units are concentrated in the forward area.

b. If the attack subsequent to the passage of lines is preceded by a nuclear preparation, it may be necessary, because of different degrees of protection inherent in the attacking division and the unit being passed through, to prescribe nuclear safety lines. The timing of the movement of the attacking elements from the rear must then provide for these units to reach the nuclear safety line, take the prescribed safety precautions, and then move across the line of departure at the specified time after the nuclear preparation.

c. In some situations it may be desirable to displace the reserves of the unit in contact to rear assembly areas just prior to the beginning of the passage of lines. This procedure reduces troop density during the passage. If this procedure is used, it normally will be prescribed by the headquarters ordering the passage of lines.

249. Passage of the Armored Division Through the Mechanized or Infantry Division

a. In the passage of an armored division through a mechanized or infantry division coordination is facilitated when the passage of each armored element takes place wholly within the lateral boundaries of one major subordinate element of the mechanized or infantry division. Transfer of responsibility for the zone normally will be unnecessary.

b. Special emphasis must be placed on the following coordinate measures:

- (1) Refueling areas and routes into and out of these areas are reconnoitered by personnel from the passing unit assisted by guides furnished by the unit being passed through. It may be necessary for the unit being passed to adjust its positions to permit a satisfactory passage, but such adjustments should be held to a minimum.
- (2) Clearing and marking the lanes through friendly minefields to permit the rapid passage of the passing unit are accomplished by the unit being passed through. Passing units should provide their own liaison officers at difficult gaps or defiles to check each subunit through.
- (3) Details of fire support to be furnished by the division being passed through must be coordinated.

- (4) Priority on roads normally is given to the passing unit consistent with the traffic essential to the support of other units.
- (5) Within its capabilities, the unit being passed through furnishes administrative support to the passing unit during and immediately after the passage. It may include using medical facilities, handling PW, clearing roads of refugees, and assisting in handling the dead, but normally will not include supply of petroleum, oil, and lubricants (POL).

250. Withdrawal Through a Rearward Position

A withdrawal through a rearward position is a passage of lines to the rear in which the unit withdrawing transfers responsibility for the sector to the unit through which it withdraws. This operation normally is conducted as part of the defense or delaying action and is discussed in chapter 7.

Section IV. CONSIDERATIONS AFFECTING THE CHOICE OF RELIEFS PRIOR TO ATTACK

251. General

Situations frequently will arise within the division which require that a unit in contact be relieved prior to the initiation of an attack. This can be accomplished by a relief in place prior to the attack or a passage of lines. The following paragraphs discuss the considerations affecting the choice of methods of relief.

252. Relief in Place

When sufficient time is available, the relief in place prior to an attack should be employed in those situations where—

- a. The unit being relieved is required in another area before or just after the attack is launched.
- b. The capability of the enemy is such that the troop density involved in a passage of lines constitutes an excessive risk.
- c. The attacker requires more detailed familiarity with the terrain and the enemy situation.

253. Passage of Lines

The passage of lines is preferred prior to the attack when—

- a. There is insufficient time to conduct a relief in place.

- b.* More flexibility is desired in the selection of the formation for the attack.
- c.* The fire support of two units is desired in a particular area.
- d.* A major change in the direction of attack is planned.
- e.* It is desired to maintain continuous offensive pressure against the enemy.
- f.* Speed can be achieved.

CHAPTER 9
OTHER TACTICAL OPERATIONS

Section I. GENERAL

254. General

a. The division operates under any and all conditions. However, it may have to be augmented with additional equipment and/or specialized troops as required by the characteristics of the area of operations, the nature of the operations, conditions under which the operations may be conducted, or a combination of these factors.

b. The principles stated elsewhere in this manual are applicable to the tactical operations described in this chapter. Their application must be modified by the special conditions of the operation under consideration.

c. Appendix I lists other references pertinent to tactical operations discussed in this chapter.

Section II. JOINT AMPHIBIOUS OPERATIONS

255. General

a. Army divisions participate in joint amphibious operations as part of the Army component of an amphibious task force. FM 31-12 sets forth the fundamental principles, doctrine, and procedures relative to the Army component of the amphibious task force, to include preparatory training.

b. The composition and size of the Army component force (Army landing force) varies with the type amphibious operation, landing force mission, and the operation environment. The Army landing force is a task force formed on a basic tactical organization varying in size from the lowest echelon capable of semi-independent operations to a field army. It may include elements of a division, a division, or several divisions of like or different type.

c. Divisions of the landing force which execute assault landings are termed assault divisions. They are, in effect, a division task force because the division is reinforced to provide required combat and interim administrative support capabilities pending establishment of normal support systems in the objective area.

d. Infantry, mechanized, or armored divisions may be employed as assault divisions. However, infantry divisions are more readily adapted to lift in transport type ships and to ship-to-shore movement in assault craft and assault aircraft. The greater numbers of heavy vehicles in the mechanized and armored divisions necessitate a high proportion of landing ships, tank (LST), for their movement and landing. Mechanized and armored divisions are well suited for landings over beaches already secured and for rapid advance inland in an exploitation role.

e. In training for amphibious operations, emphasis is placed on preparation of the division for participation in an amphibious attack, the principal type of amphibious operation. The amphibious raid, demonstration, reconnaissance, and withdrawal as secondary types of amphibious operations will normally involve a force of less than division size.

256. Organization for an Amphibious Attack

For an amphibious attack, divisions form temporary combat and administrative organizations which are designated according to a standard pattern for the landing force.

a. *Organization for Landing.* This is a temporary combat grouping of units under one commander for control and coordination during the assault. Assault divisions organize assault landing teams as the basic subordinate task forces of the division. A division in landing force reserve which must be prepared to execute assault landings also organizes assault landing teams. Assault landing team designations include prefixal words reflecting the echelon of the combat unit around which the task force is formed. For reference purposes, an assault landing team may be further identified according to the type of ship-to-shore movement means to be used. Type designations are as follows:

<i>Designations</i>	<i>Surface movement</i>	<i>Air movement</i>
Company landing team (CLT)-----	CLT(S)	CLT(A)
Battalion landing team (BLT)-----	BLT(S)	BLT(A)
Brigade landing team Bde (LT)-----	Bde LT(S)	Bde LT(A)

The brigade landing team consists of two or more battalion landing teams.

b. *Organization for Embarkation.* This is an administrative grouping of forces for the embarkation in ships and the oversea movement. Divisions form embarkation teams which consist of the troops, supplies, and equipment embarked in a single ship. Embarkation elements and units consisting of two or more embarkation teams grouped together to conform to the organization for landing are formed as required. A reinforced division normally

constitutes an embarkation group with the division commander as embarkation group commander.

c. Organization of Shore Parties. A shore party is a task organization formed for the purpose of facilitating the landing and movement through the beaches of troops, equipment, and supplies; for the evacuation from the beaches of casualties and PW; and for facilitating the beaching, retracting, and salvaging of landing ships and craft. Each assault division commander organizes a division shore party. He also provides for organization of landing team shore parties by those landing team commanders responsible for assault, initial development, and operation of a landing beach. A brigade shore party is organized by each brigade commander assigned responsibility for centralizing control over subordinate shore parties and beach support operations pending establishment of the division shore party commander ashore. If brigade commanders are to control beach support operations for only a short period of time, it is preferable that the division shore party commander land early to relieve BLT commanders directly of beach support area responsibilities.

d. Organization of Airmobile Support Parties. An airmobile support party is a task organization formed for employment in a landing zone to facilitate landing and interim logistical support of elements in the zone. An assault division commander provides for organization of airmobile support parties by those landing teams which will execute initial assault landings in assault aircraft.

Section III. SHORE TO SHORE OPERATIONS

257. General

a. Shore to shore operations involve short overwater movement by small forces using Army water craft or aircraft. These operations include—

- (1) Shore to shore attack.
- (2) Shore to shore withdrawal.
- (3) Shore to shore raid.
- (4) Shore to shore deceptive operation.
- (5) Shore to shore reconnaissance.

b. Detailed guidance on shore to shore operations is contained in FM 31-12.

c. Army shore to shore operations normally will involve a division or smaller size force employing primarily Army means for movement. A uniservice command structure normally is used.

Navy and/or Air Force elements may be attached to or in support of the Army Force.

Section IV. JOINT AIRBORNE OPERATIONS

258. General

a. An airborne operation is an operation which involves the movement and delivery by air, into an objective area, of combat forces and their logistics support for the execution of a tactical or a strategic mission. Normally the ground forces are provided by the Army and the airlift forces are provided by the Air Force. The means employed may be any combination of airborne units, air transportable units, and types of transport aircraft, depending on the mission and the overall situation. Ground forces participating in an airborne operation are either parachuted into the objective area or air landed therein. A simple administrative air movement of personnel, supplies, and/or equipment is not termed an airborne operation, although some of the techniques employed in airborne operations may be applicable (e.g., techniques for preparing, loading, and lashing supplies, or for preparing flight manifests).

b. General considerations of joint airborne operations are contained in FM 100-5. Detailed information on the planning and conduct of joint airborne operations is contained in FM 57-10. Technical information required for planning the air movement of troops and equipment is contained in TM 57-210.

c. Movements by air are discussed in paragraphs 331 through 334.

259. Air Transportability of the Division

a. The airborne division has been designed primarily to perform joint airborne assault landings. Therefore all of its equipment is air transportable in Air Force medium transport aircraft and can be delivered by parachute.

b. The majority of the infantry division's equipment is air transportable in Air Force medium and heavy transport aircraft. Exceptions are the main battle tanks, tank recovery vehicles, armored vehicle launched brigade (AVLB) equipment, and certain other items of engineer heavy equipment. The infantry division is well suited to participate, when appropriately tailored, in joint airborne operations in the air landed role.

c. Because of their nonair transportable equipment, particularly main battle tanks and self-propelled artillery, the armored and

mechanized divisions normally do not participate in joint airborne operations. These divisions, minus heavy equipment, may be deployed by strategic airlift to an area where substitute equipment has been previously stockpiled.

260. Participation in Joint Airborne Operations

a. General. This discussion is applicable to infantry and airborne divisions when participating in joint airborne operations.

b. Command Relationships. The division may participate in joint airborne operations as follows:

- (1) *Unified command.* The division, by itself, or as a part of a larger Army echelon, may be part of a unified command established by an existing unified commander. Such a command is established when extensive airborne operations are anticipated, when a broad continuous mission for airborne forces is assigned, and when significant elements of two or more services are committed to such operations for an extended period of time.
- (2) *Joint task force.* The division, by itself, or as part of a larger Army echelon, may be part of a joint task force for a specific operation involving significant elements of two or more services.

c. Role of the Airborne Division. The airborne division is the basic, large, tactical airborne unit. It is organized, trained, and equipped to conduct frequent airborne assaults and therefore normally is the principal participating ground force unit during the assault phase of a joint airborne operation. Doctrine and guidance for employment of the airborne division in joint airborne operations are contained in FM 57-10.

d. Role of the Infantry Division. The infantry division may participate in joint airborne operations in the air landed role. Such participation may be alone or in conjunction with airborne assault operations of the airborne division.

- (1) The division may be air landed within an established airhead to assist in expanding the airhead, to assume responsibility for a portion of the airhead, to be an exploiting force or part of such a force, or to be a reserve force.
- (2) When conditions permit, normally as a result of nuclear fires or lack of enemy strength in the landing area, the division can conduct an air landed operation not preceded by an airborne assault operation of the airborne division.
- (3) Doctrine and guidance for the employment of air landed

units in joint airborne operations are contained in FM 57-10.

e. Tactical Operations in the Objective Area.

- (1) Planning and execution of the airborne assault phase of joint airborne operations are discussed in FM 57-10. Doctrine for employment of the division as expressed elsewhere in this manual is valid for the conduct of tactical operations following the assault. However, the following considerations are included to emphasize certain limitations in capabilities of the division when conducting operations in the objective area.
- (2) Because of the absence of tanks and armored personnel carriers and the limited availability of wheeled vehicles which results from the frequent phaseback of equipment, the division has limited ground mobility. This must be considered in the determination and assignment of missions during execution. Judicious use of available Army aircraft will partially compensate for this limited ground mobility.
- (3) Because of the absence of tanks and other armor protected vehicles in the airhead and the phaseback of equipment, action must be taken to reduce the vulnerability of the division to attack by enemy armor. Maximum use of terrain obstacles, together with the rapid installation of minefields and other obstacles, helps protect the division under such circumstances. Mobile antitank weapons and tactical air support further reduce this vulnerability. If available, additional antitank weapons are used to partially compensate for the lack of tanks.

Section V. AIRMOBILE OPERATIONS

261. General

a. An airmobile operation is one in which combat forces and their equipment move about the battlefield in aerial vehicles, under the control of a ground force commander, to engage in ground combat. The infantry and airborne divisions conduct airmobile operations as a normal part of combat. The size of these operations is contingent upon availability of aircraft and may vary from those involving the use of a squad to those involving one or more battalions. Because of their heavy equipment, the combat battalions of the mechanized and armored divisions are not suited for routine employment in airmobile operations.

b. The capability of the division commander to conduct airmobile operations enables him to—

- (1) Increase the speed and flexibility of operations.
- (2) Pose a constant threat which may cause the enemy to dissipate his forces to protect vital installations and hold key terrain in rear areas.
- (3) Extend the area over which he can exert his influence.
- (4) Improve his rear area security.
- (5) Concentrate his forces quickly and effectively at critical points and redisperse them after accomplishing the mission.

c. Appropriate missions for an airmobile force include—

- (1) Raids.
- (2) Antiairborne operations and operations against irregular forces.
- (3) Overobstacle assault operation.
- (4) Exploitation of nuclear fires.
- (5) Control of key terrain.
- (6) Blocking or screening enemy avenues of approach.
- (7) Feints and demonstrations.
- (8) Reconnaissance and security missions.
- (9) Counterattack of enemy penetrations.
- (10) Reinforce threatened areas.
- (11) Economy of force missions.

262. Basic Considerations

a. Using its organic airlift capability, the division conducts company size airmobile operations. Operations of greater magnitude require that transport aircraft be provided by higher headquarters.

b. Aviation support for airmobile operations is provided by attachment, attachment for operational control for a specified period, direct support, or various combinations of these methods. The lowest echelon capable of effecting control and coordination of the operation exercises control of supporting aerial vehicles in accordance with the overall plan. Normally an aviation unit is placed in support of a ground combat unit with operational control of both units retained by the commander who directs and supports the operation.

c. Limited airmobile operations can be conducted without full air superiority during periods of limited visibility or by using low level flight techniques.

d. Army pathfinder detachments will be available in division aviation battalions when authorized by the theater commander and from higher headquarters. Pathfinders may be used in all airmobile operations when consistent with security aspects and especially during periods of reduced visibility. Pathfinder detachments are trained and equipped to provide terminal guidance to aircraft to assist in the assembly of troops, to reconnoiter and recommend drop or landing zones, and to reconnoiter and make radiological surveys of areas subjected to nuclear attack. Detachments can be delivered to the landing zone by parachute, aircraft, surface vehicles and craft, or they may infiltrate on foot.

e. When possible, routes flown by aircraft avoid areas occupied by enemy forces. Ground or small airmobile patrols are useful in determining the safety of the routes and in securing them.

f. Airmobile operations do not envision direct assault of heavily defended objectives. Forces land at nearby landing zones and control or destroy the assigned objectives in dismounted attacks. Nuclear or chemical fires can be used to eliminate enemy defenses.

g. A daylight airmobile operation permits more effective air and artillery support than one conducted at night and facilitates assembly of troops and equipment. However, darkness aids in achieving surprise and reduces the effectiveness of enemy fire.

263. Planning

Planning procedures for airmobile operations are discussed in detail in FM 57-35.

a. To act quickly and efficiently, the commander must plan rapidly and issue brief and simple orders. Formal operation plans complete with annexes are prepared only for large-scale operations. For small-scale operations, a simple operation plan which includes a graphic presentation of the following may be used:

- (1) Scheme of ground maneuver, including link up.
- (2) Flight route diagram (including, as appropriate, loading areas, force rendezvous points, departure points, air control points, initial points, release points, altitude, speed, and landing/drop zones).
- (3) Air movement table (including, as appropriate, time and place of loading, aircraft allocated to units and aircraft loads, and times aircraft clear various control points).

b. Maintenance and use of unit standing operating procedures (SOPs) covering the activities involved in airmobile operations will save time in launching an operation. SOP aircraft loads are

developed in detail at squad, platoon, and company level. General loading plans are developed for company and battalion to indicate how many aircraft are required to lift each unit (planning worksheet). Loading plans are developed for each type aircraft and for several environmental conditions which would vary the lift capacity of the aircraft.

c. Plans include the provision of electronic countermeasures to reduce the effectiveness of enemy surveillance and fire control equipment.

d. Fire support planning includes the use of artillery fires, close air support, and armed helicopters to destroy or neutralize the enemy's capability to deliver fires against the force en route to or in the objective area.

e. Link up planning is discussed in paragraphs 264 and 269.

f. Alternate plans are prepared in event that—

- (1) Part of the force fails in its particular mission.
- (2) Signal communication is disrupted.
- (3) Weather conditions or enemy action prevents the use of designated routes or landing zones or interferes with landings.
- (4) Withdrawal from the objective area becomes necessary or desirable.
- (5) Reinforcement of units in the objective area becomes desirable.

g. When airmobile operations involve retention of terrain in the objective area, the plan includes defensive measures to be taken. If necessary, a separate plan for defense of the area is prepared.

h. Selection of the hour of landing is influenced by—

- (1) Enemy situation and capabilities (air and ground).
- (2) Predicted weather.
- (3) Visibility.
- (4) Availability of artillery, air, and nuclear fires.
- (5) Availability of ground and aerial vehicles.

i. Timing of the operation with respect to ground operation is influenced by the—

- (1) Depth of the operation.
- (2) Capabilities and limitations of fire support agencies.
- (3) Expected time of link up.
- (4) Availability of logistical support.

Section VI. LINK UP OPERATIONS

264. General

a. A link up operation entails the juncture of two ground units. Such a juncture may occur in joint airborne, joint amphibious, shore-to-shore, or airmobile operations, during the relief of an isolated unit, the breakout of an encircled force, or the convergence of separate forces.

b. The initial phase of a link up operation is conducted as a normal offensive operation. As link up becomes imminent, coordination and control are intensified, placing definite restrictions on the attacking forces.

c. Because forces within an airhead or those cut off by enemy action frequently lack staying power, time is often a critical factor.

265. Planning

a. *General.* Planning for the link up must be timely. Plans of the forces involved in the link up are coordinated in advance. Provisions are made for the prompt exchange of information between the two forces. The following are considerations of interest in planning link up operations:

- (1) Command relationships and responsibilities.
- (2) Command and staff liaison.
- (3) Coordination of schemes of maneuver.
- (4) Fire coordination measures.
- (5) Coordination of communications plans.
- (6) Actions following link up.

b. *Command Relationships and Responsibilities.* The headquarters directing the link up establishes the command relationships and responsibilities of the two forces. The linked up force (hereafter called the stationary force) can be attached to the force making the link up (hereafter called the link up force), or the link up force can be attached to the stationary force, or both forces can come under or remain under control of a higher commander.

c. *Command and Staff Liaison.* Command and staff liaison between the two forces is essential. This liaison is initially established during the planning phase and is continued throughout the operation. As link up becomes imminent, additional liaison personnel are exchanged to represent leading units and their supporting artillery. Army aviation facilitates this exchange. In the event that the operation entails link up with allied forces, provisions must be made for interpreters or liaison officers with linguistic ability.

d. *Coordination of Schemes of Maneuver.* Control measures are carefully delineated. Link up points are selected at which physical contact between the two forces will occur. These points are mutually agreed upon and should be readily recognizable to both forces. They are located where the routes of advance of the link up force intersect the security elements of the stationary force. Alternate link up points are established. Enemy action may force link up to occur at places other than those planned. The number of link up points established depends upon the capability of the stationary force, the number of routes being used by the link up force, nature of terrain and enemy threats to the operation. Troops manning the points, as well as the units contacting them must be familiar with procedures for mutual identification and plans for the rapid passage of the advancing units. Assistance by the stationary force includes removing obstacles established to hinder enemy movement, providing guides, and reserving assembly areas for the reorganization of link up forces.

e. *Fire Coordination Measures.* Fire coordination measures are established by the headquarters directing the operation. Neither force will deliver fires across the lines established without prior clearance of the other. As link up becomes imminent, the fire coordination line (FCL) is moved as close to the stationary force as possible to allow maximum freedom of action to the link up force. Both forces establish bomb lines (BL). The BL of the link up force may be separate from the stationary force in the early stages. As link up becomes imminent, a single BL encompasses both forces; airstrikes not controlled by a forward air controller in the area between the two forces must then be cleared by the link up force and the stationary force. Normally, the initial FCL will become effective at the time a common BL is established (fig. 31). Upon link up, responsibility for fire support coordination for the force as a whole must be clearly established; responsibility for such coordination is that of the senior headquarters in the area or of the force having primary interest in the operations following link up. See paragraph 62 for definitions of fire coordination measures.

f. *Coordination of Signal Communication Plans.* The signal communication plans for the link up operation include channels for radio communication between major units of the two forces. This requires an exchange of call signs, frequencies, and authentication procedures. Army aircraft of both forces can be used to extend the range of communications or to deliver messages between the forces as link up approaches. The signal communication plans also prescribe positive identification procedures for use dur-

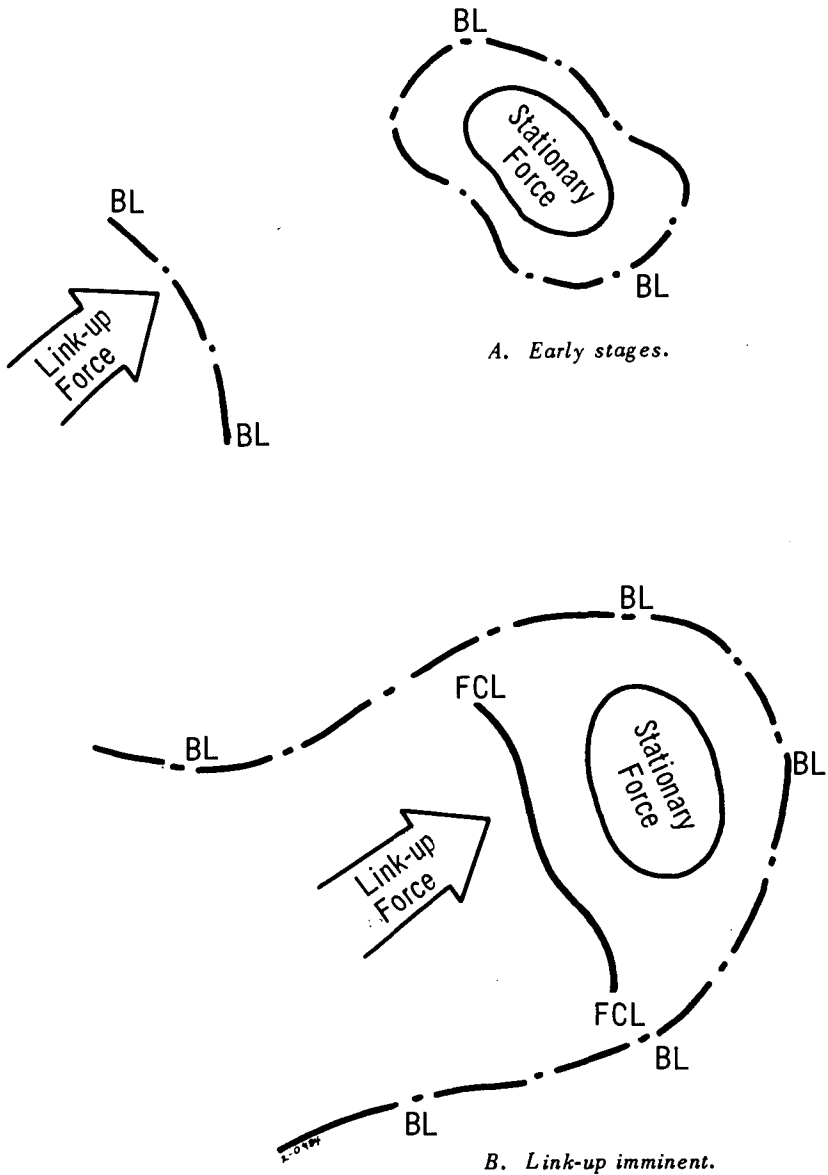


Figure 31. Fire coordination measures in link up operations.

ing daylight and darkness. Pyrotechnics, colored smokes, and panels are used during daylight; and pyrotechnics, infrared devices, and flashing lights are used during darkness. Armbands, vehicle markings, arm and hand signals, and passwords are helpful.

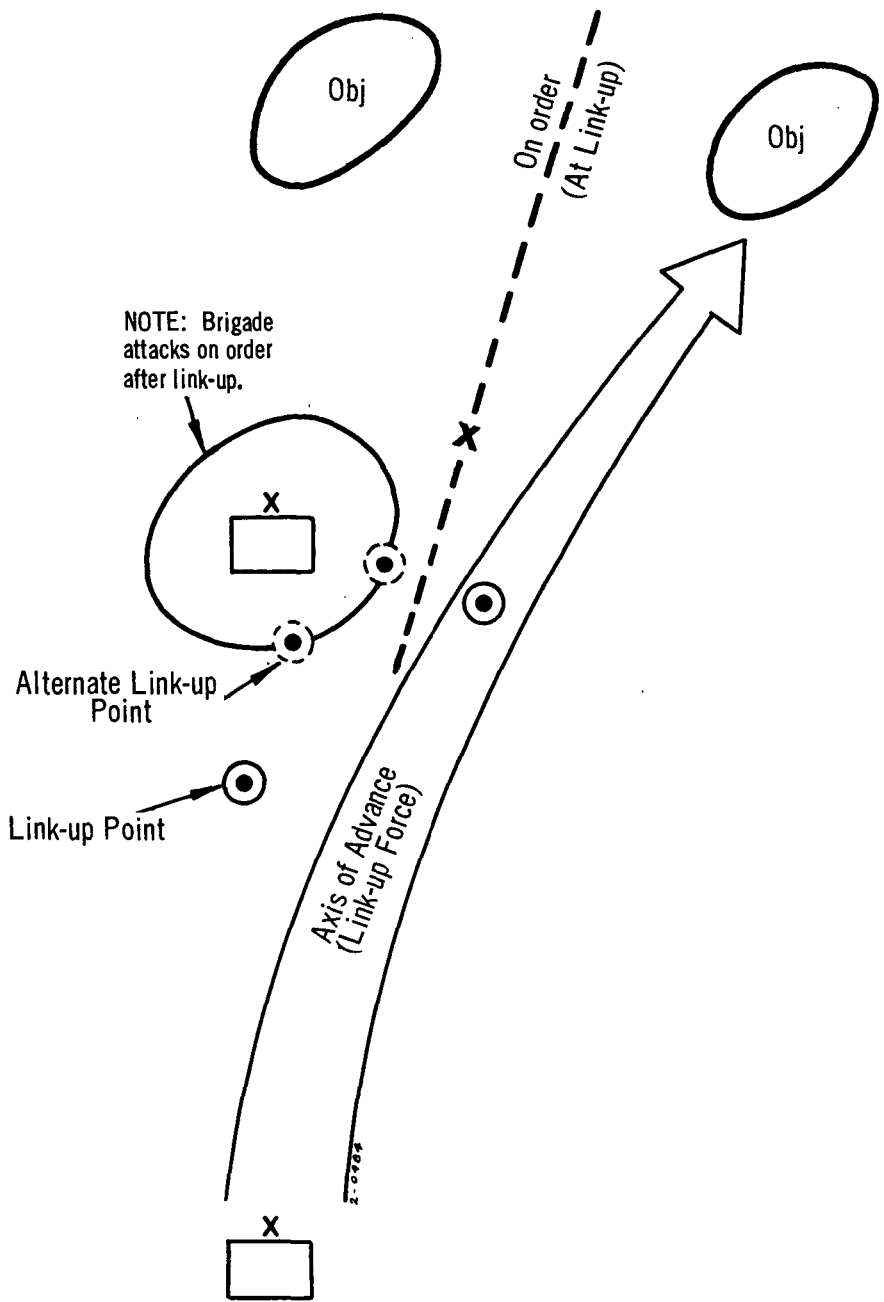


Figure 32. Coordination of maneuver during link up.

g. Actions To Be Taken Following Link Up.

- (1) Upon link up with the stationary force, the link up force may reinforce or assume the defense of the area, continue the attack in coordination with the stationary force or pass through or around the stationary force and continue the attack to more distant objectives (fig. 32). Provisions are made for relief in place or passage of lines as required. Since nuclear vulnerability is increased as link up occurs, particularly if the link up force passes through the stationary force, provisions for reducing the period of vulnerability or the density of troops and equipment in the area must be included in plans. Therefore, it is desirable that the link up force pass around the stationary force. Its objectives should be located well outside the area occupied by the stationary force.
- (2) In the case of a link up operation involving the breakout of an encircled force, the link up force (in this case the force breaking out) rapidly passes through the forward defense area of the stationary force to assembly areas in the rear. To speed passage and reduce the period of nuclear vulnerability, multiple routes are provided and suitable priority accorded elements of the link up force during movement to their assembly areas.
- (3) When two moving forces link up, normally only suitable control measures, such as boundaries and fire coordination, are prescribed, and the units continue on their assigned missions.

Section VII. RAIDS, FEINTS, DEMONSTRATIONS, AND RUSES

266. Raids

a. General. A raid is an attack by a force to accomplish a specific purpose within the enemy position with no intention of holding the invaded territory. Raids may be conducted within or beyond supporting distance of the parent unit either in daylight or darkness. The raiding force may move on foot, in tanks, armored personnel carriers, aircraft, watercraft, or any combination of these means. Raiding forces are particularly vulnerable if they are discovered prematurely, encounter superior forces, or if they are cut off.

b. Purpose. A raid may be conducted to—

- (1) Capture prisoners or specific enemy materiel.
- (2) Obtain or free key civilians such as scientists or political leaders.

- (3) Destroy specific enemy materiel or installations.
- (4) Obtain detailed information of hostile units, dispositions, locations, strength, works, capabilities, intentions, or methods of defense.
- (5) Deceive or harass the enemy.
- (6) Complete the destruction caused by nuclear fires.

c. Planning and Conduct.

- (1) Raids may be ordered by a higher echelon, by the division commander, or by a brigade commander.
- (2) Plans and preparations for raids are carefully made and all practicable measures of assistance are worked out and executed in detail. When possible, the raiding force rehearses the raid on ground similar to that over which it will move and under conditions similar to those anticipated during the actual raid.
- (3) Withdrawal of the force is planned and executed with the same care and thoroughness as the attack itself.
- (4) Security measures are emphasized because the raiding force enters the enemy position and is vulnerable to attack from all directions.
- (5) Preparatory and supporting fires, including nuclear fires, can be used as in any attack. Protective fires isolate the objective, prevent or limit counterattacks, and keep open the route of withdrawal. Under some conditions where surprise is sought either by stealth or rapidity of attack and withdrawal, fires are planned but held on call of the raiding force.
- (6) Night raids may be illuminated. The considerations of the night attacks (pars. 170–172), apply to their planning and conduct.
- (7) Infiltration enables the raiding force to attack deep objectives. Withdrawal of such a force may be expeditiously accomplished by the use of aircraft.
- (8) Raiding forces are frequently organized into task forces, particularly when the depth of the operation places them beyond supporting distance of their parent units.
- (9) Frequently deep raids may be assisted by friendly guerrillas. This assistance may include preparation of landing zones for aircraft and protection of the area during landing, guides and equipment bearers, diversionary operations, and the isolation of the area to be raided.

267. Feints

a. General. A feint is a shallow, limited objective attack to mislead the enemy and draw him away from the main attack. It may vary in size from a small raid to a sizable supporting attack. A feint may affect the ultimate development of the enemy force. It is most effective when the enemy has a large reserve, when there are several feasible courses of action open to the attacker, and when the force employed is of adequate strength and composition to cause the desired enemy reaction. Planning and conduct of feints are similar to those of other offensive operations.

b. Purpose. A feint is designed to cause the enemy to react in a manner predetermined by the attacker. The attacker may desire the enemy to react physically or to confuse him causing his reevaluation of the attacker's capabilities and intentions. The following are examples of enemy reactions which draw his defenses away from the main attack:

- (1) Employ reserve improperly.
- (2) Attract supporting fire away from the main attack.
- (3) Reveal defensive fires.
- (4) Frequent raids and feints may confuse the enemy and so accustom him to this type activity that little or no action may be taken when the main attack is actually launched.

c. Time.

- (1) *Time in relation to the main attack.* Feints may be conducted before, during, or after the main attack.
 - (a) A feint before the main attack may cause the enemy to move his reserve away from the area of the main attack, attract the enemy's supporting fires so that they may be located, and confuse him by frequent harassment.
 - (b) A feint conducted during the main attack may cause the enemy to divert his attention and, possibly his forces, including supporting weapons against the feint. Uncertainty in the enemy commander's mind as to which is the main attack may cause him to hold his reserve in its present position pending the outcome of either of the attacks.
 - (c) A feint conducted after the main attack is launched tends to cause the enemy to hold his reserve in its present position because of the new threat and the uncertainty as to the place of the main attack.
- (2) *Time of day.* The hour of the day for the feint is based on the time which most favors success of the main attack.

In addition, the pattern of previous operations is considered.

d. Place. The following are considered in determining the area for a feint:

- (1) Areas considered during initial planning for the main attack which were rejected are logical areas for feints.
- (2) The area must be of interest to the enemy.
- (3) The area should be at such distance to preclude interference with the main attack.
- (4) If the purpose of the feint is to cause displacement of enemy supporting weapons and troops, the feint should be conducted far enough from the enemy units to force their displacement.

268. Demonstrations

a. General. A demonstration is an operation designed to deceive the enemy by a show of force in an area where a decision is not being sought. It differs from a feint in that there is no advance against the enemy. The basic considerations and techniques of planning feints also apply to demonstrations.

b. Characteristics. Fewer troops are required for a demonstration than for a feint, and the force involved need not necessarily be balanced. Withdrawal of demonstrating forces and their subsequent employment elsewhere are possible. Demonstrating forces can make extensive use of fires, smoke, sonic devices, and decoy equipment. A demonstration lacks the realism of a feint and is more susceptible to identification by the enemy as a deception. It is not a positive means of causing the enemy to react.

c. Use. Demonstrations are particularly effective when the enemy and demonstrating forces are separated by an obstacle. They can be used to good advantage to depict the buildup for operations, such as river crossings or attack of fortified areas.

269. Ruses

Ruses are tricks to achieve deception. They are used at all levels in the division. The use of a few vehicles towing chains to produce dust clouds representing large movements and the movement of a few tanks throughout the area at night are examples of ruses. Ruses, such as the use of loudspeakers in the forward area, may divert the enemy's attention from other activities.

Section VIII. COMBAT AT RIVER LINES

270. General

The general considerations of combat at river lines are discussed in FM 100-5. Detailed information is contained in FM 31-60.

271. Attack

a. When the area through which the division is attacking contains an unfordable river, plans must include provisions to cross without loss of momentum or significant concentration on either bank. The river is approached at maximum speed on a broad front. All existing bridges in the zone of advance are objectives. When bridges cannot be seized intact, hasty crossings are made on a wide front capitalizing on the amphibian characteristics of armored personnel carriers, airmobile operations, nuclear fires, and improvised means. Advance planning for hasty crossings is essential.

b. A deliberate crossing is conducted when a hasty crossing has failed, when a hasty crossing is not feasible because of the difficulty of the obstacle or the strength of enemy defenses, or when an offensive is resumed at a river line. A deliberate crossing requires corps or army level coordination and concurrent, detailed planning at all levels.

272. Defense

a. The fundamentals of the defense of a river line by division are the same as for other defenses.

b. Unfordable rivers provide strength to the defense. An unwary enemy may mass troops and materiel in preparation for his crossing which then become remunerative targets for nuclear weapons. An attacking force astride a river is especially vulnerable to offensive maneuver.

c. Defense of a river line is organized to exploit the natural terrain features and the resources available. Only screening forces may be at the river line when the defense is being conducted primarily by nuclear fires and offensive maneuver.

d. The division, when defending a river line, should expect the attacker to move rapidly on a broad front and without pause to attempt to cross at multiple sites using amphibious vehicles, expedient crossing means, and helicopters. Because of the airborne or airmobile threat, the division must prepare plans for the protection of and counterattacks to regain key terrain well in rear of the river.

Section IX. COMBAT IN FORTIFIED AREAS

273. General

The general considerations of combat in fortified areas are contained in FM 100-5. Detailed characteristics of fortified areas and techniques of combat in them are contained in FM 31-50.

274. Attack

a. Whenever possible, fortified positions are contained by minimum forces while the main force continues the advance to seize more distant objectives. Reduction of a fortified area may include a siege or an attack from the rear.

b. The special considerations in the attack of a fortified area are as follows:

- (1) A primary purpose of a fortified area is to cause the attacker to mass and present a profitable nuclear target. Attack formations and operations must recognize this danger.
- (2) Nuclear and chemical weapons are used in the destruction and neutralization of fortified areas. Surface and subsurface nuclear bursts can create gaps in the fortified area or isolate sections of it.
- (3) Detailed intelligence is required upon which to base training, rehearsals, and plans.
- (4) Planning and preparation are centralized, but the execution is decentralized.
- (5) The area selected for penetration must be isolated. Nuclear fires are particularly well suited to this task. Smoke isolates individual strongpoints from the observed fires of other fortifications. Indirect fire weapons destroy camouflage, neutralize and destroy enemy field fortifications and artillery, fire on enemy counterattacks, and screen the movement of assault troops.
- (6) The assault elements are tailored to their specific missions and are specifically trained and rehearsed on replicas of the position. Their principal weapons are demolitions, flamethrowers, and direct fire weapons. A fortification neutralized by the assault element is immediately mopped up by a detachment of specially trained troops.
- (7) Reserves follow closely behind the assault echelon to exploit the penetration, maintain the continuity of the attack, or defend critical areas against counterattack.
- (8) Airborne or airmobile forces may be used in conjunction with other attacks of the fortified area principally to

block the movement of large enemy reserves and to attack the fortifications from the rear.

- (9) Unless required for use by the attacker, captured enemy armament and fortifications are moved or destroyed to prevent their use if recaptured.

275. Defense

a. The primary purpose of the defense of a fortified area is to cause the enemy to mass and present a nuclear target or to involve him in the reduction of fortified positions, thus dissipating his combat power and making him vulnerable to counterattack. Conversely, the enemy can readily destroy fortified areas with nuclear fires or by-pass and neutralize them at a later time.

b. The specific considerations in the defense of a fortified area are that—

- (1) Fortified positions permit an economy of force in the forward defense area. This releases proportionately larger forces for the reserve.
- (2) The reserve must be provided suitable mobility and be aggressively used if the defense is to be successful.
- (3) Fortifications are organized in depth and provide for all-round defense. Field fortifications supplement the fortified area.
- (4) The defense is conducted in the same manner as set forth in chapter 6. Defense of a fortified area is normally associated with area defense, not mobile defense.

Section X. COMBAT IN BUILT-UP AREAS

276. General

The general considerations of combat in built-up areas are contained in FM 100-5. Detailed characteristics of built-up areas and techniques of combat in them are contained in FM 31-50.

277. Attack

a. When possible, built-up areas are bypassed and isolated. When this is impossible, methods applicable to reduction of fortified areas are used.

b. Terrain dominating the approaches is seized to isolate the town. Mobile forces, including airborne or airmobile forces, are suitable for the seizure of such terrain. Objectives within the built-up area are selected to divide the enemy defense.

c. The advantages gained through the use of nuclear weapons and intense nonnuclear bombardments must be weighed against the creation of obstacles to the assault elements.

d. Measures to control the civilian population are essential.

278. Defense

a. Since built-up areas are obstacles to the movement of friendly counterattack forces as well as to the attacking enemy, consideration should be given to defending outside the built-up area. Under some conditions, elements of the division may hold towns while the remainder of the division counterattacks in the open.

b. The defense of a built-up area is organized around key terrain features which preserve the integrity of the defense and provide ease of movement to the defender. Subterranean systems may be used for the movement of forces and may provide protection against nuclear attack. They are incorporated in the organization of the defense. Maximum use is made of rubble and other obstacles. Defenses are prepared in depth for continuous defense throughout the area.

c. Plans should provide for the control of the civilian population, and the use of friendly elements in the preparation of defensive positions. Evacuation of civilians from the area should be considered.

Section XI. COMBAT IN EXTREME TERRAIN AND WEATHER CONDITIONS

279. General

a. The division is generally organized and equipped for combat in extreme terrain and weather conditions. Under certain circumstances, additional or substitute equipment and specialized training may be required. There is usually a requirement for increased engineer means and logistical support.

b. Difficult terrain may tend to slow the momentum of the division's operation or canalize its movement with an increase in the susceptibility to location and identification by the enemy for attack by nuclear weapons. In some instances, however, this terrain may provide natural concealment and protection from the effects of nuclear weapons.

c. The use of difficult terrain by the division may increase the opportunities for surprise. Areas of difficult terrain favor infiltration, raids, and guerrilla operations.

280. Woods, Swamps, and Lake Areas

a. Operations in woods, swamps, and lake areas in some respects are similar to those in fortified or built-up areas. Extended and dense woods provide good concealment and camouflage but limit visibility and fields of fire and hamper observation and control. However, large swamps or lakes within the area may provide good observation and fields of fire. Woods limit mobility. Trafficability in swampy areas is changeable as a result of rain, dry weather, or freezing. At times a swamp may be impassable; at other times, it may be an excellent route of advance. Similarly, frozen lakes can be used as routes of movement. Nuclear weapons used in wooded areas may create extensive blowdown or, when conditions are favorable, cause forest fires; in winter they may be used to break the ice on water bodies used as lines of communication.

b. Woods and swamps favor raids, infiltration, and guerrilla operations. Some woods, because of their size or location, are naturally strong defensive areas. Small wooded areas in open terrain are easily neutralized by fire or smoke.

c. Whenever possible, heavily wooded areas, swamps, and lake areas are bypassed. If it is necessary to clear such an area, it is encircled by mobile units and cleared by infantry.

d. The use of extensive wooded areas may add strength to a defense. However, such areas generally are not conducive to a defense based on maneuver. Further, the fire hazard of enemy nuclear weapons must be carefully considered.

281. Steppes

a. Steppes are vast areas of southeastern Europe and west-central Asia. They are flat, broken only by ravines in many cases having high, steep slopes overgrown with brush and thickets and some isolated clumps of trees. The steppe grass can provide concealment for individuals, but concealment for vehicles, tanks, artillery pieces, and similar materiel is limited. Except for ravines, there is no natural cover. Water supply on the arid steppe is difficult.

b. From late spring to early fall, the trafficability of the steppes is ideal for motorized and mechanized operations. The only obstacles are the ravines. During the summer the steppes are dry and susceptible to fires; either nuclear weapons or incendiaries may cause large fires destructive to troops and supplies. Summer operations are influenced by dust which affects vehicles and makes it difficult to conceal movement. Winters are severe. There are no natural means of breaking the wind or banking snow which

is whipped across the plains. There is a constant struggle against drifting snow. Trafficability in winter, while not ideal, is good. During the thaws, the ravines become streams, small depressions become ponds, and large areas of flatland are covered with water. The thawed ground is soggy. Movement is exceedingly difficult.

c. Operations on steppes are influenced by—

- (1) Lack of cover and concealment against air attack.
- (2) Increased need for security and deception measures because of the difficulty of concealment.
- (3) Increased problems of administrative support.
- (4) Increased emphasis for speed of movement, and the accompanying requirement for additional means of mobility.
- (5) Increased reliance on mines or surface burst nuclear weapons to impede or canalize enemy movement.
- (6) Danger of steppe fires during the dry season.
- (7) Problems created by dust.
- (8) Cold weather problems.
- (9) Mud.

282. Mountains

a. The general considerations of mountain operations are contained in FM 100-5. Detailed information on mountain operations, the employment of the arms and services, and training are contained in FM 31-71 and FM 31-72.

b. Only minor modifications are required in the organization of the infantry or airborne division for combat in the mountains. Increased emphasis is placed on supply and movement by Army aircraft and the elimination of vehicles and weapons not suited to the terrain. In some areas, animal transport may be available from local sources. In alpine terrain, specialized technical training and equipment are required.

c. Decentralized command is essential in mountain combat.

d. Time and space factors vary with the configuration of the terrain, altitude, scarcity of roads, and season. Movement is measured in time rather than distance. Orders are issued early because of the longer time required and increased difficulty to move units and supplies.

e. Deployment of forces is restricted by the terrain. Small forces can impede, harass, or prevent the movement of large enemy forces. Frequently, mutual support between adjacent units

is limited or impossible. Movement and employment of reserves are slow and difficult.

f. Tanks in substantial numbers are usually of limited value in mountain terrain but their use must be exploited where possible. The use of heavy infantry weapons and artillery is hampered by their bulk and weight, considerable dead space in their fields of fire and difficulty of observation. However, high-angle fire weapons assume major importance in support of units operating on heights. The importance of close combat increases as the value of other methods of combat decreases.

g. Attacks are characterized by centralized planning for execution by semi-independent tactical groupings. Objectives are frequently the heights which dominate the passes and permit movement through the mountains. Each dominant height must be secured before movement to the next. Whenever possible, attacks should strike the enemy in the flank or rear. Surprise may be achieved by movement of small, mountain-trained forces. Movement of counterattacking forces is slow and difficult; timing is highly important.

h. Mountainous areas favor guerrilla warfare.

283. Deserts

a. The general considerations of desert combat are contained in FM 100-5. Detailed information on desert operations, the employment of the arms and services, and training are contained in FM 31-25.

b. The doctrine expressed in chapters 5 and 6 for offense and defense apply without change in desert operations. The freedom of movement afforded by the desert, however, increases the depth of objectives and the frontages of units, and generally favors the use of wide envelopments and turning movements by highly mobile forces. The lack of concealment increases the need for dispersion and deceptive measures.

c. Administrative support problems are increased in the desert as a result of the great distances involved, extremes of temperature, sand or dust, shortage of water, and increased maintenance requirements.

284. Jungle

a. The general considerations of combat in the jungle are contained in FM 100-5. Detailed information on the characteristics of jungles, the employment of the arms and services, and training are contained in FM 31-30.

b. Combat in jungles is conducted at extremely close quarters by relatively small bodies of troops. Proper training and conditioning of troops to jungle conditions, together with suitable equipment and initiative of individual and small unit leaders, are essential. Control of units and observation are difficult.

c. Administrative support problems are increased in jungle operations. Supply and evacuation by air are of great value. Maintenance of equipment is difficult. Sanitation and health measures are important and must be rigidly enforced. Engineer requirements are increased. Signal communications are more difficult (par. 80).

d. Roads, trails, and rivers are key terrain in jungle operations.

e. Vegetation and lack of observation increase the need for security which often can be obtained only through the use of security detachments.

f. Airborne and airmobile forces can be used to outflank enemy defensive positions.

g. Jungle areas are conducive to raids, infiltrations, and guerilla warfare.

285. Defiles

Defiles are natural or artificial terrain features which canalize movement. Major forces passing through a defile are vulnerable to air and nuclear attack. Suitable air defense measures must be provided the division from higher echelons. In addition, provisions must be made for the rapid uninterrupted passage of units. This involves the use of highly mobile forces including airborne and airmobile units to reconnoiter the defile and establish suitable security in, or on its flanks and at its exit. Surveillance and aerial reconnaissance are valuable in warning of the approach of enemy units. Close command control and absolute control of traffic must be exercised to prevent inadvertent concentration of the division in the defile area. The traffic control plan for such operations must be prepared in minute detail.

286. Northern Operations

a. General considerations of northern operations are contained in FM 100-5. Detailed information on the arctic and subarctic areas, the employment of the arms and services, and training are contained in FM 31-70 and FM 31-71.

b. The division, when conducting operations in northern latitudes, requires specialized training and special equipment.

c. Offensive and defensive operations are conducted as in other climates. They are, however, affected by considerations which include long hours of daylight and the heat and dust of summer, long nights and bitter cold and storms of winter, mud and morass of the transition periods of spring and autumn, the disrupting effects of natural phenomena, the scarcity of roads, and vast distances and isolation. These considerations adversely affect but do not totally restrict mobility, firepower, and communications. The ability to move cross country is essential in all operations.

d. Training, equipment, and techniques of the division when operating in northern latitudes are affected by the following factors:

- (1) *During the winter.* The cold and snow create a constant need for heated shelter, cause difficulty in constructing fortifications, increase dependence on administrative support, and require special winter clothing and equipment. The division must be trained in the use of oversnow equipment including skis and snowshoes. Aircraft can use frozen lakes and rivers for landing areas. Wheeled vehicles can be used on frozen ground and frozen lakes where the snow cover is small. Thickness and type of ice determine the size and weight of vehicles that can use a lake surface as a roadway. Wheeled vehicles should be used wherever practicable.
- (2) *During the summer.* Extensive swamps, muskeg areas, lakes, and rivers require special equipment such as boats and low ground pressure vehicles. Almost continuous daylight requires special care in movement. Aircraft equipped with floats can use lakes and rivers as landing areas.
- (3) *During the spring breakup.* Thaws weaken ice on waterways and swamps. Roads become impassable and the surface of the ground thaws. The resulting poor trafficability may seriously reduce surface movement.
- (4) *During the fall freeze.* The ground and waterways frequently freeze prior to heavy snowfall, increasing cross-country mobility. Early heavy snows, however, insulate the ground and delay its freezing. This condition impedes mobility.
- (5) *During all seasons.* The scarcity of roads affects large-scale operations and increases the difficulty of administrative support. Limited map coverage causes the need for effective navigation and control measures.

287. Snow and Extreme Cold

a. The general considerations of combat in deep snow and extreme cold are contained in FM 100-5. Detailed information on operations in snow and extreme cold is contained in FM 31-70 and FM 31-71.

b. Conditions of extreme cold and snow are encountered during the winters in some parts of the Temperature Zones and at high altitudes. Techniques applicable to northern operations are adapted as appropriate during combat in Temperature Zone winters.

c. During operations in deep snow the division should be provided suitable oversnow mobility including oversnow and tracked vehicles, sleds, skis, and snowshoes. Provisions must be made for suitable snow clearance from roads and trails.

d. During periods of cold, suitable safeguards for the prevention of cold casualties must be enforced. Suitable clothing and enforcement of clothing discipline are essential. Heated shelter must be available to all troops. Units and individuals should be frequently rotated from duties in exposed areas where individual and unit cold casualty protective measures are difficult or impossible to accomplish.

288. Mud

a. Mud is encountered for extended periods of time during spring thaws and during rainy seasons throughout large areas of the world. Unsurfaced roads become impassable and the countryside turns into a morass. Such a condition seriously impedes and, in some cases, stops ground movement and hinders both operations and administrative support activities.

b. The inability to move counterattack forces on the ground and the slow rate of movement of enemy forces may tend to cause defensive operations to become static in nature. Offensive action may consist of successive limited objective attacks.

Section XII. SITUATIONS SHORT OF WAR

289. General

a. Military contingencies arising from cold war will often require the division to conduct operations short of overt war. These types of operations are referred to as situations short of war.

b. Its organization and wide range of available combat power enable the division to adapt itself to the variety of conditions

which it may encounter. It can be employed independently or as part of a larger force. When employed independently, the division should be reinforced to insure its sustained logistical support.

c. In preparation for, and execution of, a mission of this type, the division commander should indoctrinate all personnel in civil-military relations, the limitations on application of force, and social conditions, customs, and political situation in the area of projected employment. He should also emphasize training in riot control, extensive patrolling, counterinfiltration, and widely dispersed operations. Commanders must insure proper conduct of their troops since misconduct may seriously affect relationships with the host country.

290. Special Considerations

a. *Limitations on Authority.* When employed on foreign soil in a situation short of war, specific limits are set on the authority of the division commander and on the individual commanders of divisional elements by international agreements, such as the status of forces agreements, promulgated at the national level for the particular area of operations. These limitations will often restrict the tactical freedom of action of the unit commander and at times seriously reduce the effectiveness of his unit. These are major considerations and may dictate the force to be employed or the manner of its employment. Examples are restrictions on the use of firepower, roads, buildings, installations, railroads and terrain. Civil officials of the host nation usually retain their authority, thus requiring time-consuming coordination procedures to insure the maintenance of good relations with the local populace.

b. *Civil Affairs.* The division and subordinate commanders must place special emphasis on the civil affairs (CA) aspects of their missions. CA personnel and teams especially trained in CA operations are placed with key civilian control agencies to provide continuous liaison and to insure good relations. The division is reinforced with appropriate CA units in preparation for such missions. The impact of the limitations on authority discussed in *a* above is reduced by efficient CA operations. At division level, the CA annex to the operation order implements the provisions of existing status of forces agreements, if any, or other international or local agreements.

291. Operations

a. *General.* The division operating in a situation short of war will be confronted with a wide range of unpredictable factors: local political conditions regarding local and U.S. 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.

b. Planning.

- (1) In a situation short of war, the division is involved in preparing plans for three types of conditions: conduct of current operations and training, planning for future situation short of war missions, and planning for future combat operations in event of war. This planning effort will occupy much of the staff's time at division and subordinate levels.
- (2) The TOC is used to supervise the execution of the current mission and training. Plans for training include provision of time, facilities, and areas for individual and unit training aimed at the maintenance of combat proficiency.
- (3) Planning for future missions in situations short of war and for future combat operations in event of war is initiated at the earliest opportunity, and is conducted continually and concurrently with the execution of current security missions and training. Operational plans are rehearsed when time and the situation permit and revised in accordance with current intelligence reports.

c. Training. If the division is committed to a situation short of war mission for an extended period of time, its capability for coordinated combat action must not be allowed to suffer as a result of personnel losses and lack of training for combat skills. Therefore, individual and unit training exercises must be planned and conducted concurrently with the execution of the mission. Reserves at all echelons should be kept active and proficient through participation in these training exercises. Rotation of reserve elements with those required to be committed can insure effective periodic combat training of units through battalion level.

d. Control. If the division is deployed over a wide area in a situation short of war, the problem of control is increased. Major subordinate commanders normally are free to act within the limits of U.S. military policies and international agreements. The deployment of the division may exceed the capabilities of the organic communication systems because of distances and terrain. The division may be augmented with additional Signal Corps units. Commerical communications may be limited or nonexistent.

e. Administrative Support.

- (1) Certain aspects of administrative support for operation

in situations short of war require special consideration. If the division is held relatively concentrated, the administrative support problem is minimized. However, when the division's elements are widely deployed, the distances involved present conflicting requirements for transportation and security. The desirability of concentrating to increase security of administrative units and supplies is balanced against the need to fragment supply points and maintenance units to make support readily available to the user and to reduce transportation and distribution requirements. Decisions are based on the number of troops available for security missions, supply distance, and the amount of transportation.

- (2) Administrative support plans for future combat operations must provide for area damage control. Intelligence efforts should be directed toward revealing the enemy's potential for infiltration operations and nuclear warfare, both of which will offer major threats to division operations.
- (3) The deployment of administrative support units and supplies must support the division's mission and minimize the need for major relocation to support the various operational plans.

292. Unit Capabilities

a. The subordinate units of the division have characteristics and capabilities which make them particularly adaptable to the varied operational requirements in situations short of war.

- (1) The infantry and mechanized infantry battalions provide the bulk of the troops necessary for patrol operations (mounted or dismounted), area search and security, outposts, strongpoints, and control posts, and for action in mountainous terrain, jungle, or swamp. These battalions are well suited for the control of mobs and for the suppression of riots and civil disorder. One or more battalion task force on parade makes an impressive local show of force. The timing and route of march are carefully selected for maximum effect. Mobile combined arms teams formed from units organic to the division provide the basis for quick application of measured force.
- (2) The armored cavalry squadron, because of its organization, mobility, and excellent communications, provides reconnaissance and security forces capable of being de-

ployed over wide areas. It is also well suited for a show of force and riot control.

- (3) The tank battalion is an excellent show of force unit. Reinforced with mechanized infantry, tank units provide powerful mobile forces with extensive communications. When employed with dismounted infantry, tanks are effective in quelling riots and civil disturbances without resorting to their full firepower capability.
- (4) The division aviation battalion conducts day and night surveillance operations over wide areas and provides liaison and courier service. It operates from hastily prepared airstrips within protected areas. Army aircraft are used to supply isolated outposts and detachments located away from the major elements of the division. Army aircraft are used to disseminate leaflets and loudspeaker messages to assist in controlling the civilian population or to support progaganda efforts.
- (5) The engineer battalion may be required to construct or supervise the construction of airfields, fortifications, barriers, brigades, and roads, and to perform mine detection and removal. It provides technical assistance to civil agencies. In emergencies it may be employed on security and riot control missions.
- (6) The signal battalion normally is required to provide a signal communication network. Extensive reliance is placed on radio because of problems involved in maintenance of wire communication systems, particularly in partisan infested areas. Signal communications with subordinate elements are maintained over extremely wide areas by use of radio relay.
- (7) When the disposition of forces and terrain permit, artillery support is provided to outposts and detachments. Organic nuclear weapon delivery means are particularly effective in a show of force. When not required in its primary role, the division artillery is capable of executing security missions as a major subordinate element of the division.
- (8) Administrative support units may provide humane relief services such as the issue of food and clothing and medical treatment of the population in support of CA operations. Rendering assistance of this type entails a command decision and normally will be limited in scope. When adequate units and supplies are available, such action may influence accomplishment of the division mission.

- (9) The military police company, cooperating with civil police, can materially further the accomplishment of the division mission through control of division personnel and vehicles and through specific assistance to civil authorities.
- (10) The attached CA unit provides the division commander with an agency for the conduct of required CA operations including community relations, liaison, advice, and assistance to the civilian population, its government, and institutions.
- (11) Combat units and Army aviation can employ irritant chemical agents against riotous or hostile personnel.
 - b. Air transportation of units speeds their employment and redeployment over wide areas when sufficient organic or supporting aircraft are available.

Section XIII. GUERRILLA WARFARE

293. General

a. Guerrilla warfare is conducted primarily by indigenous forces organized on a paramilitary or military basis to attack, harass, and delay the enemy. Guerrillas may or may not operate in conjunction with friendly conventional forces and special forces. Guerrilla operations may also include tactics such as passive resistance, espionage, subversion, sabotage, diversion, reprisal, and propaganda.

b. The division may conduct operations in conjunction with friendly guerrillas. Under exceptional circumstances, as in the case of bypassed forces, elements of the division itself may conduct guerrilla type operations. The division must protect itself of all times against hostile guerrillas and may be committed to the reduction or elimination of large-scale guerrilla activity.

c. The purpose of this section is to discuss operations in conjunction with friendly guerrillas and the use of the division in operations against guerrilla elements of irregular forces. The protection of the division against guerrilla attack is contained in chapter 6.

d. Additional information concerning guerrilla and counter-guerrilla warfare and operations against irregular forces is contained in FM 31-15, FM 31-21, and FM 31-21A.

294. Operations in Conjunction With Friendly Guerrillas

a. *General.* If the division area of influence overlaps an area

in which United States sponsored guerrillas are operating, the division may request that the guerrilla forces execute missions which assist its operations. When link up with United States sponsored guerrilla forces becomes imminent, operational control of the guerrilla forces normally is exercised by the commander of the U.S. force in whose area of responsibility the guerrilla forces are operating. This operational control continues after link up until tactical developments dictate otherwise. Upon link up, guerrilla units may be attached to the division, permitted to disband or otherwise employed.

b. Special Forces. Normally, guerrilla forces are coordinated by special forces operational detachments. When this is the case, a special forces liaison party assists the division commander by advising on the status of the guerrilla force, recommending appropriate exploitation of its capabilities and providing communications with the special forces operational detachments accompanying the guerrilla force. When special forces detachments are not available, the division coordinates directly with the guerrilla force commander or provides liaison parties to his force.

c. Considerations in the Use of Guerrilla Forces. The organization, method of operations, capabilities, and limitations of the guerrilla force must be known by all commanders and staffs dealing with the force. Problems of supply and support must be anticipated. The existing guerrilla SOPs, ranks and grades, and organizational structure must be respected. Recognition by award of decorations or other expression of appreciation is essential to the maintenance of guerrilla morale. Plans must include provisions for overcoming language barriers.

d. Missions for Guerrilla Forces. Missions assigned to guerrilla forces must consider the guerrilla units' equipment, state of training, organization, and available logistical support.

(1) Missions before link up include—

- (a) Raids.
- (b) Interdicting of enemy lines of communications.
- (c) Assisting division patrols, raiding parties, and attack by airborne and airmobile forces.
- (d) Gathering information, including the location, size, and composition of potential targets.
- (e) Reporting damage information.
- (f) Employing chemical and biological agents.
- (g) Destroying critical targets.

- (2) Missions during the period of link up include—
 - (a) Interdiction of the division's area of operations.
 - (b) Assistance in, or the seizure of objectives and prevention of enemy destruction of key installations.
- (3) Missions after link up include—
 - (a) Guides and patrols.
 - (b) Protection of exposed flanks and gaps.
 - (c) Mopup of areas bypassed by division units.
 - (d) Conventional combat, providing the force's training and organization permit.
 - (e) Assistance to CA units.
 - (f) Assisting in the apprehension of collaborators and spies.
 - (g) Protection or guarding bridges, defiles, supply dumps and other vital areas.

e. Assistance to Friendly Guerrilla Forces.

- (1) Prior to link up, guerrilla forces are provided logistical support by special forces. In addition, they make maximum use of supplies obtained from civilian and enemy sources. Upon link up, logistical support of these forces may be the responsibility of the division. Logistical support may include, but is not limited to, medical supplies, communication equipment, arms and ammunition, hospitalization and evacuation, and, under some conditions, transportation. In a highly developed force there may be a requirement for motor vehicle fuel. Maximum use should be made of captured stocks.
- (2) Communication equipment normally is provided by special forces. The division, however, insures that upon link up the communications available to the guerrilla force are adequate for anticipated missions, and the division provides suitable maintenance and expandable supplies.
- (3) Guerrilla forces may be reinforced with fire support, aviation, and other tactical and tactical support elements as required. If the mission assigned a guerrilla force entails conventional type combat, adequate support, particularly artillery and antitank protection, is provided. Prior to link up, airborne, airmobile, or surface-infiltrated elements of the division may assist guerrilla units in the accomplishment of specific missions.

f. Demobilization. Division CA units assist in the reorientation, demobilization, and integration of guerrilla forces into the civilian environment when the need for such forces no longer exists.

295. Operations Against Irregular Forces

a. General.

- (1) Division missions in operations against irregular forces may include—
 - (a) Offensive action to destroy or capture guerrilla elements of such forces.
 - (b) Control of a hostile populace to prevent aid to such forces.
 - (c) Security of vital military and civil installations.
- (2) The division may conduct such operations as a part of a regularly assigned mission, or it may conduct this type operation as a primary mission.
- (3) Operations to eliminate bypassed enemy conventional forces may resemble combat operations against irregular forces.
- (4) FM 31-15 covers operations against irregular forces in detail.

b. *Employment of Divisional Units in Operations Against Irregular Forces.*

(1) General.

- (a) In operations against guerrilla elements of irregular forces the division makes maximum use of small, highly mobile, combined arms task forces which can find, fix, and fight elusive guerrilla forces.
 - (b) Airborne and airmobile forces may be used to advantage in such operations. They may be landed inside the security perimeters of the guerrillas, thus increasing surprise. Use of airborne and airmobile forces permits encircling movements that might not be possible by ground movement. They may be used to cut off guerrillas being pursued after an attack or to relieve a distant detachment besieged by guerrillas.
- (2) *Airborne and infantry battalions.* Difficult terrain favorable to, and operated in by guerrilla forces causes prime reliance to be placed upon the foot soldier in operations against irregular forces. The airborne and infantry battalions form efficient nuclei around which mobile task forces can be formed.
 - (3) *Tank battalion.* The mere presence of armor is demoralizing to guerrilla forces. Armored vehicles offer protected communications, effective mobile roadblocks and convoy escorts. Armor used against guerrillas must be

closely supported by infantry. Guerrillas may be skillful at improvising means to destroy or cripple tanks, and may have effective antitank weapons.

- (4) *Mechanized infantry battalion.* Where terrain permits their use, mechanized infantry units are employed to increase the mobility of task forces operating against guerrillas. The armor protection and mobility afforded by the armored personnel carrier permit rapid redeployment of units between those areas where troops are required to fight on foot. Armored personnel carriers may be required for resupply purposes when supply routes to dispersed positions are not fully controlled by the division.
- (5) *Armored cavalry squadron.* The armored cavalry squadron is well suited to operations against guerrilla elements. The extensive signal communications system and mobility of the squadron enhance its ability to perform the necessary reconnaissance and security type missions.
- (6) *Division artillery.* The disposition and tactics of guerrilla forces seldom present mass targets to artillery. Rather, many small and fleeting targets are presented. Artillery control is decentralized to support the operation of widespread mobile task forces until such time as the guerrilla forces are compressed into target areas that warrant massed fire.
- (7) *Aviation battalion.* In addition to movement and resupply of troop units involved in operations against irregular forces, the division aviation battalion is a principal means for collection of intelligence information concerning guerrilla operations. The aerial surveillance platoon can quickly develop suspect areas which can then be reconnoitered by ground elements if required. This procedure adds direction to the ground reconnaissance effort by placing it in areas where guerrilla forces are most likely to be found. Armed helicopters may be employed to interdict movement of located guerrilla elements.
- (8) *Attached and supporting elements.* When engaged in operations against irregular forces, the division is normally assisted by CA units, U. S. Army Security Agency units, and intelligence and counterintelligence units. In addition, military units and installations in the area provide their own local security and assist in the detection and warning measures of the area. Local civilian police or gendarmerie forces may secure vital civilian installa-

tions and protect the local populace. If the enemy guerrilla units are being assisted by a sponsoring power, air defense and air units assist the operation by detecting and destroying enemy aircraft involved in supplying these units.

- (9) *Special units.* When the division is committed to operations against guerrilla elements of irregular forces for an extended period, special antiguerrilla units may be organized, equipped, and trained to combat guerrilla forces by using guerrilla methods. Under many conditions, these units are more effective than larger conventional troop units. To prevent detection, they avoid contact with the local populace. They move at night and remain in concealed camps during the day. Through necessity, most of their operations are conducted during darkness. At frequent intervals, specifically after an encounter or upon detection, they move to new concealed camps.
- (10) *Administrative support elements.* Administrative support installations must be located to support dispersed operations. When operations are conducted against guerrilla redoubts and safe areas, the difficult terrain makes supply and evacuation of division elements a problem. Maximum use is made of organic and supporting aircraft to accomplish these functions. When supply by air or other means is infeasible, the division must resort to hand-carry. Since this system is slow and costly in manpower, maximum use is made of available local labor.

CHAPTER 10

TROOP MOVEMENTS

Section I. BASIC CONSIDERATIONS

296. General

a. The primary consideration in troop movements is to insure that troops arrive at the proper place, at the proper time, in effective condition, and in the best formation to accomplish their assigned mission. In nuclear warfare particularly, commanders must move their troops from dispersed positions to the critical point of decision and deploy them without forming a remunerative target for the enemy's nuclear delivery means.

b. The division support command commander advises the division commander and staff on matters relating to the employment, capabilities, and limitations of organic and attached administrative support transportation.

c. The division engineer advises the division commander and staff on matters relating to the condition, capabilities, and limitations of the road net.

d. The division provost marshal has operational control of the division military police in directing and controlling movement on the road.

e. Functions of staff officers concerning troop movements are described in FM 101-5.

297. Classification of Movements

Troop movements are classified as tactical or administrative. They can be further classified as to transportation means employed.

a. *Tactical.* A tactical move is one conducted with primary emphasis on movement in combat-ready formations. Tactical moves are based upon the assumption of early ground contact with the enemy, either en route or shortly after arrival at destination. Under these conditions, the most efficient use of transportation means is frequently sacrificed to tactical considerations.

b. *Administrative.* An administrative move is one conducted with primary emphasis upon efficient use of available transportation. Such moves ordinarily are based upon the assumption that

contact with the enemy is remote while en route and shortly after arrival at destination.

298. Plans

Carefully prepared and detailed plans are necessary to efficient troop movements. Units are given timely notification of impending movements in order to permit proper preparation. Factors which must be thoroughly considered and evaluated include—

a. Organization of troops and equipment to meet the requirements of the tactical situation while best utilizing available transportation.

b. Assembly of troops and transportation.

c. Packing and marking of equipment and loading of personnel and equipment.

d. Control and administrative support en route and at destination.

e. Assembly of personnel and equipment in the desired formation at destination.

f. Adequate security en route and at destination.

g. Influence of climate, seasons, weather, and adequacy of the transportation net.

299. Control and Coordination

a. The special staff function of transportation is an integral function of the G3 and G4 sections.

b. The movement of tactical units, to include transportation required to supplement their organic transportation, is planned, coordinated, and controlled by the G3.

c. Logistical and other administrative movements are planned and coordinated by the G4.

d. Close coordination is effected with the support command (ADSOC when activated) by both G3 and G4 since the support command coordinates and controls the employment of transportation units.

e. The support command commander controls transportation units assigned or attached to the division. He provides advice to both G3 and G4 on the transport capabilities of the support command.

300. Use of Means

Within the limits prescribed by military necessity, troop movements must fully utilize transportation means. This fundamental

principle is paramount in administrative moves. It must always be considered in tactical moves.

301. Security

Security and security planning are essential to troop movement in order to avoid surprise, attack, and compromise of plans.

302. Training and Standing Operating Procedures

To expedite movement, individuals and units train for all types of movement. Unit SOP's include methods and techniques for using each mode of transportation which the unit may be expected to employ.

Section II. TACTICAL MOTOR MARCHES

303. General

The movement of a division requires detailed planning. The time available for issuing orders normally is short, yet they must be disseminated throughout the division. Time is saved by practice and experience and by including all possible details in the division SOP. Details of planning and executing marches are contained in FM 25-10 and FM 101-10.

304. Preparation for the March

Proper organization for movement requires that the force be organized into manageable movement echelons. Unit integrity is preserved as much as possible. When movement groups are composed of troops from more than one unit, a single commander is designated. Subgroupings should consist of units under their own commanders. Preparation for the march requires that the following steps be accomplished. Many of the steps should be included in the division SOP.

a. Issue a warning order.

b. Make a map reconnaissance. Ground and air reconnaissance of the routes and the new area are made when possible.

c. Select (if not specified by higher headquarters) and clear routes.

d. Designate the initial point (IP) and release point (RP).

e. Reconnoiter the route to the IP.

f. Establish necessary liaison.

g. Provide for maintenance, supply, evacuation, and refueling.

h. Determine the order of march, rate of march, maximum speed of vehicles, distance or density, phase lines and control or check points (if used), and halts.

- i.* Provide for air, ground, and communication security.
- j.* Issue strip maps when practicable.
- k.* Dispatch advance parties, such as quartering and reconnaissance.
- l.* Provide for traffic control.
- m.* Determine signal communication channels to be used for control and any restrictions on their use.
- n.* Issue the operation order.

305. Warning Order for the March

The warning order alerts units for the impending move. It is issued as soon as the first information concerning the move is received. Additional information of importance is disseminated as it is received. If the information is available, the warning order includes the destination, time and date of departure, purpose of the move, and other essential information. Subordinate commanders are given as much time and information as soon as possible to make preparation, plans, and reconnaissance. The warning order normally is issued as a fragmentary order and may be either written or oral.

306. Reconnaissance of Routes

a. The assignment of routes to subordinate units depends upon the mission of the unit, enemy capabilities, and the nature of the route. Consequently, all routes under consideration by the division should be reconnoitered. Speed of movement is closely related to the accuracy of reconnaissance.

b. The armored cavalry squadron, aviation battalion, military police company, and engineer battalion conduct route reconnaissance in conjunction with other functions. Battalion armored cavalry (reconnaissance) platoons are also used. When a special need for route reconnaissance arises, these units, as appropriate, provide the specific assistance required. The capacities of underpasses, bridges and culverts, ferries, fords, and routes are determined by reconnaissance; units with loads exceeding these capacities are rerouted. Reconnaissance also determines critical points and obstacles so that congestion can be prevented and local security can be provided. Organic photographic facilities of the division enhance its route reconnaissance capability.

307. Selection of Routes

a. The selection of routes is an important factor in successful marches, especially when the march is to be extremely long or is to be made during darkness or adverse weather.

b. To reduce vulnerability to nuclear fires, the division uses multiple routes including cross-country. This allows moves to be completed more rapidly and provides dispersion, versatility, and mutual flank protection.

c. When moving on multiple routes, elements of the division often use secondary roads. Provision is made for engineer support if required. Care is exercised to assign routes that are suitable to the various division loads.

d. The overriding consideration in the selection of routes for a tactical march is the mission. The routes that best serve the mission are the ones selected. Military police are provided for control purposes during the move. Provision is made for the necessary engineer support to clear obstacles, if clearing these obstacles exceeds the pioneer capabilities of the tactical unit.

e. When selecting a route, a commander insures that all type vehicles in his column can negotiate the route. It may be necessary to march certain vehicles over separate routes.

308. Division Planning Considerations

a. The following calculations are involved in determining the time required to complete the move of the division :

- (1) *Preparation time*, is the time from receipt of the order to move until the first vehicle crosses the start point (SP) FM 101-10 contains experience factors.
- (2) *Time distance*, is the time required to travel between two given points (usually from the SP to the RP).
- (3) *Time length*, is the length of time required for a column to pass any given point

b. Determination of the time that the division can begin execution of a mission includes the time required to accomplish certain necessary tasks at the end of the march. These tasks include final reconnaissance, refueling, and movement to the line of departure. Units not needed immediately at the destination are not considered in the calculation of the time that the division can begin execution of its mission. The G3 plans backward from the scheduled time of beginning execution of the mission to determine the time that the division should commence movement.

c. Tables, graphs, and other aids based upon the division's experience simplify movement calculations. The most important of these aids are :

- (1) Table of precalculated road spaces and time length for division units.

- (2) Table of simplified formulas for road spaces and time lengths.
- (3) Table of time distances.
- (4) Table of average time factors.
- (5) Road movement graphs.
- (6) Road movement tables.
- (7) March calculators.

d. The vehicle availability status of divisional units changes frequently. Likewise, the organization for combat varies with the tactical situation and the mission. Consequently, commanders and staff officers must know the current status of vehicles. Each headquarters should frequently ascertain the status of vehicles of the next lower command echelon and determine the current time length and road space of each unit.

309. Designation of the Start Point

a. The purpose of a SP is to provide all units of a march column a common point from which to start their movement. When more than one route is being used, a SP is designated for each route. The SP must be a place along the route of march which is easily recognizable on the map and on the ground and readily accessible, such as a road intersection. It should not be located in a defile, on a hill, or at a sharp curve in the road. A SP should be sufficiently distant from assembly areas to allow the march units to be organized and moving at the prescribed rate when they reach it. It should not be located to cause any element of a column to march to the rear or to march through another unit to reach it.

b. Prior to starting a march, each major unit of a serial reconnoiters its route from the serial SP to the route SP and determines the exact time required to move this distance. Normally, the time that each serial will arrive at the route SP is specified by the division G3 and published in the operation order. However, the serial commander must calculate and announce the times for major units of his serial to arrive at and clear a designated serial SP. The serial and route SPs may be the same.

310. Designation of the Release Point

The RP should be easily recognizable on the map and on the ground and must be on the route of march. Unit guides meet their units as they arrive at the RP and lead them to the new areas. Multiple routes and cross-country movement should be employed from the RP to enable units to disperse rapidly. A route RP

should not be located in a defile, on a hill, or at a sharp curve in the road.

311. Road Movement Graph

A road movement graph is a time-space diagram used in planning and controlling marches and in preparing or checking road movement tables. It is a simple method of obtaining information to prepare a road movement table, and shows at all times the locations of the head and tail of each march serial. See FM 101-10 for details and an illustrative example of a road movement graph.

312. Road Movement Table

a. A road movement table normally is published as an annex to the operation order. The road movement table contains information and instructions concerning the march serials involved in the movement, including their serial numbers, rates of march, routes, SP's, times of crossing the SP's, critical points, times of arrival at and departure from critical points, and other pertinent details. This information is usually obtained from an accurate knowledge of the status of routes and units from a road movement graph and from time and space calculations.

b. It is generally infeasible for a marching column to maintain a constant density and a uniform time interval between march units and march serials, while at the same time maintaining a set rate of march. Such factors as road space, rate of march, time interval, elapsed time, time lengths, and distance will vary somewhat from the calculated data even in well-disciplined and well-controlled marches. In formulating the road movement table, it is important to consider the state of training of units. Weather, light, road conditions, the tactical situation, and to add a safety time factor to calculations if necessary.

c. Loss of time and the creation of obstacles and radiological contamination caused by nuclear attack must be expected and alternate plans must be prepared for immediate execution. The margin of time required for moves will depend on the weather, terrain, experience factors, road conditions, and the enemy's nuclear capability.

d. For an example of a road movement table, see FM 101-5.

313. Organization of the Column

a. Whenever possible, elements should move in multiple columns, each organized to permit continuous movement. The following

should be considered in planning the formation of the march elements and the order of march:

- (1) Missions of the units upon arrival and the disposition which will best accomplish those missions.
- (2) Present disposition of units.
- (3) Routes available.
- (4) Nature and extent of probable enemy interference.
- (5) Difference in rates of march of various elements.
- (6) Interval between units on the move.
- (7) Degree of probability that the enemy will employ nuclear weapons.
- (8) Implications of movement conducted during hours of darkness or under conditions of limited visibility.
- (9) Degree of flexibility and relative vulnerability of formation adopted.
- (10) Degree of tactical control.

b. The division may march in up to six major march serials: three brigades, division troops, division artillery, and the support command. However, there is no standard formation. March serials are organized as required by the tactical situation; in particular, elements of division artillery, other division troops, and the support command can move with the brigades.

c. The division executing a march is organized into march units and march serials or march columns (FM 25-10).

d. For information concerning vehicle densities of motor columns, see FM 101-10.

314. Rate of March

a. The introduction of nuclear weapons increases the requirement for speed and precision of movement. Rates of march will vary with the local conditions. Mixed vehicles in column, wheeled and tracked, must travel at the optimum rates (not maximum speeds) of the slowest vehicles.

b. Factors that determine the exact rate of march are—

- (1) Grades, sharp turns, cities, towns, and other restrictions along the route.
- (2) Surface conditions such as dust, ice, mud, and snow.
- (3) Condition of drivers and crews to include training and experience.
- (4) Condition of vehicles.
- (5) Conditions that affect visibility.

315. Halts on the March

- a.* See FM 25-10 for details of time, duration, and frequency.
- b.* A series of assembly areas is selected along all routes for dispersal of units during planned halts. Units move into these areas for refueling and relief halts and to clear blocked or contaminated roads when ordered to do so. Movement into and out of assembly areas is rigidly controlled by unit commanders. These areas should be easily accessible to the routes of movement and should be large enough to permit reasonable dispersion of battalion size units. Camouflage discipline in such areas is very important.

316. Refueling on the March

Commanders make plans for refueling en route. Halts for refueling take place in selected assembly areas if possible. Sufficient class III supplies are carried in unit trains, obtained from army supply points en route, or dispatched ahead of the movement to be on hand as required.

317. March Liaison

a. Each march unit and serial establishes liaison with the preceding element in the column before crossing the IP. The liaison agent keeps his commander informed of the state of readiness of the preceding unit, delays that occur, and the time of departure of the preceding unit. Unless radio or listening silence is imposed, liaison is normally accomplished by radio. When radio silence is imposed, wire and messengers (motor or Army aircraft) are employed. This type liaison minimizes last-minute changes in march orders and enables each unit to start at the proper time. It also eliminates the premature removal of camouflage materials, unnecessary consumption of fuel, and fatigue to personnel.

b. Division headquarters establishes liaison with higher headquarters to keep abreast of priorities on roads and critical points on the route of march. If there is a possibility of other units using or crossing the routes designated for movement of the division, liaison is established with these units at the earliest time possible.

318. Administrative Support

a. Through timely coordination and planning, administrative support units provide for emergency repair, evacuation, and re-supply on the move and after arrival at the destination.

b. The division administrative support units move independently, when practicable, and generally on one or more interior routes. They may march to the location in a single move or may displace by echelon.

c. For details of maintenance and procedure in event of accident, see FM 25-10.

319. Night Marches

Enemy air and nuclear capabilities and the requirement for secrecy frequently dictate movement at night or under conditions of poor visibility. In general, night marches are organized and conducted in the same manner as day marches; however, reduced visibility places greater emphasis on control, security, liaison, and maintenance of direction. These aspects require careful prior reconnaissance, preparation, and suitable control measures.

320. Security

a. General.

- (1) The division commander prescribes the security measures for the division.
- (2) The armored cavalry squadron and the aviation battalion assist in providing security for the division. During a move involving the major portion of the division, these units are used actively under division control.

b. Security During Movement to Contact.

- (1) *Security forces.* A division moving to contact uses covering forces, advance guards, flank guards, rear guard, and march outposts to secure itself against ground attack.
 - (a) The division advancing to contact normally is preceded by a covering force. The covering force can be directly under the control of the division commander or it can be provided by higher headquarters and retained under the control of that commander. Operations of the covering force are discussed in paragraphs 139 through 148.
 - (b) Each commander of a column, even though preceded by a covering force, also sends forward an advance guard to protect the main body from surprise and to insure its uninterrupted march.
 - (c) Flank and rear guards, operating directly under the column commander, protect the main body by operating to its flanks and rear.
- (2) *Security at halts.* When a column halts for a short period, its advance, flank, and rear guards establish march outposts. If the command is required to halt for a long period, it secures itself by means of an interior guard for internal security and an outpost system disposed to cover

its front, flanks, and rear. Each column organizes its own outpost system. The outpost system is organized from rear to front into reserve, supports, outguards, and sentinels. When important points outside the outpost system are to be secured, detached posts are established. The main body is disposed to counter enemy threats and facilitate the adoption of a predetermined defense.

321. Orders

a. The operation order contains the instructions issued for the movement of units from one location to another within a stated period of time. This order normally is prepared after the completion of the necessary reconnaissance and an estimate of the situation. On occasion, the time available and the existing tactical conditions will not permit detailed planning or reconnaissance. Consequently, it is advisable for a division to have several march plans prepared in the form of an SOP. These plans can then be modified by fragmentary orders to fit the given situation.

b. Conditions and time permitting, information in the operation order includes destination, routes, rate of march, maximum speeds, order of march, SP's, time of crossing the SP's, details of air and ground alert guards, scheduled halts, distances, RP's, communications, location of the commander during the march, and strip maps. Additional details, such as route or unit markers to be used, control or checkpoints, and location of road guides, may be included if necessary. Certain items listed above often are standardized and included in the unit SOP. Items so included are not repeated in the operation order.

322. Strip Maps

A strip map is a schematic sketch containing useful information of the route of march. A strip map should be included as an annex to the operation order. It is particularly useful to commanders of small units for organizational control. Strip maps should be reproduced in quantity by the using units and supplied to key personnel, particularly to vehicle commanders, drivers, and route markers.

323. Control

a. The division commander establishes initial control of the march by designating in the order:

- (1) The initial and other critical points.
- (2) The time at which the heads or the tails of columns pass these points.

- (3) The rate of march.
- (4) Time interval between units.
- (5) The order of march.
- (6) The routes of march.
- (7) The assembly areas.
- (8) Phase lines and march objective if appropriate.
- (9) The locations of his command post.
- (10) Communications to be used for control of the march (par. 80).
- (11) Military police traffic control posts.

b. The rapid movement of forces requires effective control. Emphasis must be placed on the movement control of divisional units and of corps and army units operating in the division zone. A movement plan or an SOP should provide for—

- (1) Establishment of unit priorities and control of the movement to and on routes. Routes must be clearly marked and vehicle operators thoroughly briefed.
- (2) The granting of a clearance by the appropriate traffic headquarters prior to movement.
- (3) A surveillance system to check unit locations and march dispersion and to assist in controlling the march.

c. March discipline and adherence to march techniques are necessary to the maintenance of uninterrupted movement and reduction of the vulnerability of the division. The use of Army aircraft provides an efficient method for detecting and correcting violations. Consistent with tactical security this system is used to the maximum. Units identify themselves to aerial observers by displaying panels. Ground surveillance should be used for all marches. Staff officers at all echelons should be used to check and control columns.

d. Efficient use of military police must be planned. Movement on multiple routes during periods of poor visibility and the existence of major intersections, defiles, and detours along routes increase traffic control problems. Minimum essential traffic control posts should be used. In conjunction with control posts and consistent with tactical security requirements, aerial and mobile ground control teams can be used with each column. The aerial control team can land and control situations until relieved by a ground control team. Additional military police support from higher headquarters should be requested when organic military police cannot handle the operation alone.

324. Control During Movement to Contact

a. For control purposes a large unit normally is assigned either objectives (to include intermediate objectives and phase lines), a zone, an axis of advance, or routes of movement. The commander also prescribes the time and place of departure of his column so as to produce the desired formation. Column commanders report promptly when objectives, phase lines, or check points are reached or at other designated times. The imminence of contact with strong enemy forces and the terrain largely determine the degree of control established.

b. In an advance, commanders are well forward in order to control the operation. The command post moves either by bounds or at a designated place in a column. When contact is imminent, the commander places increased emphasis on possession of terrain suitable for subsequent deployment of his command. Once a march has begun, variations in disposition or formation are accomplished by halting columns, changing the routes, or by modifying existing or prescribing new control measures discussed in *a* above.

c. Signal communication during tactical marches is discussed in paragraph 80.

Section III. MOVEMENTS BY RAIL

325. General

Rail is an economical form of land transportation for moving large bodies of troops long distances and should be used to the maximum extent possible. When rail facilities are limited, tracked vehicles should be moved by rail and all others by road.

326. Responsibilities

Troop movements by rail are the joint responsibility of the transportation agency and the unit being moved.

a. The transportation agency is responsible for providing suitable transport equipment, CONEX if required, loading and unloading facilities, and necessary technical guidance and supervision.

b. The moving unit is responsible for its own internal administration and control. It prepares and implements loading plans in accordance with directives and in cooperation with the transportation agency. The moving unit also provides housekeeping and local security troops to the transportation agency.

327. Plans and Orders

a. When directing the movement of a unit by rail, the order will designate the points at which the unit will entrain and will indicate the desired closing time at the unit's destination.

b. The commander of the troops is responsible for the preparation of plans and tables regulating loading. Details of the move are worked out with the transportation officer of the area in which the move originates. A central transportation movements agency determines the routing. Contacts by the moving unit with civilian or foreign government railroads are usually made through the area transportation officer.

328. Organization for Movement

a. The sequence in which elements are moved is determined by the availability of transportation, the mission, and the situation which will confront the moving unit at its destination. The assignment of units to entraining points is determined by availability of suitable loading facilities, materiel to be loaded and proximity of elements to entraining points.

b. A transportation grouping consists of the troops, equipment, and supplies transported on one train. Transportation groupings are organized to obtain the most economical loading unless tactical considerations dictate the maintenance of tactical unity. When tactical considerations govern, each combat element should be accompanied by its own equipment and supplies.

Section IV. MOVEMENTS BY WATER

329. General

a. Water transportation is the primary means by which over-sea operations are established and maintained. It is characterized by a large capacity for personnel and tonnage, great range, comparatively slow speed, but a high rate of movement.

b. Waterborne movements are especially vulnerable to attack by hostile air, surface, and undersea forces. When there is a possibility of enemy attack, vessels usually will be assembled in a convoy under naval command and provided with a naval escort to include air cover.

330. Responsibilities

a. The responsibilities of the moving agency, the Military Sea Transport Services (MSTS) or the U.S. Navy, are set forth in JCS Pub 2. For details relative to water transportation, see FM 101-10.

b. The responsibilities of the unit being moved are the same as set forth in paragraph 331b.

Section V. MOVEMENTS BY AIR

331. General

Air movement is a means of transporting units rapidly into battle or to deliver troops, supplies, or equipment to a secured objective area or into an area inaccessible to other means of transport. Movements by air may be either tactical or administrative, or a combination of administrative and tactical, depending upon the contemplated employment of the force being moved. Movement by air capitalizes on the capability of the aircraft to overcome distances and overfly geographical barriers and is characterized by speed. It is limited in its employment by a low tonnage and cubage capacity, adverse weather, inadequate air-landing facilities, and enemy counterair activities.

a. *Strategic.* Speed is maximized by air movement. The division, less tanks, tank recovery vehicles, armored vehicle launched bridges, and, except under ideal circumstances, armored personnel carriers and self-propelled artillery, can be moved to locations throughout the world in a short time, thereby capitalizing on strategic surprise. The division can be moved by air independently or as part of an airborne force. See TM 57-210 and FM 57-10 for information regarding movement.

b. *Tactical.* Tactical movement by air is covered in FM 57-10 and FM 57-35.

332. Army Aviation

Aircraft within the division suitable for cargo and troop lift are assigned to the aviation battalion. Mobility of the division is improved by the battalion's support of the reconnaissance effort and its use to move troops and supplies and to evacuate casualties. Since the division's airlift capability is limited, careful coordination and planning are essential for its efficient use. Consideration is given to the additional Army transport aviation support available within the field army. Plans for employing units using Army transport aviation encompass operations up to and including the tactical airlift of one or more battalions.

333. Control of Army Aviation

Army transport aviation units from higher headquarters may be attached or placed in support of the division. Normally, the division will retain operational control of such units; however, circumstances may require that control be passed to a lower level. Delegation of operational control may be favored when—

a. A subordinate unit is better able to plan, coordinate, and control the overall operation.

b. The planned operations do not transcend the area of responsibility of the unit conducting the operation.

c. The unit conducting the operation has been assigned the responsibility for designating the mission to be accomplished by the airmobile force.

d. The unit conducting the operation has adequate communication facilities for control of Army transport aviation.

334. Air Force Troop Carrier Support

The division plans for operations employing troop carrier aircraft to include maintaining up-to-date requirements to move the division or its subordinate elements by various types of aircraft. When aircraft are not available in the quantities required, elements which are not needed immediately in the objective area are phased back to subsequent echelons. See TM 57-210 for technical information regarding air movement.

Section VI. BIVOUAC AND ASSEMBLY AREAS

335. General

a. The division normally occupies a bivouac area only when the possibility of contact with the enemy is remote. Disposition of the units within the bivouac area is influenced by the need for adequate dispersion to minimize the effects of an air or nuclear attack and for protection against guerrilla attack. Adequate security measures are required for protection of any bivouac area.

b. An assembly area for a division is an area in which its organic units assemble to organize and prepare for further action. Unit dispositions normally are influenced by the tactical situation, and the probability and imminence of contact with the enemy. Security measures are taken in assembly areas as required by the tactical situation.

c. The following functions normally performed while units are in an assembly area :

- (1) Issue of orders.
- (2) Reorganization for combat.
- (3) Refueling and resupply operations.
- (4) Maintenance and decontamination operations.
- (5) Rest and relaxation of personnel.

336. Selection of Bivouac and Assembly Areas

a. *Bivouac Areas.* The selection of bivouac areas depends more

on the availability of suitable space than on any other consideration. The area must be sufficiently large to permit adequate dispersion of subordinate units. The bivouac area should be located to favor administrative support of the division. The transportation net within the area must be considered and should be adequate to support division traffic. Dispersion of unit areas should be consistent with the factors of control and the minimizing effects of nuclear, air, and ground attack. Required dispersion is obtained between battalion assembly areas rather than by dispersing individual units over the entire division area.

b. Assembly areas.

- (1) The assembly area of a division under conditions of nuclear war is normally located either in the army service area or in the corps rear area. This area is actually general area within which are located the assembly areas of the major elements of the division. The subordinate command assembly areas are specified by the division commander. Unit integrity is maintained in the assignment of the subordinate unit assembly areas.
- (2) In selecting an assembly area the following are considered:
 - (a) Whether the area is located to permit the contemplated employment of the unit to occupy it.
 - (b) Whether the area is defensible against known enemy capabilities.
 - (c) Whether the area is large enough and of proper shape and ground conformation to allow the occupying unit sufficient protection and dispersion to preclude the loss of more than one battalion to a single nuclear weapon.
 - (d) Whether the occupying unit will be able to establish the necessary communications.
 - (e) Whether the nature of the terrain provides adequate trafficability, concealment, and physical facilities to accommodate the unit.

337. Occupation of Bivouac and Assembly Areas

An advance or quartering party normally precedes the main body of the division into the bivouac or assembly area. Air defense, if required, is requested and furnished the advance party. The advance party improves entrances into and routes within the area and prepares the area for occupancy prior to the arrival of the division. Subareas as allocated and signs and guides are posted so that the march units can move into the area without halting. Both administrative and tactical considerations apply in the occupation of an assembly area.

APPENDIX I

REFERENCES

FM 1-5	Army Aviation Organization and Employment
FM 1-15	Aviation Battalion, Infantry, Airborne, Mechanized and Armored Divisions.
FM 1-60	Army Aviation Air Traffic Operations—Tactical.
FM 1-100	Army Aviation
FM 3-5	Chemical, Biological, and Radiological (CBR) Operations.
FM 5-135	Engineer Battalion, Armored, Mechanized, and Infantry Divisions.
FM 5-136	Engineer Battalion, Airborne Division
FM 6-20-1	Field Artillery Tactics
FM 6-20-2	Field Artillery Techniques
FM 7-11	Rifle Company, Infantry, Airborne Infantry, and Mechanized Infantry.
FM 7-15	Infantry, Airborne Infantry, and Mechanized Infantry Rifle Platoons and Squads.
FM 7-20	Infantry, Airborne Infantry, and Mechanized Infantry Battalions.
FM 7-30	Infantry, Airborne Infantry, and Mechanized Division Brigades.
FM 8-15	Division Medical Service, Infantry, Airborne, Mechanized and Armored Divisions.
FM 8-35	Transportation of the Sick and Wounded
FM 8-55	Army Medical Service Planning Guide
FM 9-1	Ordnance Service in the Field
FM 9-5	Ordnance Ammunition Service
FM 9-30	Maintenance Battalion: Division Support Command.
FM 10-33	Airborne Division Quartermaster Air Equipment Support Company.
FM 10-50	Supply and Transportation Battalion, Infantry, Airborne, Mechanized, and Armored Divisions.
FM 10-63	Handling of Deceased Personnel in Theaters of Operations.

- FM 11-50 Signal Battalion, Infantry, Mechanized, and Armored Divisions.
- FM 11-57 Airborne Division, Signal Battalion
- FM 12-11 Administration Company, Infantry, Airborne, Mechanized and Armored Divisions.
- FM 17-1 Armor Operations; Small Units
- FM 17-15 Tank Units, Platoon, Company, and Battalion
- FM 17-30 The Armored Division Brigade
- FM 17-36 Armored Cavalry Units, Platoon, Troop, and Squadron.
- FM 19-10 Military Police Operations
- FM 19-15 Civil Disturbances and Disasters
- FM 19-20 Military Police Investigations
- FM 19-25 Military Police Traffic Control
- FM 19-40 Handling Prisoners of War
- FM 19-90 The Provost Marshal
- FM 21-5 Military Training
- FM 21-6 Techniques of Military Instruction
- FM 21-18 Foot Marches
- FM 21-26 Map Reading
- FM 21-30 Military Symbols
- FM 21-40 Small Unit Procedures in Nuclear, Biological, and Chemical Warfare.
- FM 21-41 Soldier Handbook for Nuclear, Biological, and Chemical Warfare.
- FM 21-48 Chemical, Biological, and Nuclear Training Exercises and Integrated Training.
- FM 22-100 Military Leadership
- FM 24-1 Tactical Signal Doctrine
- (When published)
- FM 24-17 Tactical Communications Center Operations
- FM 24-18 Field Radio Techniques
- FM 25-10 Motor Transportation Operations
- FM 26-5 Interior Guard
- FM 27-10 The Law of Land Warfare
- FM 30-5 Combat Intelligence
- FM 30-7 Combat Intelligence, Battle Group, Combat Command, and Smaller Units.
- FM 30-9 Battalion Field Army
- FM 30-10 Terrain Intelligence
- FM 30-15 Intelligence Interrogation (U)
- FM 30-16 Technical Intelligence
- FM 30-19 Order of Battle Intelligence

FM 30-20	Aerial Surveillance—Reconnaissance, Field Army.
FM 30-101	Aggressor, The Maneuver Enemy
FM 30-102	Handbook on Aggressor Military Forces
FM 30-103	Aggressor Order of Battle
FM 31-10	Barriers and Denial Operations
FM 31-12	Army Forces in Amphibious Operations (The Army Landing Force).
FM 31-15	Operations Against Irregular Forces
FM 31-21	Guerrilla Warfare and Special Forces Operations.
FM 31-21A	Guerrilla Warfare and Special Weapons Operations (U).
FM 31-25	Desert Operations
FM 31-30	Jungle Operations
FM 31-40	Tactical Cover and Deception (U)
FM 31-50	Combat in Fortified Areas and Towns
FM 31-60	River Crossing Operations
FM 31-70	Basic Cold Weather Manual
FM 31-71	Northern Operations
FM 31-72	Mountain Operations
FM 32-5	Communications Security (U)
FM 33-5	Psychological Warfare Operations
FM 41-5	Joint Manual of Civil Affairs/Military Government.
FM 41-10	Civil Affairs/Military Government Operations
FM 41-15	Civil Affairs/Military Government Units
FM 44-1	Air Defense Artillery Employment
FM 44-1A	Air Defense Artillery Employment (U)
FM 44-97A	Air Defense Artillery Missile Battalion (HAWK) (U).
FM 52-10	Corps and Army Support of Divisions
FM 54-2	Division Logistics and the Support Command
FM 55-6	Transportation Services in Theaters of Operations.
FM 57-10	Joint Airborne Operations
FM 57-35	Airmobile Operations
FM 61-10	Command and Control Techniques
(When published)	
FM 61-24	Division Communications
(When published)	
FM 100-1	Doctrinal Guidance (U)
FM 100-5	Field Service Regulations ; Operations

FM 100-10	Field Service Regulations; Administration
FM 101-5	Staff Officer's Field Manual—Staff Organization and Procedure.
FM 101-10	Staff Officer's Field Manual—Organization, Technical, and Logistical Data.
FM 101-31	Staff Officer's Field Manual—Nuclear Weapons Employment (U).
TC 3-7	Capabilities and Employment of Biological Agents (U).
TC 3-10	Defense Against V Agents
TC 5-2	Employment of Mobile Assault Bridging
TC 17-7	Aerial Surveillance Platoon, Division and Armored Cavalry Regiment (U).
TC 100-1	Employment of Nuclear Weapons (U)
TC 101-1	Prediction of Fallout and Radiological Monitoring and Survey.
TC 101-2	Tactical Operations Centers
TM 3-200	Capabilities and Employment of Toxic Chemicals.
TM 57-210	Air Movement of Troops and Equipment
AR 220-10	Preparation for Oversea Movement of Units (POM).
AR 320-5	Military Terms, Abbreviations, and Symbols, Dictionary of United States Army Terms.
AR 320-50	Military Terms, Abbreviations and Symbols, Authorized Abbreviations and Brevity Codes.
AR 600-16	Personnel Service Divisions, Organization and Procedures.
AR 600-17	Division Personnel Support System, Organization and Procedures.
AR 638-30	Graves Registration Organization and Functions in Support of Major Military Operations.
DA Pam 108-1	Index of Army Motion Pictures, Filmstrips, Slides, and Phono-Recordings.
DA Pam 310-series	Military Publications Indexes
JCS Pub 1	Dictionary of United States Military Terms for Joint Usage.
JCS Pub 2	Unified Action Armed Forces (UNAAF)

APPENDIX II
ORGANIZATION CHARTS

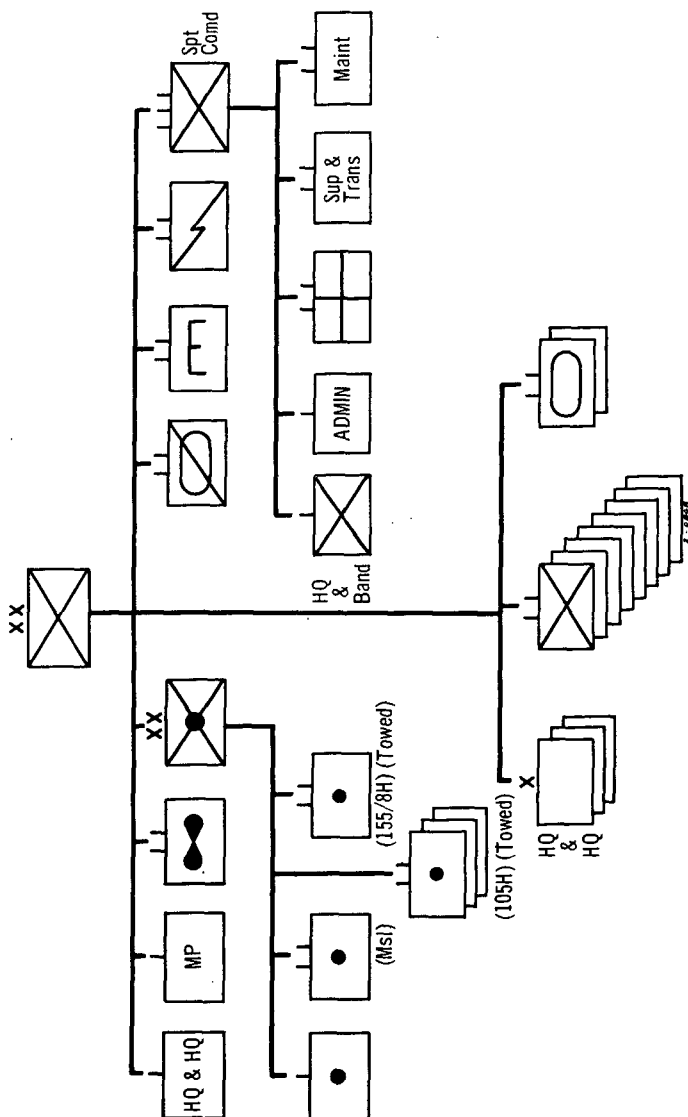


Figure 88. Infantry division.

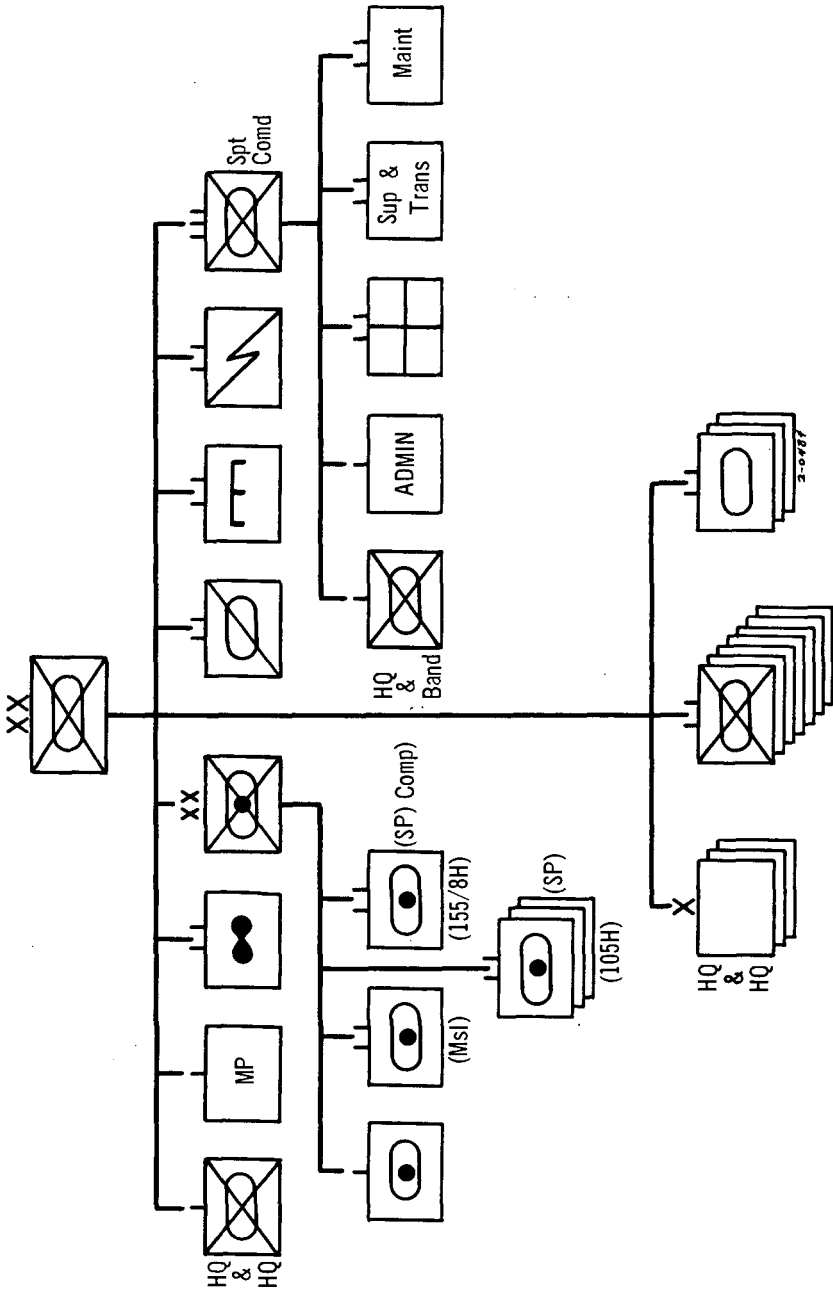


Figure 34. Mechanized division.

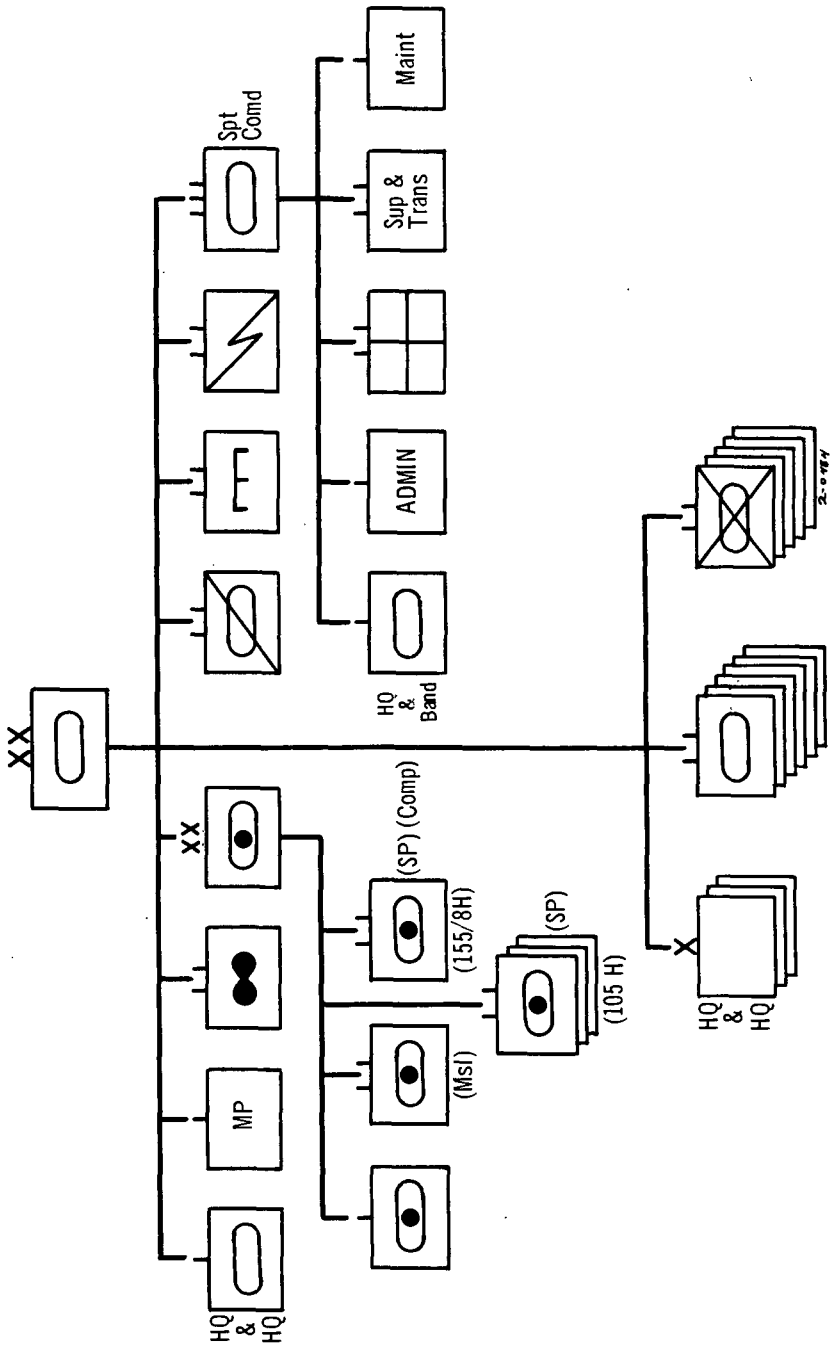


Figure 85. Armored division.

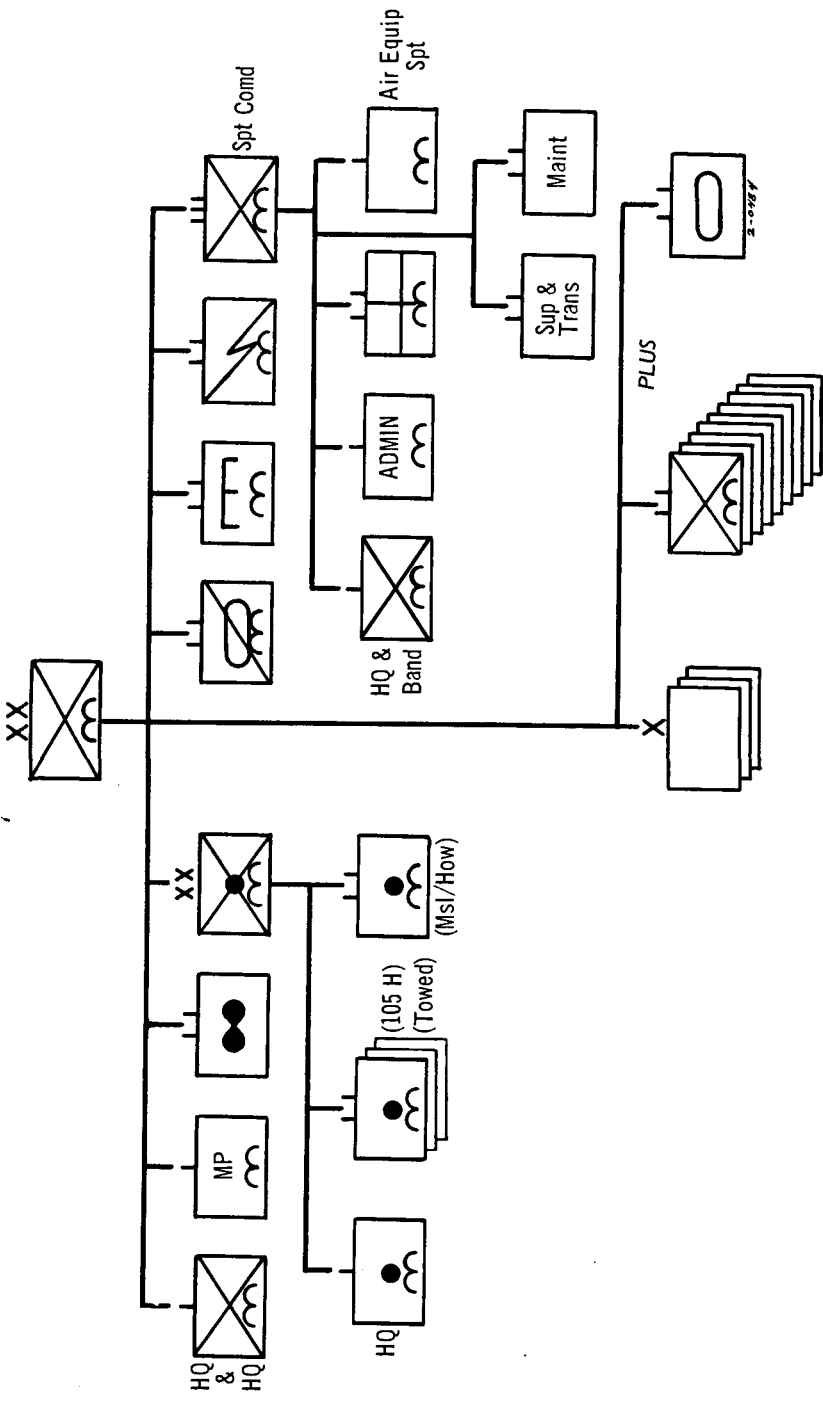


Figure 36. Airborne division.

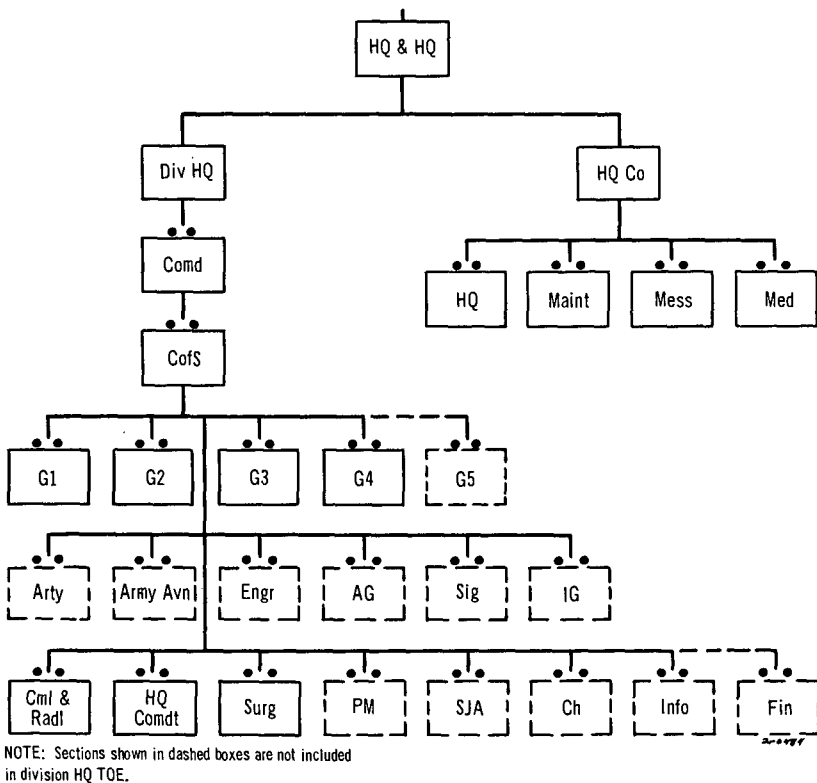


Figure 37. Division headquarters and headquarters company.

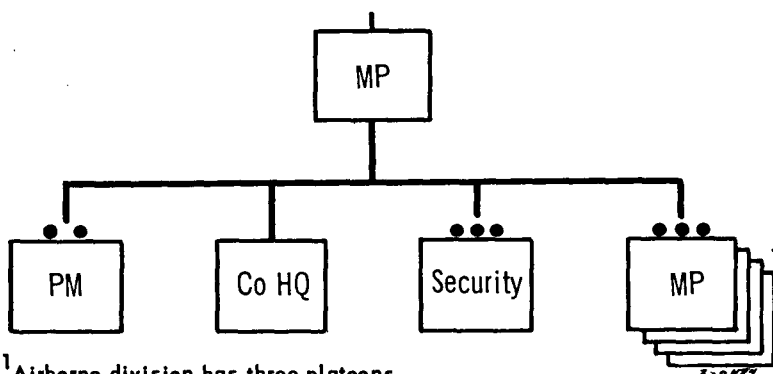


Figure 38. Division military police company.

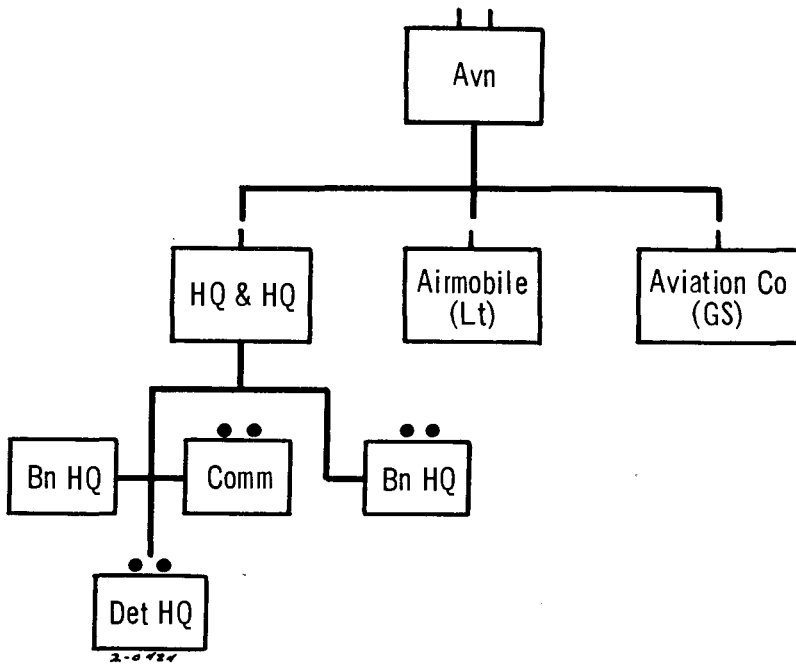


Figure 39. Division aviation battalion.

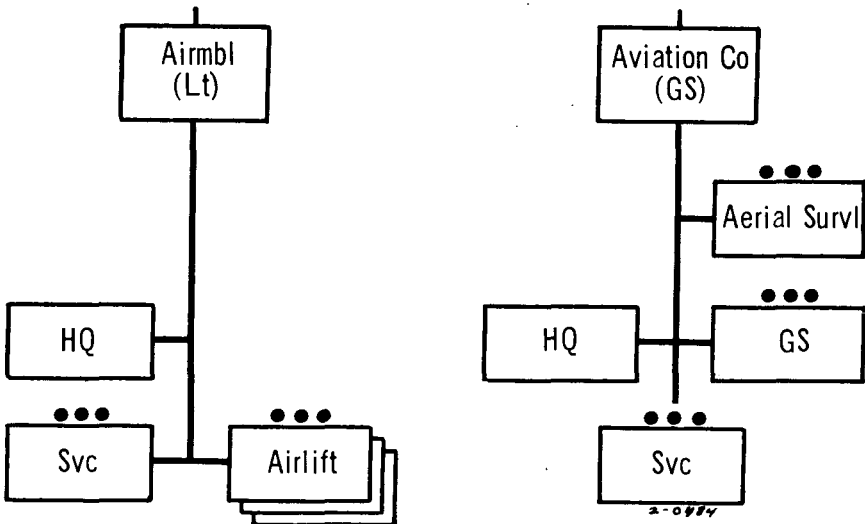
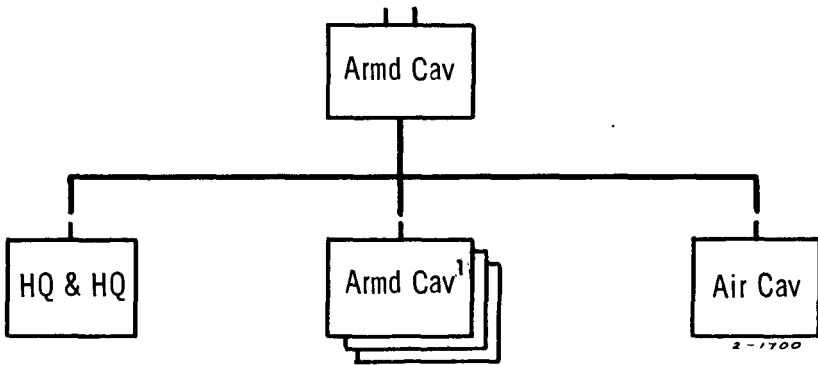


Figure 40. Airmobile company and general support company, division aviation battalion.



¹ Airborne division has two reconnaissance troops.

Figure 41. Armored cavalry squadron (reconnaissance squadron, airborne division).

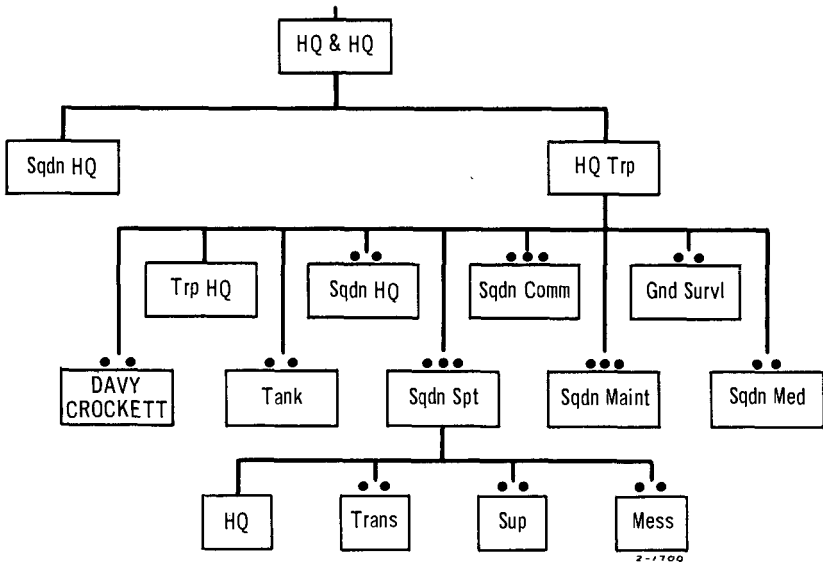
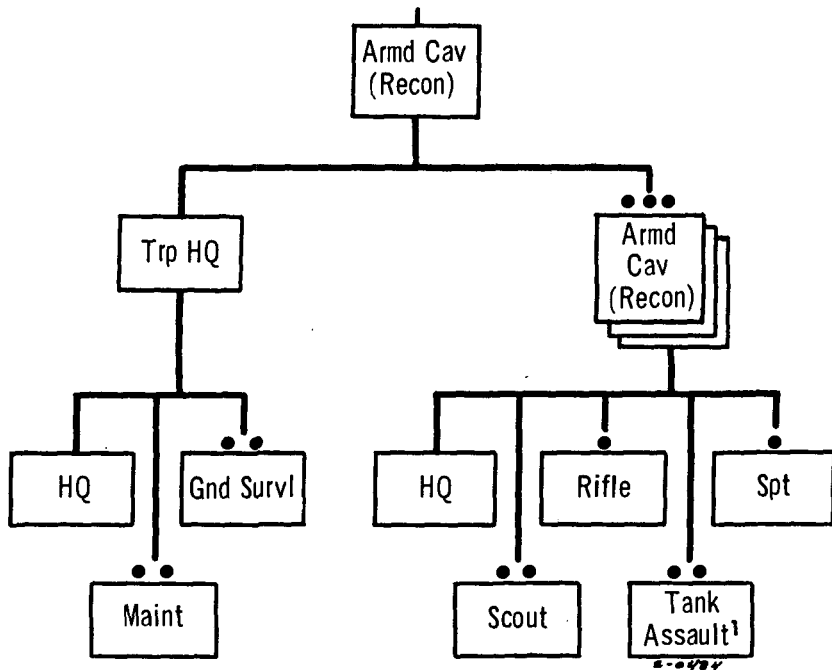


Figure 42. Headquarters and headquarters company, armored cavalry squadron.



¹Assault section replaces tank section in airborne division reconnaissance company.

Figure 43. Armored cavalry troop, armored cavalry squadron.

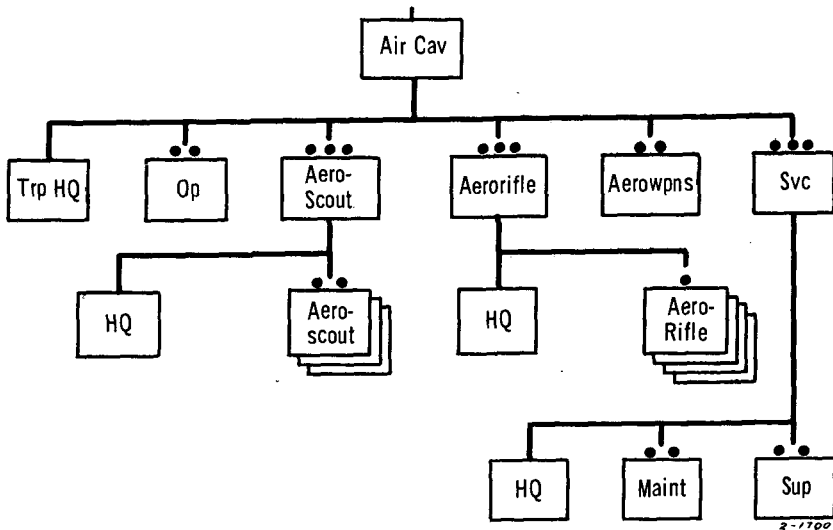
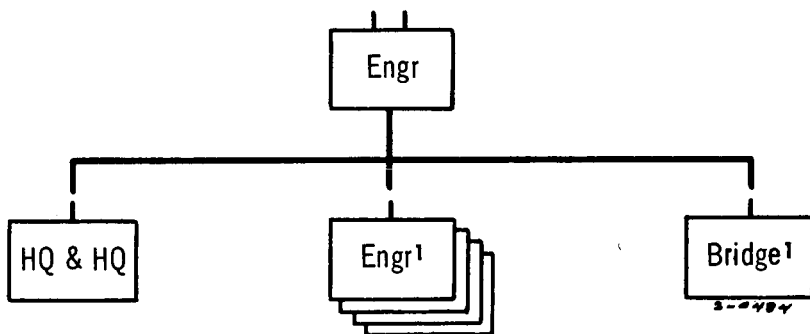


Figure 44. Air cavalry troop, armored cavalry squadron.



¹Airborne division has three engineer companies. No assault bridge company in airborne division.

Figure 45. Division engineer battalion.

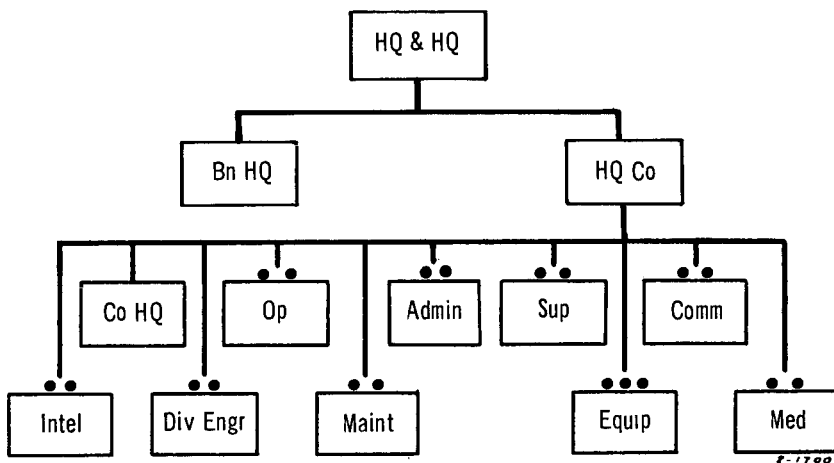


Figure 46. Headquarters and headquarters company, division engineer battalion.

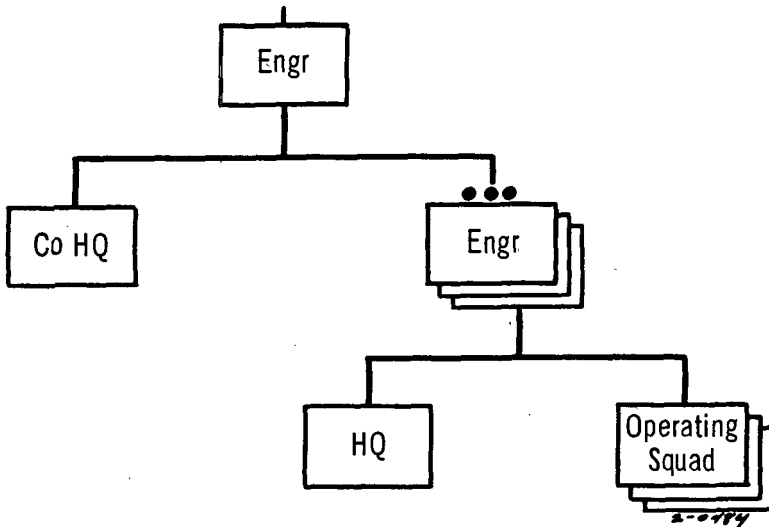


Figure 47. Engineer company, division engineer battalion.

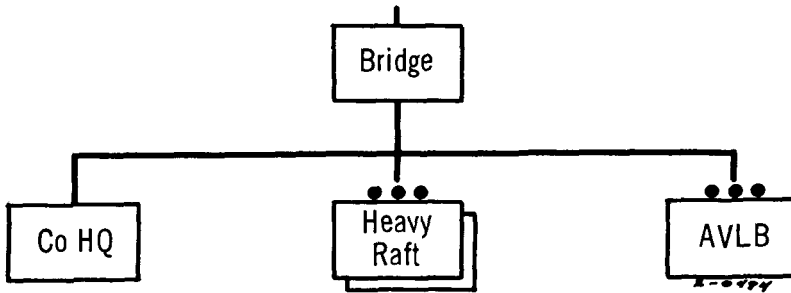


Figure 48. Bridge company, division engineer battalion.

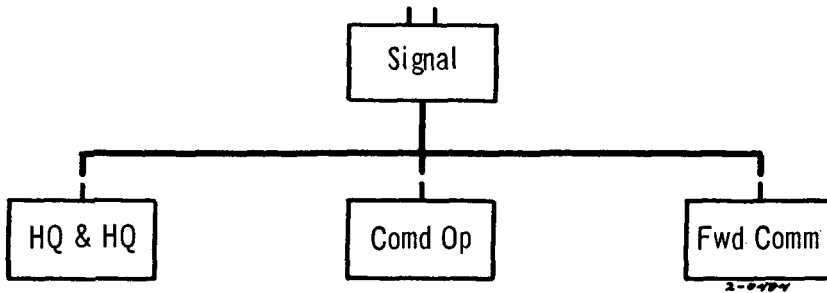


Figure 49. Division signal battalion.

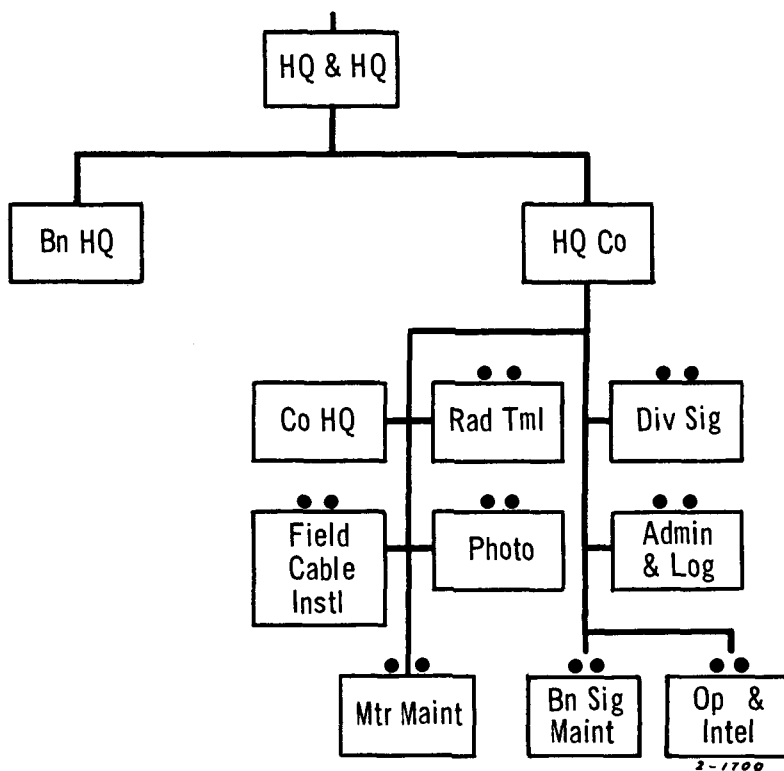


Figure 50. Headquarters and headquarters company, signal battalion.

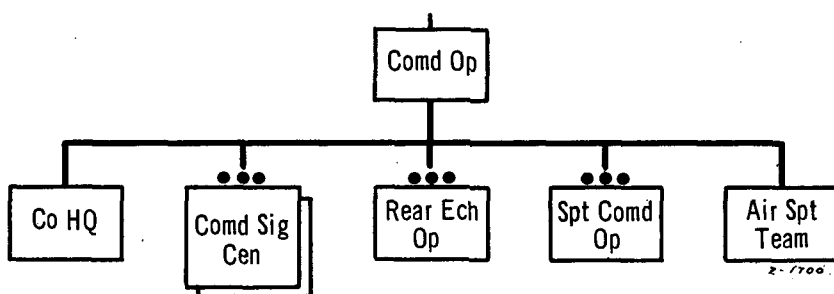


Figure 51. Command operations company, signal battalion.

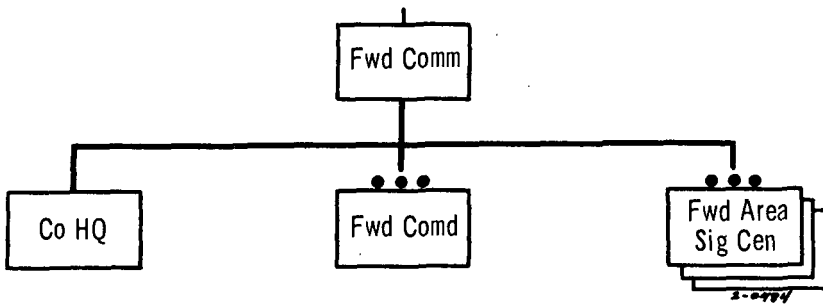


Figure 52. Forward communications company, signal battalion.

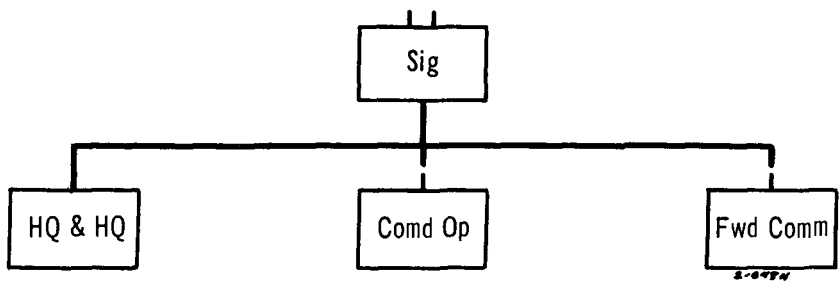


Figure 53. Signal battalion, airborne division.

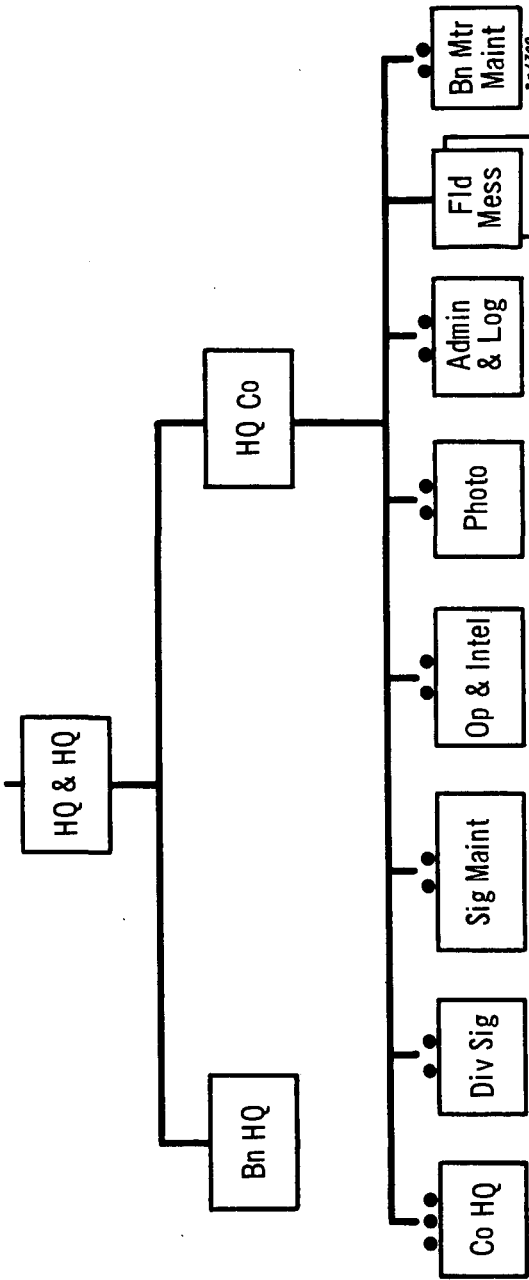


Figure 54. Headquarters and headquarters company, signal battalion, airborne division.

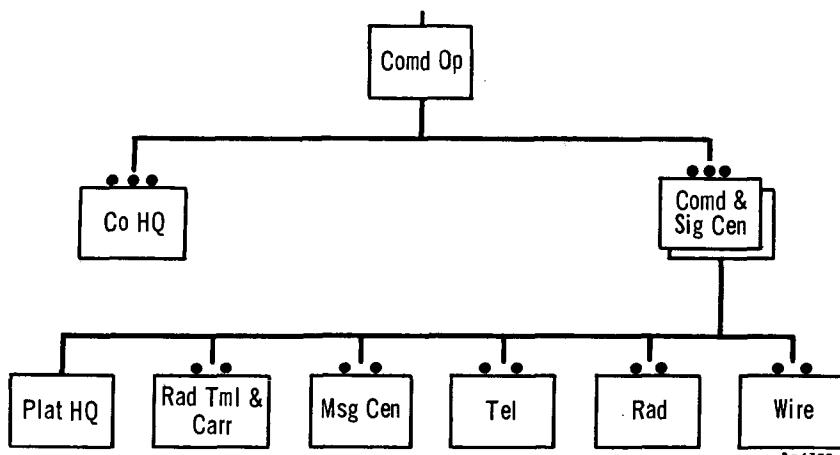


Figure 55. Command operations company, signal battalion, airborne division.

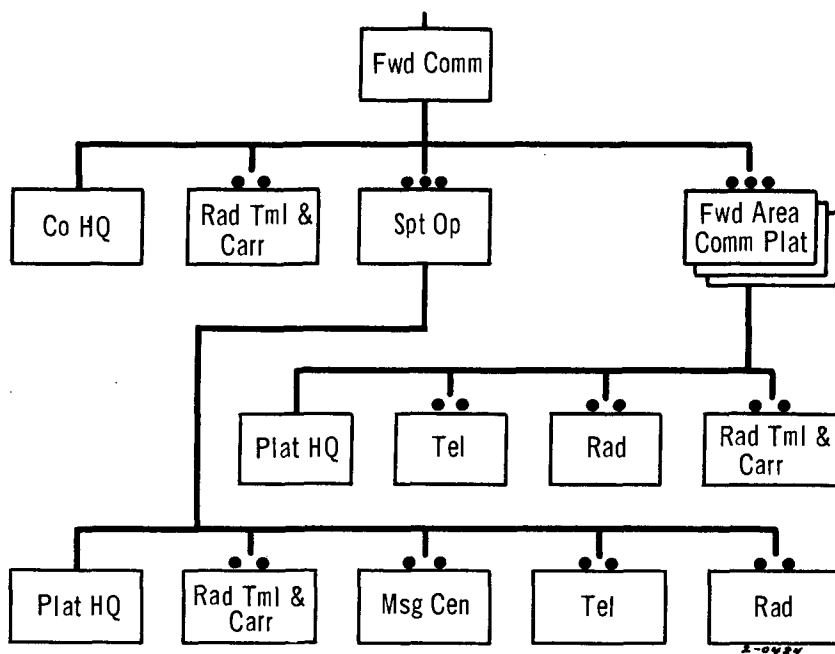
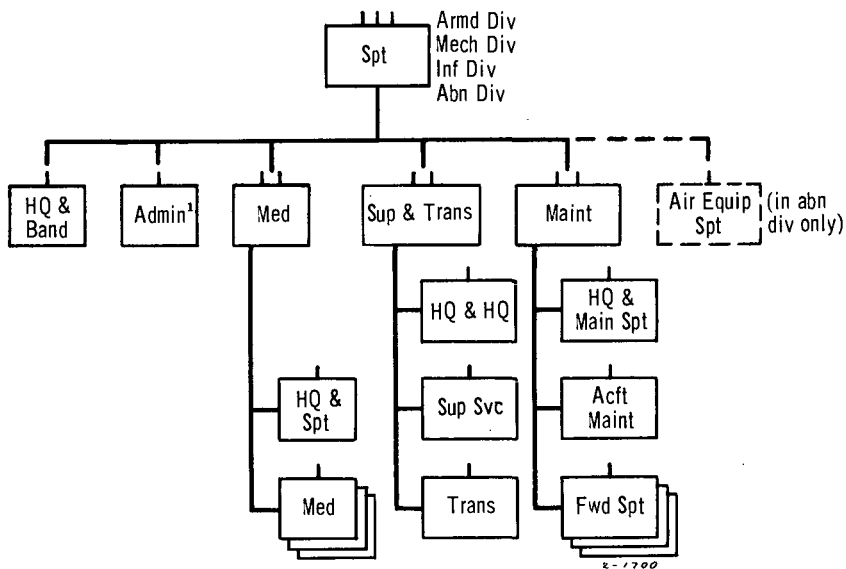
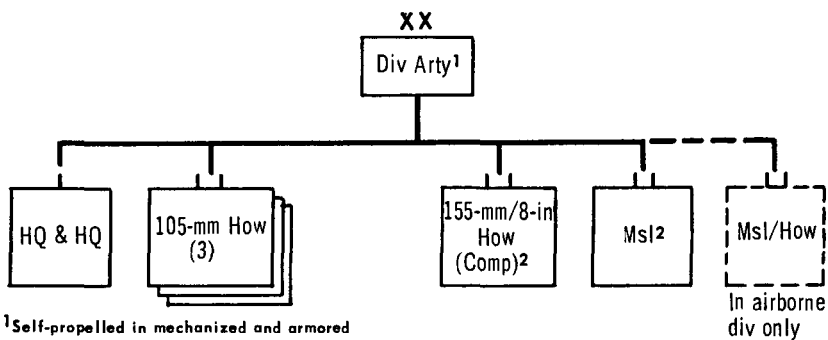


Figure 56. Forward communications company, signal battalion, airborne division.



¹The support commander's responsibilities are limited to tactical security and movement aspects of the administration company.

Figure 57. Division support command.



¹Self-propelled in mechanized and armored divisions; towed in infantry division.

²In airborne division there is no 155-mm/8-in howitzer battalion and no missile battalion. Instead there is a missile/howitzer battalion.

Figure 58. Division artillery.

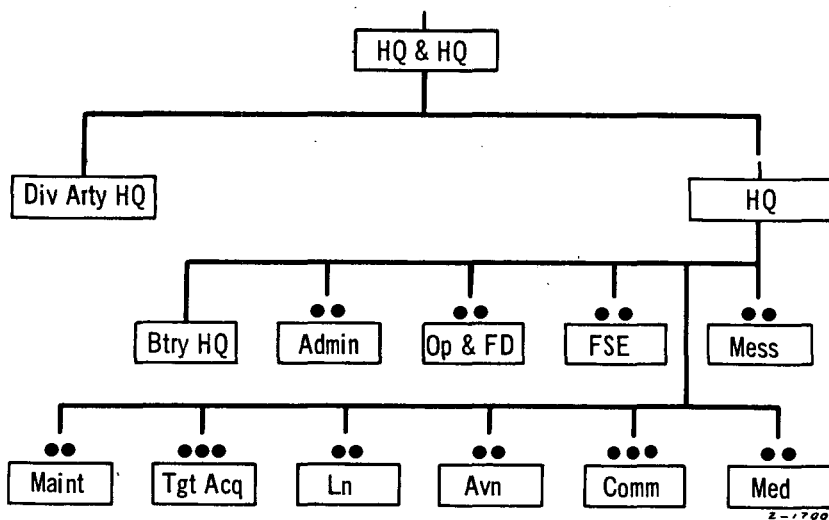
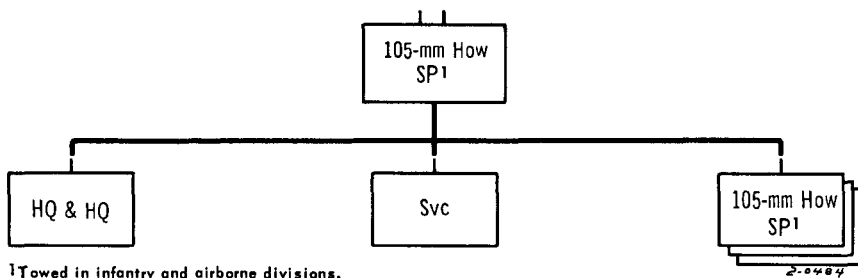


Figure 59. Headquarters and headquarters battery, division artillery.



1Towed in infantry and airborne divisions.

Figure 60. 105-mm howitzer battalion, division artillery.

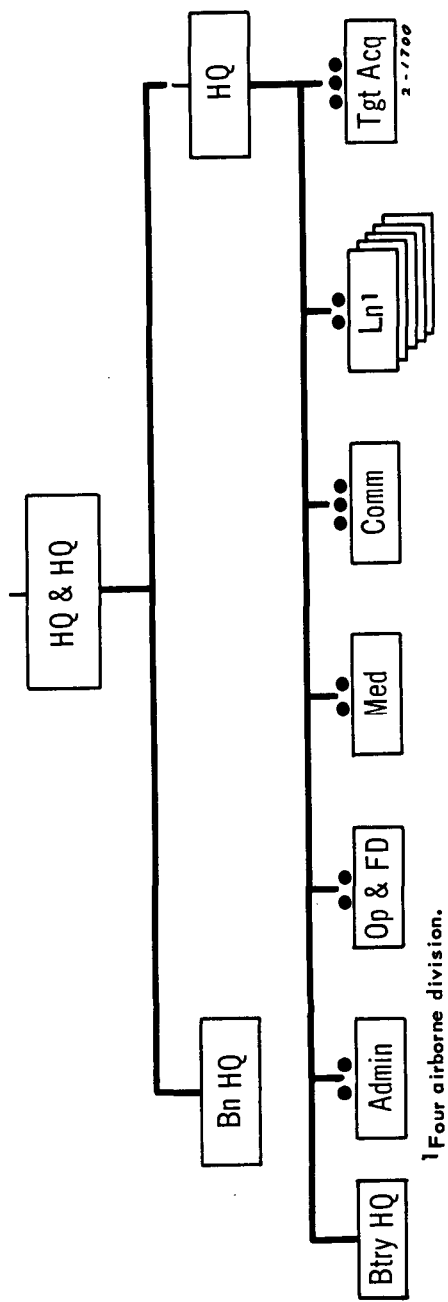


Figure 61. Headquarters and headquarters battery, 105-mm howitzer battalion, division artillery.

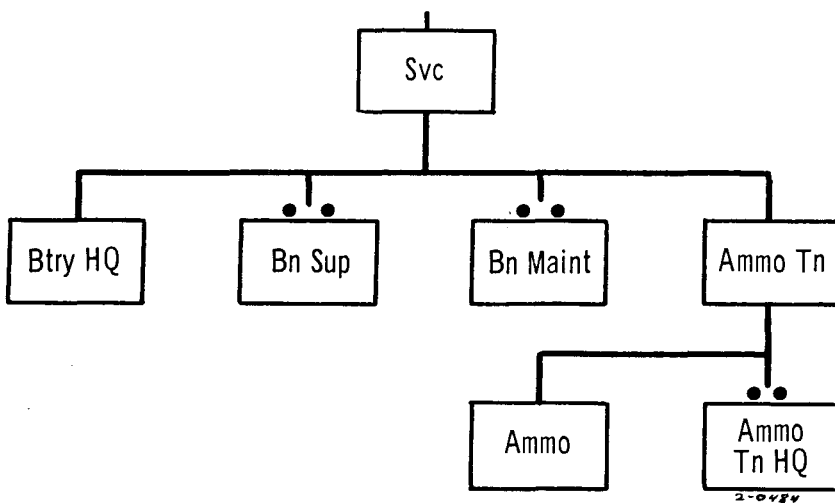
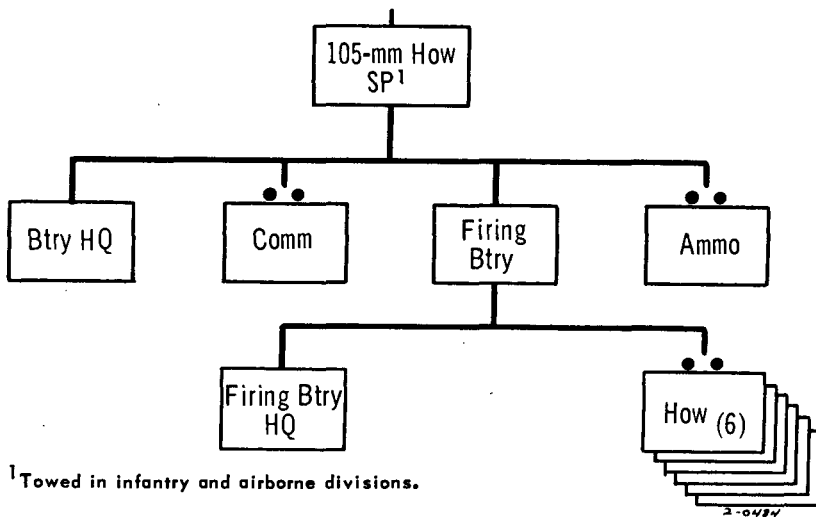
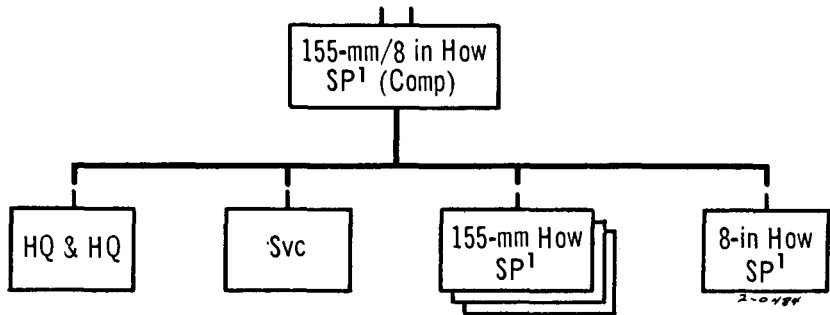


Figure 62. Service battery, 105-mm howitzer battalion, division artillery.



¹Towed in infantry and airborne divisions.

Figure 63. 105-mm howitzer battery, 105-mm howitzer battalion, division artillery.



¹Towed in infantry division.

Figure 64. 155-mm/8-inch howitzer battalion (composite), division artillery.

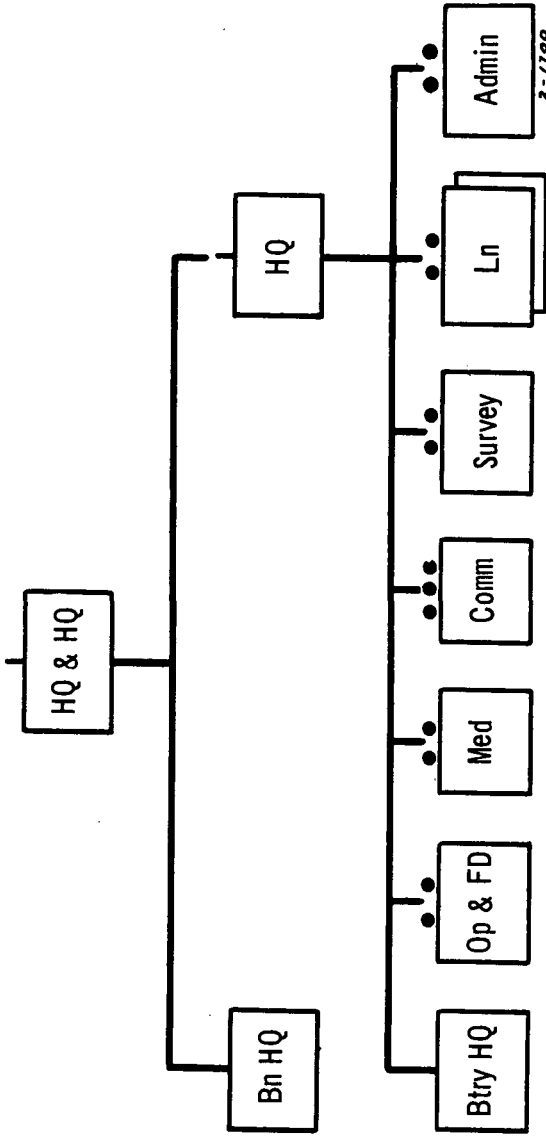


Figure 65. Headquarters and headquarters battery, 155-mm/8-inch howitzer battalion (composite), division artillery.

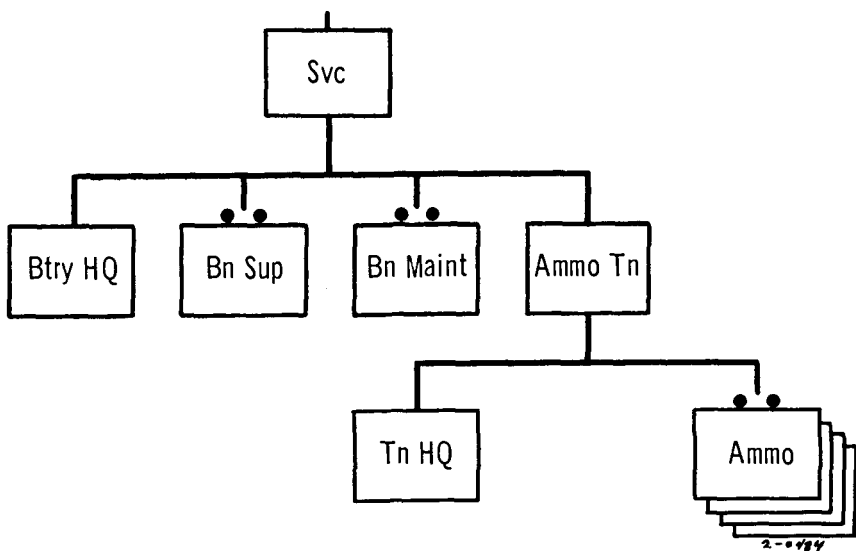
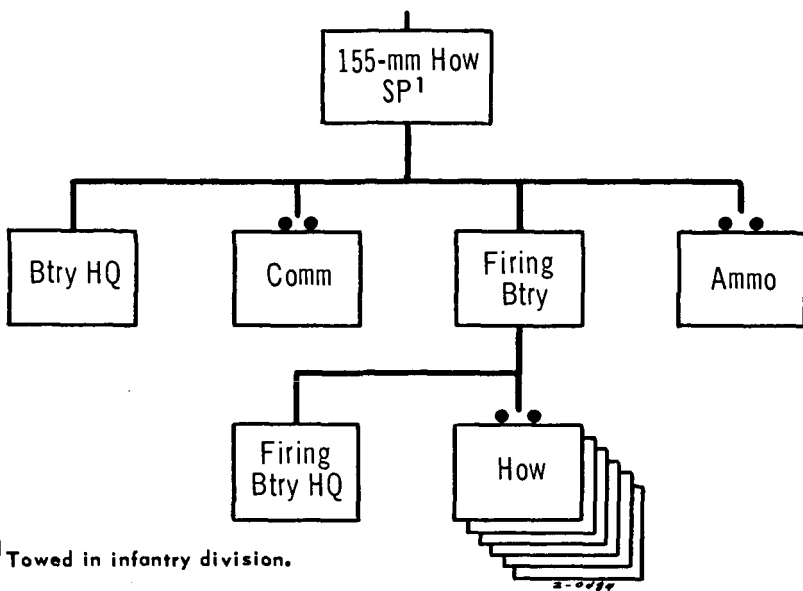


Figure 66. Service battery, 155-mm/8-inch howitzer battalion (composite), division artillery.



¹Towed in infantry division.

Figure 67. 155-mm howitzer battery, 155-mm/8-inch howitzer battalion (composite), division artillery.

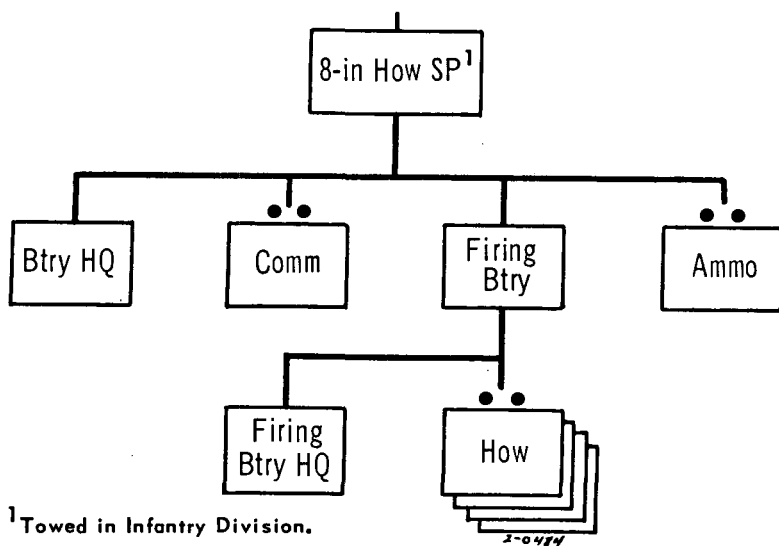


Figure 68. 8-inch howitzer battery, 155-mm/8-inch howitzer battalion (composite), division artillery.

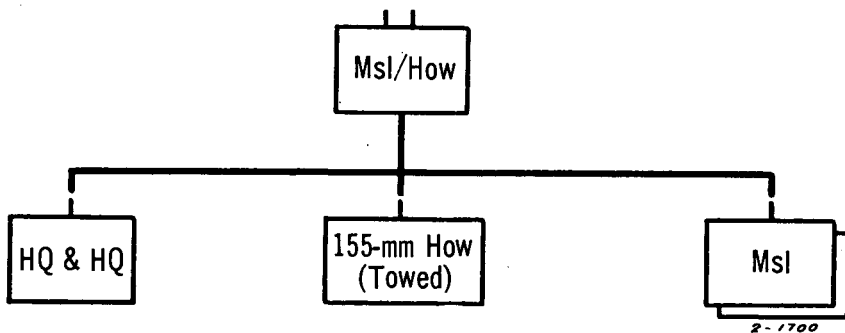


Figure 69. Missile/howitzer battalion, airborne division.

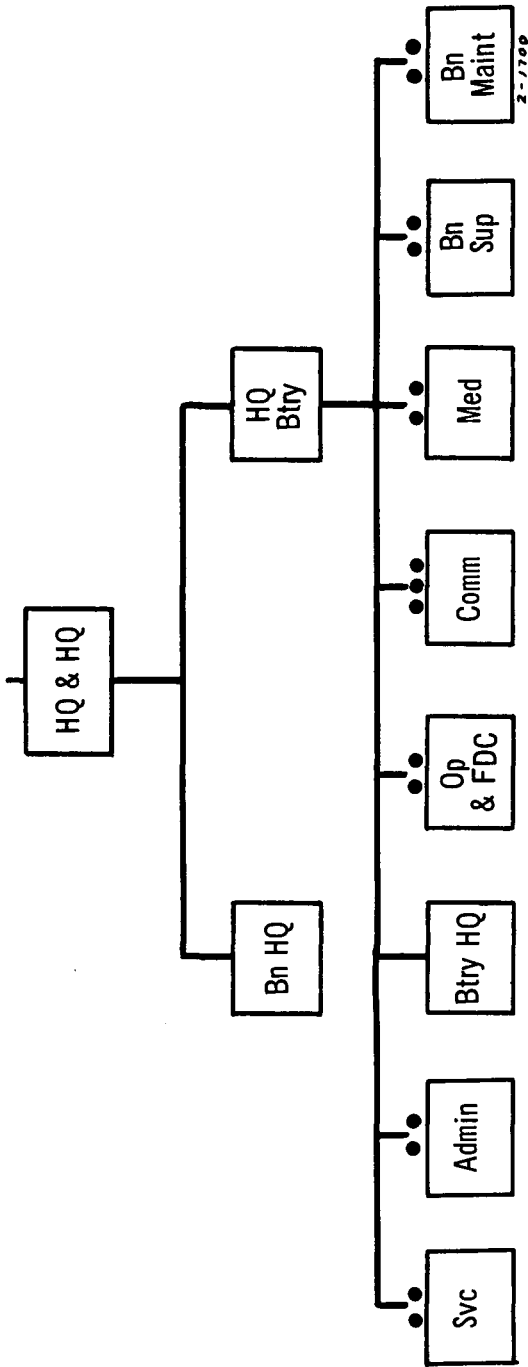


Figure 70. Headquarters and headquarters battery, missile/howitzer battalion, airborne division.

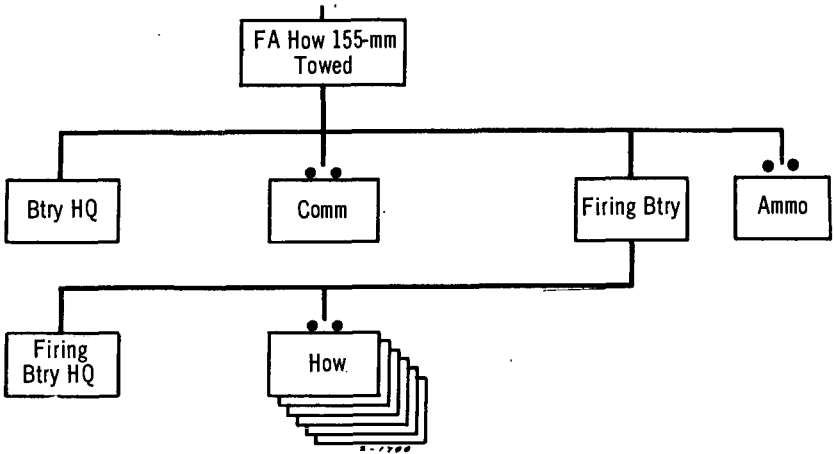


Figure 71. 155-mm howitzer battery, missile/howitzer battalion, airborne division.

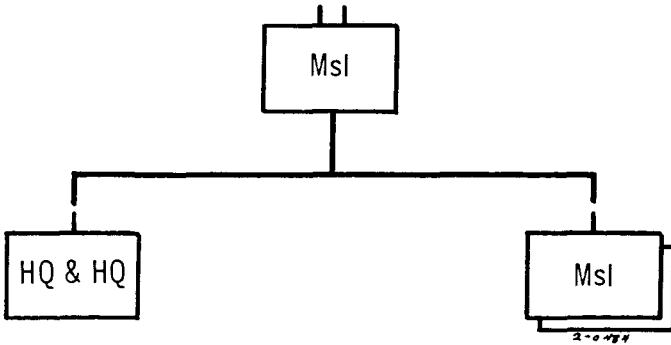


Figure 72. Missile battalion, division artillery.

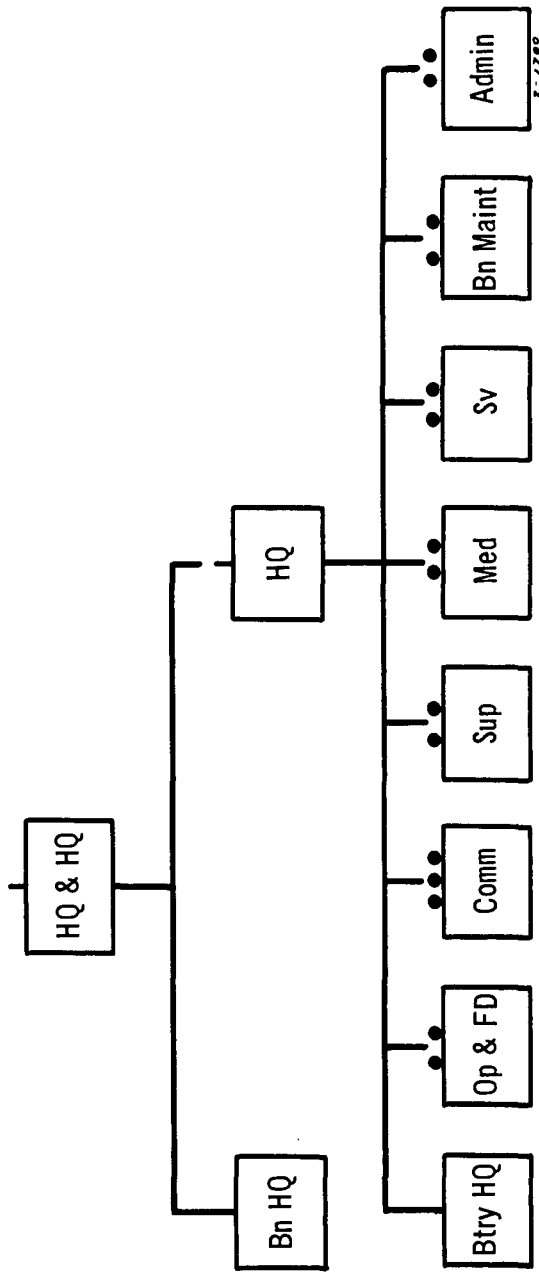


Figure 73. Headquarters and headquarters battery, missile battalion, division artillery.

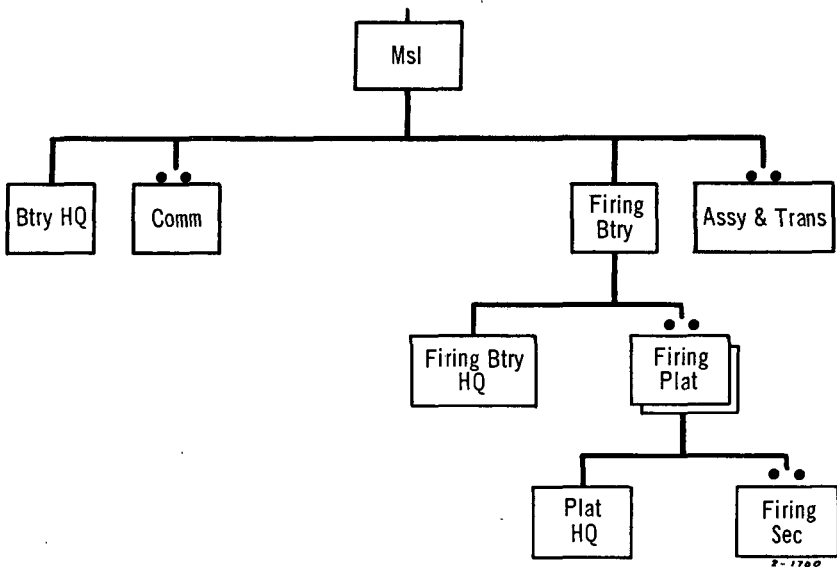


Figure 74. Missile battery, missile battalion, division artillery.

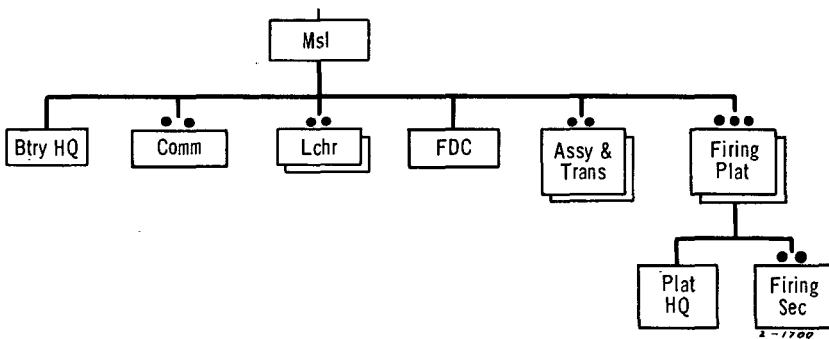
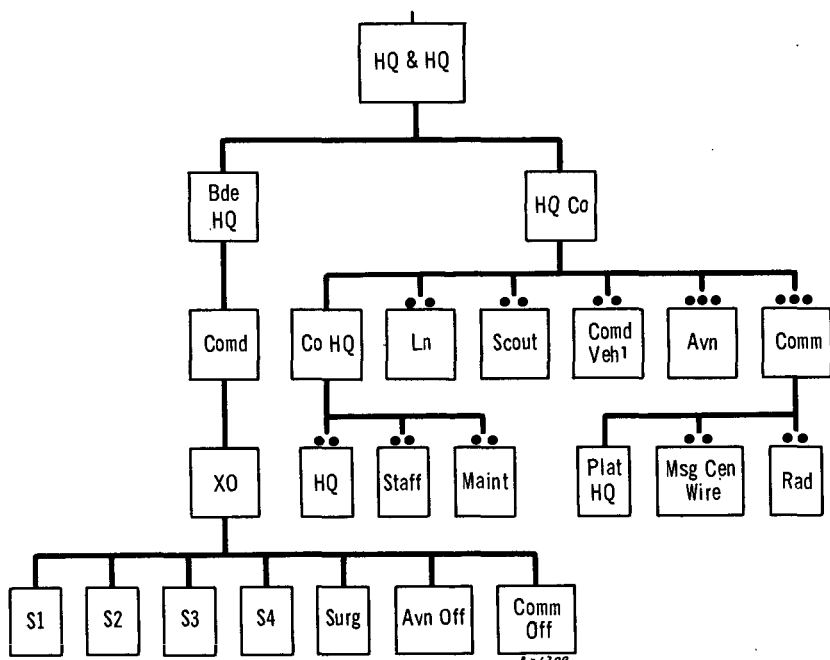


Figure 75. Missile battery, missile/howitzer battalion, airborne division.



¹In mechanized, infantry, or armored division only.

Figure 76. Headquarters and headquarters company, brigade.

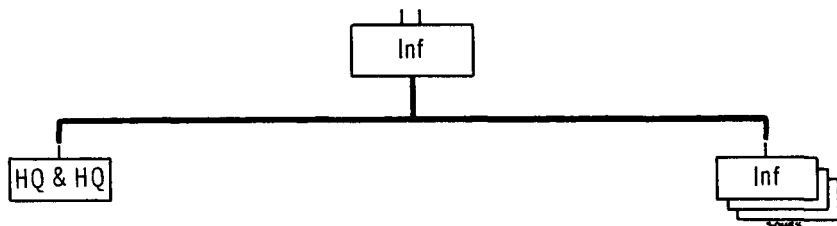


Figure 77. Infantry battalion, mechanized, infantry, and airborne divisions.

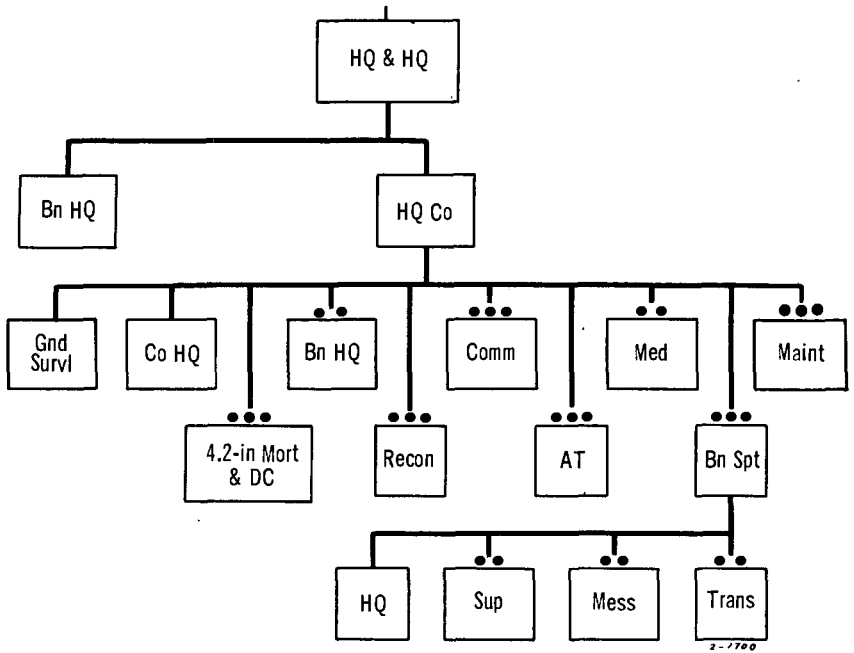
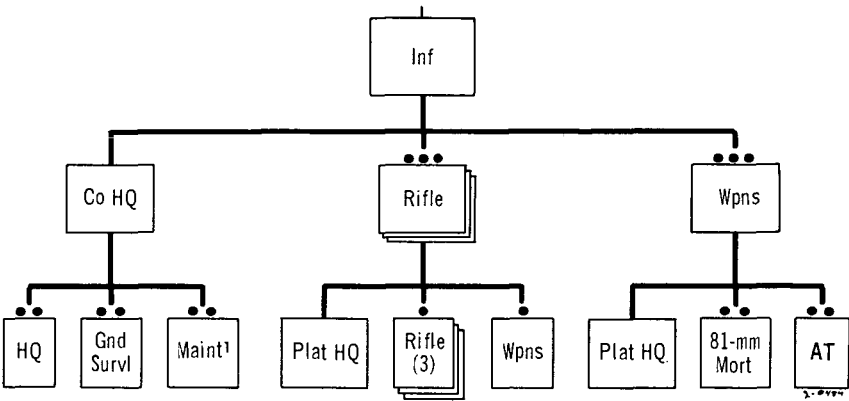


Figure 78. Headquarters and headquarters company, infantry battalion, mechanized, infantry, and airborne divisions.



¹Only in mechanized infantry battalion rifle company.

Figure 79. Infantry company, infantry battalion, infantry, mechanized, and airborne divisions.

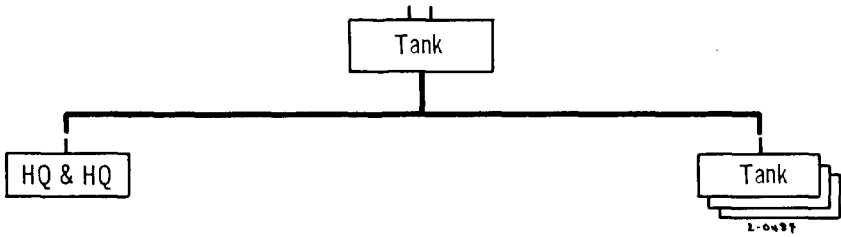


Figure 80. Tank battalion, armored, mechanized, and infantry divisions.

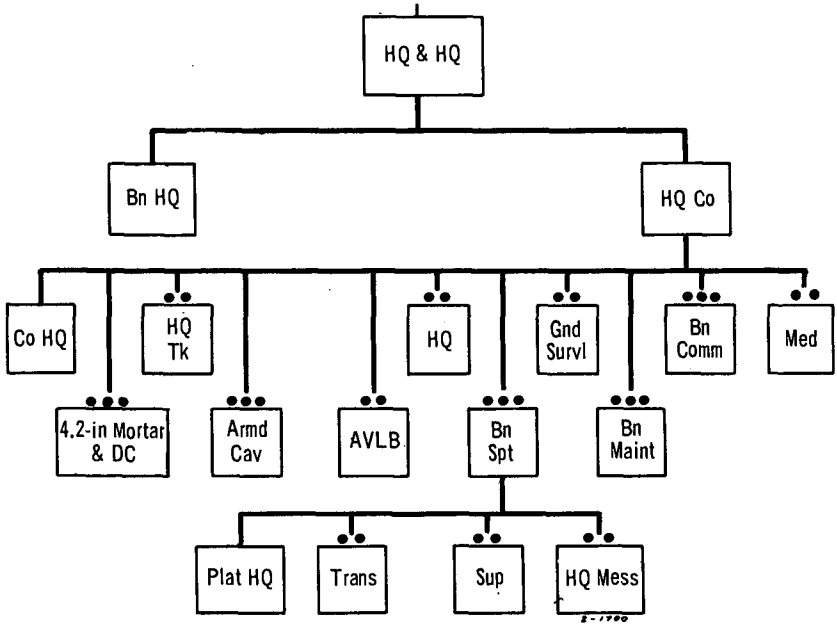


Figure 81. Headquarters and headquarters company, tank battalion, armored, mechanized, and infantry divisions.

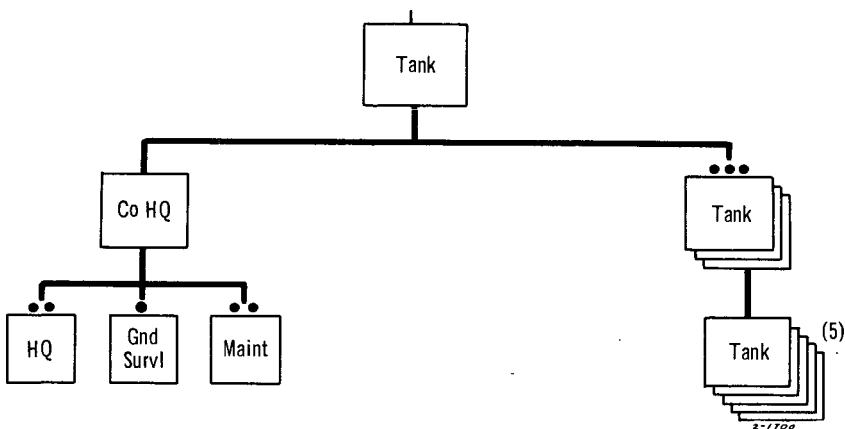


Figure 82. Tank company, tank battalion.

APPENDIX III
SAMPLE OF STANDING OPERATING PROCEDURES,
MECHANIZED DIVISION

(Classification)

52d Mech Div
FORT LEAVENWORTH, KANSAS
1 Sep 19----

STANDING OPERATING PROCEDURES

NO 3

COMBAT OPERATIONS

I. GENERAL

- A. Purpose. This SOP standardizes routine recurring operational and administrative procedures within div and applies except when modified by div order.
- B. Conformity. Subordinate unit SOP's will conform.
- C. Organization.
1. The following tactical groupings will normally be used; arty support will be provided in accordance with assigned missions.
 - a. 1 st bde.
 - b. 2d bde.
 - c. 3d bde.
 - d. Div trp.
 - e. Spt Comd.
 - f. Div arty.
 2. Div major comd instl. (The echelon in which the comdr is located or from which he operates is designated the CP.)
 - a. Comd Gp. CG; aides; G2, G3; div arty representative; sig representative; other staff officers as CG deems necessary; MP security escort; and operating personnel.

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- b. Div main. (Includes personnel in tactical CP when latter is not operating separately) CG; aids; CofS; G1, G2 (and special teams) G3, G4, G5 secs; TOC; HQ comdt; liaison off: comd operation co (-), engr bn, sig bn; AG and MP detachment. Others as designated.
 - c. Alternate CP. Asst div comdr; aide; others as designated.
 - d. Rear echelon. Admin co; rear echelon operations plat, sig bn.
- D. Combat Orders and Distribution.
- 1. Combat orders limited in distribution to major comd, separate task force, bn and separate co. Others informed by comdr or liaison off.
 - 2. Distribution A, when used, includes—
 - Corps or army
 - Attached units
 - Supporting units
 - Adjacent units
 - Each bde
 - Each bn, sqdn, and sep co
 - Div arty
 - Spt comd
 - Each general and special staff section
 - File
 - 3. Div sig off will assign msg reference number for combat orders, annex, appendix, tab, and inclosures thereto. When annex, appendix, tab, or inclosure is to receive the same distribution and be issued at the same time as the basic order, it will bear the same msg reference number. When annex, appendix, tab, or inclosure is to receive a different distribution or be issued before or after the basic order, it will bear a separate msg reference number.
 - 4. Major subordinate units deliver two copies of OPORD to G3; two copies of ADMINO to G4.

II. COORDINATION OF TACTICAL OPERATIONS

A. Command and Control.

- 1. Command posts.
 - a. Major units select and report location and time of

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- opening and closing. Report location of CP air-strips with each change in CP location.
- b. During move HQ remain operational.
 - c. To reduce the possibility of multiple loss of major HQ as a result of enemy use of nuclear wpn, major comd HQ will maintain a minimum of 5,000 meters distance from each other.
 - d. In the event of the destruction or temporary neutralization of div main CP; in the absence of specific instructions, div comd facility will be reestablished by fol HQ in accordance with the sequence in which they are listed:
 - (1) Designated bde.
 - (2) HQ, div arty.
 - (3) HQ, uncommitted bde, or any centrally located bde selected by the div (or acting div) comdr, based on suitability of location and adequacy of communications facilities.
 - e. Maj subordinate units will establish sequence of alternate comd facilities (par. d above) and report to div.
 - f. When a HQ facility has been destroyed or neutralized, the senior surviving off within the comd affected will move to the new HQ facility and assume comd. Pending the arrival of such senior surviving comdr, comd will be exercised by the comdr of the HQ which has become the new CP.
 - g. Surviving staff personnel of a HQ which has been destroyed or neutralized will promptly move to the new HQ.
2. Liaison and coordination.
- a. CofS establishes liaison officer facility.
 - b. Liaison off from bde, spt comd, separate bn and sqdn, and attached combat units not attached to subordinate comds report to CofS prior to march or combat operations.
 - c. From supporting unit to supported unit, unit to HQ to which unit is attached and laterally between units from left to right. Div flank units

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will establish and maintain liaison with adjacent parallel HQ.

- d. G3 will provide a situation map for liaison off facility.
3. Signal communication.
- a. General.
 - (1) Report immediately loss or compromise of current SSI or SOI.
 - (2) Responsibility for establishing sig circuits; higher to lower, left to right, and supporting to supported, unless otherwise specified by div order.
 - b. Radio.
 - (1) Radio restricted (netting and flash or operational immediate msg permitted) when radio relay and/or wire communication established.
 - (2) Listening silence (transmitter turned off; receiver on) or radio silence (transmitter and receiver turned off) when prescribed.

B. Intelligence.

- 1. Prisoners of war.
 - a. Capturing units interrogate PW (to include wounded) briefly for information of immediate necessity and identification. PW found to have any knowledge of en nuclear, chemical, or biological activity will be segregated and reported to G2 immediately. All other interrogation by IPW teams at div PW collecting point and div clearing station.
 - b. PW will not be allowed to eat, smoke, drink, or rest prior to arrival at div PW collecting point, except when such treatment would be inhumane.
 - c. En off, field grade or higher, and selected off and NCO's to div PW collecting point without delay.
 - d. Report immediately to G2 capture of en aircrews and guided missile, chemical, biological, and nuclear wpn personnel.
- 2. Captured documents. Crypto material and documents

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containing information on nuclear, chemical, and biological wpn delivered immediately to G2. Other documents through S2 except as below. All documents marked with date, time and place found or captured, including name and rank of PW. Documents found on PW will be carried by prisoner's escort to div collecting point. Technical documents found with captured equipment will be kept with equipment.

3. Technical intelligence.
 - a. Report of new or unusual en equipment, armament, nuclear material, or CB agents forwarded immediately to G2 with brief description. En material related to nuclear warfare will be evacuated only to avoid recapture. Captured or crashed en aircraft reported immediately to G2 and guarded by discovering unit.
 - b. Captured en material promptly reported by capturing unit, inspected by technical service intelligence team, and evacuated by maintenance bn.
4. Maps and terrain models. Requisitions in excess of prescribed allowance to supply and transportation bn through G2 for approval.
5. Weather, G2 obtains and disseminates weather reports to div staff and to major subordinate HQ.
 - a. Normal weather reports will be accomplished twice daily or as deemed necessary for operations.
 - b. Special reports:
 - (1) Division area and route flight forecasts to be accomplished four times daily.
 - (2) Forecasts for radiological defense twice daily or are broadcast as spot transmissions during intervals between forecasts.
 - (3) Forecasts every two hours to include winds and other data required for nuclear wpns employment.
 - (4) Severe weather warnings accompany two hour forecasts or are broadcast as spot transmissions during intervals between forecasts.

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6. Reconnaissance.

a. General.

- (1) Observation and combat surveillance. Report location of all OP's to G2.
- (2) Flash msg : Use flash msg report for approach en armor, aircraft, naval or amphibious landing craft, abn trp, or en nuclear or CB atk. Include number, type, location, direction of movement, speed, altitude (if applicable), time observed, and identification of observer. For nuclear flash msg report, see Annex C, Actions to Minimize Effects of Enemy Nuclear, Chemical, and Biological Atk.
- (3) Report immediately—
 - (a) Known or suspected en troop concentrations which may be suitable for nuclear atk, or indication of their existence or development.
 - (b) En countermeasures including, but not limited to, issue of special protective clothing to troops in forward area, construction of unusually deep or covered foxholes, or special shelters defiladed in rear of forward positions.
 - (c) Indication of en use of nuclear wpn, such as presence of special troop units in area, registration of very heavy arty, limited withdrawal of forward units without any apparent tactical reason, use of smoke cover on own forward troops, use of missiles with HE warheads.
 - (d) Effect of our nuclear wpn. Estimated en casualties, equipment, and vehicles destroyed or rendered unusable, extent of area affected, and any obstacles to our movement created. Air or surface burst and estimated GZ.

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- (e) First contact with en; initial en arty fire and marked change in volume of arty fire; changes in en dispositions, includes changes of co or larger units, counter-attack indications, and change in en combat attitude; loss of contact; initiation of hostile atk; identification of new en units; location of barriers, en mine-fields, demolitions, obstacles, and other defensive works; information on CB activities; known or suspected espionage, sabotage, or subversion.
- b. Ground.
 - (1) Patrols coordinated by each higher HQ and G2. Night patrol routes to G2 by 1800 hours.
 - (2) Constant surveillance of en activities and movement will be maintained by ground electronic units. Subordinate units report location and primary sectors of ground radar sets to G2.
 - (3) SHELREP, MORTREP, and BOMREP to nearest arty HQ immediately.
 - c. Air.
 - (1) Requests. Air requests for preplanned visual and photographic recon must be submitted direct to TASE by 1900 hours daily. Immediate aerial recon requests may be submitted at any time.
 - (2) Reports.
 - (a) Comdrs will coordinate organic aviation visual aerial recon reports with G2 air.
 - (b) All pilot and observer personnel, regardless of the type mission flown, will report to the TASE any intelligence observed while in flight.
 - (c) All pilot and observer personnel will be briefed on the en situation and debriefed by the TASE or unit S2 in con-

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nection with any mission that may provide useful information.

- (d) Whenever necessary, the requesting unit will assist the TASE in the briefing of the pilot, observer, and/or aerial photographer.

- 7. Counterreconnaissance and counterinfiltration.
 - a. Civilians. Civilians infiltrating through div zone or sector to or from an occupied territory will be apprehended and turned over to CIC.
 - b. Unoccupied areas. Unoccupied areas between unit positions or axes will be reconnoitered periodically employing ground or air patrols as appropriate. Maximum use will be made of ground surveillance equipment. Responsibility will be from left to right.
 - c. Night illumination. See Annex A, Fire Support Coordination.
- 8. Counterintelligence.
 - a. Units check evacuated installations, bivouac, and assembly areas to insure no classified or identifying material left.
 - b. Pass system established in conformity with div security plan. Control measures and guard system inspected and tested frequently.
 - c. CP and directional signs use assigned code titles.
 - d. Known or suspected loss or compromise of codes or other classified material will be reported immediately to G2.
 - e. Communication security: Compliance with current SOI and SSI.
 - f. Daily aerial and ground visual and/or photo checks by all units to determine effectiveness of camouflage measures.
 - g. Security of nuclear wpn and delivery units will be coordinated with operation and counterintelligence plans by TOC.
 - h. Capture of any friendly personnel specially trained in nuclear warfare will be reported to G2 without delay.

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- i. Suspected en agents will be reported immediately to G2.
 - j. Recovered US or Allied military personnel claiming to have escaped from the enemy or evaded capture behind en lines will be evacuated immediately to div medical facilities and reported to div G2 for interrogation on a priority basis.
 - k. Coordinate feints, demonstrations, and ruses with this HQ.
 - l. Surrender of sizable number of en personnel or marked decrease in the combat effectiveness of en troops or units as a result of friendly use or threatened use of nuclear wpn will be reported to G2 without delay.
9. Elements isolated behind en lines.
- a. Using methods prescribed in Annex B, report locations, strengths, available communications equipment, maps available, and status of supply to parent HQ.
 - b. If designated as a stay-behind force, switch to frequency prescribed in stay-behind order.
- C. Procedures.
1. Fire support coordination. See Annex A, Fire Support Coordination.
 2. Security. Div G3 coordinates def against en ground, air, and abn atk. Each unit responsible for own local security. G3 supervises rear area security. G4 supervises area damage control. Support comd comdr coordinates and executes rear area security and area damage control plans of that portion of the rear area essential to the efficient functioning of the admin support units. Additional security for protection of div nuclear delivery units to be provided as required; requests to G3.
 3. Development of the situation. Units intensify recon and clear resistance within capabilities. Recon and security elements habitually locate obstacle bypasses for heavy vehicles.

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4. Tactical operations.
 - a. Contact maintained left to right, from supporting to supported units.
 - b. Tactical air support. Requests for preplanned missions submitted to tactical air support element (TASE) on the day prior to the desired activity by 1900.
 - c. Unit progress. After contact with en, units report hourly location of elements; or upon reaching assigned objective or crossing designated phase line or checkpoint.
 - d. Nuclear safety lines (NSL) and individual protective and other restrictive measures in relation thereto will be included in the coordination instructions of the OPORD.
 - e. Engr. Rept immediately to div engr location of own and enemy minefields and other barriers to include prepositioned nuclear wpn on standard DA report forms by most expeditious means available.
 - f. CB. See Annex F, Chemical and Biological Warfare, for defensive measures. Offensive use only on order of div comdr.
 - g. Smoke. See Annex A, Fire Support Coordination.
 - h. Defense against air atk.
 - (1) Aircraft fired on only when hostile markings are plainly visible or when aircraft commits hostile act.
 - (2) Maintain dispersion of vehicles and ground installations at all times.
 - i. Bomb and shell disposal. Units mark location of dud shells and bombs and report location to div ord off in six number coordinates. Use flash msg report for suspected dud nuclear wpn. Establish safety precautions.
 - j. Actions to minimize effects of enemy nuclear chemical and biological atk, see Annex C.
 - k. Risk criteria. Unless otherwise directed by div CG, nuclear troop safety criteria will be negligible risk for warned, exposed troops.

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D. Techniques.

1. Orders.

- a. Fragmentary orders normal during operations.
Maximum use of overlays, tables, and charts.
Written orders when time permits and for record.
 - b. Nuclear fires will be planned and detailed target analysis will be prepared in div FSE (TOC), based on applicable portions of corps plans, wpn allocated to div, and instructions from div G3. Necessary information will be included in appropriate annexes to plans and orders (fire spt, air spt, barrier, etc.).
 - c. Warning order to own troops for friendly nuclear and chemical atk.
 - (1) Time of atk for—
 - (a) Scheduled fires will be disseminated in the appropriate fire plan.
 - (b) On-call fires and fires on targets of opportunity will be disseminated by frag order through comd channels.
 - (2) Safety precautions for—
 - (a) Scheduled and on-call fires will be disseminated in div OPORD (par. 3____, Coord Instr).
 - (b) Fires on targets of opportunity will be disseminated by frag order through comd channels.
 - (3) Postponement of nuclear and chemical atks.
Transmit in clear by fastest communications means available the msg "Tarry, tgt no ----, instr later" followed by transmission of appropriate instructions.
2. Reports. The following report will be submitted by major comds and separate units:
- a. Intelligence (par. IIB).

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<u>Report</u>	<u>How submitted</u>	<u>Time</u>	<u>Precedence</u>
Flash msg report all types	By expeditious means	At once	Flash
BOMREP, SHELREP, and MORTREP	Radio, radioteletypewriter, or telephone	At once	Operational immediate
ISUM	Radio, radioteletypewriter, or messenger	As of 0600, 1200, 1800, and 2400 daily	Routine
Radioactive and toxic contamination	By expeditious means	At once	Operational immediate
b. Operations			
Unit progress report	By expeditious means	See para IIC4c	Operational immediate
Loss of contact with friendly units	By expeditious means	At once	Operational immediate
SITREP	Message form	Maj comd, separate task force, separate unit, as of 1800 daily; reach div HQ by 2200 daily.	Routine
Comd rept (to include intel, op, log, CA, and pers).	Formal written report	Maj comd, bn, sqdn, sep co as of 2400 end of each month by 5th of following month.	Routine

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E. Special considerations

1. Actions to minimize effects of nuclear atk. See Annex C, W/Appendixes 1, 2, and 3, Actions to Minimize Effects of Enemy Nuclear, Chemical, and Biological Attack.
2. Fallout, radiological monitoring, and survey. See Annex D, Prediction of Fallout, Radiological Monitoring, and Survey.
3. Army aviation. See Annex E, Army Aviation.
4. Chemical and biological warfare. See Annex F, Chemical, and Biological Warfare.
5. Mobility.
 - a. March organization. Div moves in march column (multiple routes when available) preceded by recon element, normally in five major march serials; three bde, div trp, and spt comd. Maximum use of darkness.
 - b. Control. March serials provide own security. Prior recon (routes and assembly areas); traffic control; guides; and posting and removing route markers are responsibility of serial comdr, supplemented (for main routes) and coordinated by div. Report hourly by location of heads of march serials. (Annex B, Methods of Reporting Location of Units.)
 - c. Priority. Nuclear delivery units, tactical troop movements, ambulance, ammunition vehicles, construction crews, staff cars, and messenger vehicles.
 - d. Density and rate.
 - (1) Night. Close column 75 vehicles per mile at average speed 10 MPH. Maximum speed 15 MPH.
 - (2) Daylight. Open column 20 vehicles per mile at average speed 15 MPH. Maximum speed: wheel, 25 MPH, track 20 MPH.
 - (3) Infiltration. Irregular dispatch, 3 vehicles per mile at 12 to 20 MPH.

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- (4) Time interval. Co is the basic march unit. Time interval between co march units, 2.5 minutes; between bn march serials, 5 minutes; between major march serials, 15 minutes.
- e. Halts. 15 minutes after each $1\frac{3}{4}$ hours of march (1 hr 45 min.) Keep road clear. Comdr determine cause of all unscheduled halts and take appropriate action. Refueling halts are prescribed. Crews make maintenance check. Disabled vehicles display yellow flags.
 - f. Lights. Blackout forward of army light line. Use of infrared authorized unless prohibited by div order.
 - g. Passing. Only when column is halted, except control, recon, general off, messenger, medical vehicles, and vehicles displaying red emergency flags. Convoys pass only on permission of halted column comdr.
 - h. Vehicle marking. Lead vehicle of serial carry blue flag. Rear vehicles in serial carry green flag.
 - i. Accidents. Off at tail of each march unit investigate and take necessary action.
 - j. Guards. Air guards in all vehicles. Traffic guards will be posted at head and tail of each halted march unit.
6. Barriers. Responsibility for preparation announced in OPORD. Responsible units submit barrier plan, overlays and schedules to G3. Minefields reported on DA Form 1355 (four copies) to engr.

III. COORDINATION OF ADMINISTRATIVE SUPPORT OPERATIONS

A. Coordinating Agency.

1. The CO spt comd is the div logistical operator and may activate the administrative support operations center (ADSOC). Div staff sections and units will provide representation to div spt comd (ADSOC). All report receiving agencies will maintain current information at the spt comd (ADSOC) by direct communication and liaison.

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2. CO, spt comd, will prepare a detailed SOP for the ADSOC. See Annex I.

B. Techniques. Following reports will be submitted by bn and separate co:

1. Logistics:

Special logistic reports (status of major items of equipment minus vehicles)	Radio, radioteletypewriter, or telephone.	When called for as of 1800 by 2200 to ADSOC with info cy to G4.
Combat vehicle status report	Radio, radioteletypewriter, or telephone.	Daily as of 1800 by 2200 to ADSOC with info cy to G4.
POL status report	Radio, radioteletypewriter, or telephone.	Daily as of 1200, by 1400 to ADSOC with info cy to G4.

2. Personnel:

Personnel daily summary	Electronic accounting machine card.	Daily as of 1800 by 2200 thru G1 to AG.
Casualty report	Electronic accounting machine card.	Daily as of 1800 by 2400 to div AG.

(In missing and missing-in-action cases, unit comdr will suspend forwarding of report for a period of 6 days, during which time all possible sources of information will be checked to verify that the individual is actually missing.)

C. Detailed Considerations.

1. Logistics.

a. Coordinate through div spt comd. See paragraph IIIA.

b. Material and services.

(1) Supply.

(a) General. Unit distribution of cl I, II, III, and IV by div to bde or separate bn trains area. Supply of cl V by supply point distribution.

(b) Cl I. One reserve ration, small detachment, in supply and transportation bn; three rations, individual combat for oc-

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- cupant in each vehicle. Supper ration cycle.
- (c) CI II and IV (except medical, repair parts, cryptographic, and electrical accounting). Units requisition through supply and transportation bn. Supply and transportation bn determines and maintains limited stocks of fast-moving items. Direct exchange items from supply and transportation bn. Requisitions for items in excess of allowances and regulated or critical items through comd channels.
 - (d) CI II and IV medical. Supplies requisition through medical bn.
 - (e) CI II and IV repair parts. Requisition through maintenance bn.
 - (f) CI II and IV cryptographic supplies. Requisition through signal bn.
 - (g) CI II and IV electrical accounting. Supplies and repair parts requisition through administrative co.
 - (h) CI III and IIIA. Issued on basis of empty tank truck, or container for container. Supply and transportation bn attach tank trucks to units as appropriate. Each wheeled vehicle carry minimum reserve of 10 gal; except 1/4-ton trk, 5 gal. Individual vehicles refuel at any supply point on route.
 - (i) CI V. Units maintain basic loads. Replace expenditures from ASP, or div ci V distribution point when authorized, on ammunition request signed by DAO. Establish and replace special ammunition load on orders. Flame fuel mixing and service equipment operated by Chemical Corps personnel. Separate ammunition requisition for nuclear and other special wpns cleared through DAO; firing unit

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provides transportation and security. Request for authority to exceed available supply rate to G4. Request for authority to stockpile ammunition in excess of basic load to G4, 24 hours prior to pickup time; request to be accompanied by ammunition requisition for quantity in excess of basic load.

- (j) Water. All water except that secured from engr water supply point considered contaminated. Water purification tablets will be issued to individuals.
 - (k) Salvage. Unit comdrs are responsible for collecting. Maintenance bn evacuate from subordinate units.
 - (l) Captured materiel. See paragraph IIB3.
 - (m) Cannibalization. Maintenance units cannibalize in accordance with AR 750-50.
- (2) Transportation.
- (a) Dispatch of six or more vehicles rearward of div support area requires clearance from movements element (ADSOC).
 - (b) Requests for additional transportation to specify number of persons or tonnage.
 - (c) Emergency supply by air. Requests for supply by air to spt comd (ADSOC), giving amount and identification of supply required, location and description of primary and alternate DZ or LZ; date, time, and method of delivery (airlanded, airdrop, parachute); DZ or LZ identification, summary of en situation vicinity of DZ or LZ; location of forward dispositions, and SOI data.
- (3) Services.
- (a) General. Report location of logistical installations and unit trains to spt comd (ADSOC).
 - (b) Decon. Decontamination of areas, sup-

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plies, and equipment in a nuclear, chemical, or biological atk will be limited to those essential to operations.

(c) Maintenance.

1. Engr. Unit comdr responsible for evacuation to axis of supply and evacuation or to fwd spt co salvage collecting point. Spt by fwd spt co includes all troops in immediate vicinity of supported bde. Mobile repair teams will repair equipment on site or exchange as appropriate. Mobile repair teams will habitually operate with the div engr bn.
2. Ord. Unit comdr responsible for evacuation to axis of supply and evacuation or fwd spt co salvage collecting point. Div maintenance bn assist on request. Spt by fwd spt co includes all troops in immediate vicinity of supported brigade.
3. Sig (except cryptographic). Tag sig equipment for repair with unit designation and nature of trouble and notify maintenance bn. Mobile repair teams will repair equipment on site or exchange as appropriate. Repair of cryptographic equipment direct to sig bn.
4. Electrical accounting. Report items of equipment requiring field or depot maintenance direct to administration co.
5. Medical equipment direct to medical bn.
6. Other. Cml, QM, and transportation repair to maintenance bn.

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- c. Medical evacuation and hospitalization.
 - (1) Med bn evacuates from unit aid stations. Report location of aid stations to ADSOC.
 - (2) Requests for medical air evacuation through movements element, spt comd (ADSOC) by most expeditious means.
- 2. Personnel.
 - a. Strengths. See paragraph IIIB2. Immediately following en nuclear or chemical atk on unit (platoon and higher), the senior member of each unit will estimate casualties and submit a report through comd channels by most rapid means available. As soon as possible thereafter, the senior member present will report through comd channels by most rapid means effective strength and loss of comdrs.
 - b. Replacements. Requisitions submitted daily to AG as of 1800 by 2200. Upon request of bde, bn, and sqdn comdrs, AG assigns replacements direct to co. Units receive replacements at replacement section, admin co, on notification by AG. Requisitions for unit replacements to G1.
 - c. Discipline, law, and order.
 - (1) Personnel awaiting trial, except those requiring physical restraint, remain with their units while in combat.
 - (2) In occupied areas, MP have authority and jurisdiction and are empowered to enforce laws and regulations and make arrests within div area without regard to nationality, service, or civilian status; and to deputize any US military personnel to assist them.
 - d. Prisoners of war and civilian internees.
 - (1) PW evacuated by capturing bde, bn, or sqdn to nearest div collecting point.
 - (2) Wounded PW evacuated through medical channels.
 - (3) PM operates div collecting point.

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- e. Graves registration (GRREG) service.
 - (1) Commanders of all echelons responsible for collecting, identifying and evacuating US, Allied, and en dead to GRREG collecting point, mass burials only on instructions from div HQ.
 - (2) One collecting and evacuation section of the GRREG platoon (augmented) supports each bde. Div collecting and evacuating section supports div troops.
 - (3) Isolated burials only when unavoidable. Report location graves to spt comd (ADSOC).
 - (4) Personal effects on body remain with deceased until arrival at cemetery.
 - (5) Units properly identify and forward personal effects found in area to supply and transportation bn without delay.
 - (6) Indigenous civilian dead interred by local civilians in accordance with local customs.
- f. Civilian personnel. When authorized to employ local civilian labor, requisition will be submitted to this HQ.
- g. Morale and personnel services.
 - (1) Leave and div rest camp quotas will be filled.
 - (2) Decoration and awards.
 - (a) No quotas.
 - (b) Recommendations submitted by any person having knowledge of action of any other person. Time for processing kept at absolute minimum.
 - (c) All recommendations to div review board through channels.
 - (d) Presentation without delay at appropriate troop formation, which when practicable, include associates and eyewitnesses.
 - (3) Unit mail delivery with cl I supply (unit distribution).

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- (4) Unit comdr arranges with finance section (through unit personnel section) for payment of troop, soldiers' deposits, and savings bonds.
 - (5) Army exchange items distributed with cl I supply.
 - (6) Special services. Priority to combat troops.
 - h. Personnel procedures. Personnel receiving battlefield commissions will normally be assigned to own unit and may be assigned to own co. Recommendations for commissions (other than battlefield) or promotion, when vacancy exists to div HQ.
3. Civil affairs.
- a. General. G5 (div augmentation) will expedite civilian relief support in locality affected by nuclear atk.
 - b. Traffic control. PM will restrict civilian movement into or out of locality affected by nuclear atk.
 - c. Internal affairs and government.
 - (1) Div retains responsibility for all CA activities in area except those specifically delegated to subordinate units.
 - (2) Units evacuate arrested civilians to div PW collecting point. Keep separated from PW.
 - d. Civil affairs units. CA units for designated communities called forward when capture of community is imminent.
 - e. Resources. Safeguard public works, utilities, fuel, and oil storage, or supply installations.
 - f. Logistical support.
 - (1) Max use of civilian resources for civilian relief, camps, control, and health.
 - (2) Minimum military support for civilian relief upon approval this HQ.
 - g. Reports. Units immediately report to G5 capture of key civilian officials, national treasuries, and stores of supplies.

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- Annexes: A—Fire Support Coordination
B—Methods of Reporting Location of Units
C—Actions to Minimize Effects of Enemy Nuclear,
Chemical, and Biological Attack
D—Prediction of Fallout, Radiological Monitoring, and
Survey
E—Army Aviation
F—Chemical and Biological Warfare
G—Rear Area Security
H—Signal
I —Administrative Support Operations Center
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J —Division Tactical Operations Center

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52d Mech Div
 FORT LEAVENWORTH, KANSAS
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Annex A (Fire Support Coordination) to SOP No 3

1. FIRE SUPPORT ELEMENT – TOC

- a. Composition. Chief of FSE, duty team chief; operations and intelligence representatives, div arty; naval gunfire off (NGFO); liaison off from fire spt agencies as required.
- b. Location, TOC, vicinity div main.

2. TARGET NUMBERING SYSTEM

- a. Div prefix. The letter “A” is assigned to 52d Mech Div, as an identification prefix, for all targets designated by div agencies.
- b. Unit prefixes. The following letter prefixes are assigned to fire spt agencies. The originating unit or agency will assign a number to each target, preceded by the two-letter prefix, “A,” and the unit’s identification letter. (Exceptions see en mortar and arty location below.)
 - A, B, C_____7/50 Arty (SP), 7/51 Arty (SP),
 7/52 Arty (SP), respectively.
 - D, E_____7/53 Arty, 7/54 Arty.
 - F_____52d Mech Div Arty.
 - G_____Air.
 - H_____Naval gunfire.
 - J_____Div FSE.
 - K, L, M, etc_____Attached units. Assigned by div
 FSE on attachment.

(Example: Tgt 101 designated by 7/51 Arty, AB 101.)

- c. En arty and mortar location.
 - (1) En arty locations are identified in the order and location by use of letters: AA (1st location), AC (3d location), BA (27th location). Confirmed locations will be followed by suffix “C.”
 - (2) En mortar locations are assigned a two-letter designation, preceded by the letter “M,” assigned by div

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arty, plus a second and third letter assigned alphabetically as the locations are identified: MAA (1st location), MAB (2d location), MBB (28th location). Confirmed locations will be followed by suffix "C."

- d. Groups of arty concentrations. Originating unit assign a number, preceded by div prefix (A) and followed by originating unit's identification letter. (Example: Third group of concentrations originated by 7/52 Arty: A3C.)

3. SAFETY

- a. Air safety. Planned restrictions on use of supporting arms during airstrikes controlled by div FSE. Orders transmitted through fire spt channels.

- b. Ground safety.

(1) No-fire line.

- (a) Reinforcing and general spt arty or naval gunfire execute fire missions short of no-fire line only after clearance by direct spt arty of supported unit.

- (b) When used, location is established by direct spt arty bn comdr in coordination with comdrs of supported unit(s).

(2) Bomb line.

- (a) Nuclear airstrikes, short of nuclear bomb line only when cleared through div HQ and approved by higher HQ.

- (b) Nonnuclear airstrike short of nonnuclear bomb line only when coordinated by div TASE which will specify whether Air Force control (visual or electronic) is desired.

- (c) Establishment and change.

1. System RED. Based upon recommendations of subordinate units (bde or bn level). Recommendations for bomb line location or changes in location direct to TASE.

2. System BLUE. Units send position reports giving location of leading troops and forecast future movement in code over air request net.

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3. TASE announces over air request net whether system RED or system BLUE is in effect.
 4. Changes in bomb line disseminated by TASE over air request net.
 - (3) Nuclear safety line. Established by FSE. Location and instructions in fire support plan and OPORD.
 - (4) Risk criteria. Unless otherwise directed by div CG, troop safety will be negligible risk for warned, exposed troops.
4. OBSERVATION
- a. 0-0 line. Div arty comdr responsible for requests to corps for changes as required.
 - b. Responsibility. Direct spt arty bn responsible for observation in zone of supported unit; general support and supported arty units observe as directed by div arty comdr; reinforcing units observe as requested by reinforced unit.
5. TACTICAL AIR SUPPORT
- a. TASE is responsible for informing requesting unit of final action taken on recon or offensive air spt requests, respectively.
 - b. Forward air controllers. Briefing at div TASE and subordinate unit. Disposition by TASE.
6. NAVAL SUPPORT
- a. Naval gunfire will be fired by direct spt ship of the echelon concerned, using naval gunfire procedures. If additional naval gunfire spt is required, it will be requested from next higher FSE through naval gunfire channels.
 - b. Shore fire control parties will control and adjust naval gunfire; adjustment of naval gunfire by arty FO in emergency only.
 - c. Admin support of naval parties by units to which attached.
 - d. If air naval gunfire liaison company (ANGLICO) attached, ANGLICO channels through unit FSE will be employed for naval gunfire and control of naval air.
 - e. Div arty survey section responsible for necessary survey of naval gunfire radar beacon.

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7. AIR DEFENSE ARTILLERY
 - a. ADE, TOC, responsible for restricting supporting air defense fires to insure safety of aircraft. Div AAE, TOC, coordinate flight of div aircraft with ADE.
 - b. TASE will inform ADE of all known air spt or recon missions in div zone.
8. ARMY AVIATION
 - a. One aircraft in air constantly in div zone or sector on observation or combat surveillance when flying conditions permit, coordinated by AAE.
 - b. Unit requests for mission aircraft direct to AAE when under centralized control.
9. SMOKE
 - a. All smoke missions approved through unit to div FSE.
 - b. Coordinate use with adjacent units.
10. BATTLEFIELD ILLUMINATION
 - a. Requests for battlefield illumination will be processed through unit. Requests must be approved by div FSE except as indicated below.
 - (1) No restrictions on illumination by organic weapons of combat unit.
 - (2) Emergency illumination by arty on authority DS arty bn comdr. Notification to div FSE by fastest means.
 - b. Decentralized control of searchlight and aircraft for battlefield illumination on div order only.
11. COMMUNICATIONS
 - a. Requests for nuclear fires from major comd through comd communication channels to div HQ.
 - b. Normal communication nets for immediate air requests will be used in following priority:
 - (1) Div air request radio net.
 - (2) Wire or radio from arty liaison officers through comd channels to TASE.
 - (3) Other wire or radio.
 - (4) Spot report receiver system (UHF-voice) in emergency only.

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- c. Request for immediate fires sent by electrical means are assigned a precedence of operational immediate and are preceded by the words "IMMEDIATE AIR REQ." Msg thus sent takes priority over other operational immediate msgs and those of lower precedence.
- d. Combat units down to and including bn and sqdn HQ will enter station in div air request radio net; net frequency to be announced; call signs in SOI.
- e. All enemy active ECM will be reported by most expeditious means to div CEE, TOC.

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52d Mech Div
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Annex B (Methods of Reporting Location of Units) to SOP No 3

1. GENERAL

Standard method, normal use. Alternate methods, as directed or in emergency.

2. TIME OF REPORTS

Hourly or as control (check) points are reached.

3. STANDARD METHOD

Control (check) point report. Procedure similar whether control (check) point location on routes of march, on phase lines, or general throughout area.

- a. On a map or overlay of div zone, terrain features having distinguishable features recognized on the ground (towns, RJ, stream junctions, hilltops, etc.) are inclosed in small circles and numbered consecutively. Area covered will normally extend at least 4,000 meters beyond div objective.
- b. Report by giving (code for unit) location or distance and direction from control (check) point and direction of movement.
- c. Overlay showing new numbered control (check) point will be issued by G3 each time a complete OPORD is issued, or more frequently as directed.
- d. Bde, bn, sqdn, and div arty issued blocks of numbers for selection of additional control (check) points within their zones for subordinate units.

4. ALTERNATE METHODS

- a. Coded map coordinates. Numerical coordinates are encoded to letters using a code prepared by div sig off. (See div SOI.)
- b. Terrain code name. Similar to standard control (check) point method, except that code names instead of numbers are used to designate terrain features.

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- c. Ten square grid map code.
- d. Thrust line map code. See FM 21-26.

5. SECURITY

- a. If standard control (check) point overlay compromised, take following action:
 - (1) Report to G2 without delay.
 - (2) G3 will direct one or more of following be adopted:
 - (a) Prearranged number be added to or subtracted from number on control (check) point overlay.
 - (b) Issue new control (check) point overlay with control (check) point renumbered.
 - (c) Use one of alternate methods.
- b. If one of alternate methods compromised, report fact to G2, and G3 will direct the issue of new code names of reference point(s), as applicable, or direct use of another method.

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52d Mech Div
FORT LEAVENWORTH, KANSAS
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Annex C (Actions to Minimize Effects of Enemy Nuclear, Chemical, and Biological Attack) to SOP No 3

1. GENERAL

- a. This annex prescribes normal procedures for def against and actions following enemy nuclear atk.
- b. Subordinate unit SOP's will conform.
- c. See Annex F, Chemical and Biological Warfare, for procedures peculiar to CB warfare.

2. PLANNING

- a. Organize and designate personnel for control and assessment team (CAT) (app. 1).
- b. Organize and designate personnel for rescue, labor, and decontamination squads (app. 2).
- c. Orders.
 - (1) Comdrs concept habitually in sufficient detail to permit continued and, when necessary, independent action by subordinate units.
 - (2) Div designates emergency assembly areas and/or alternate positions within zone or sector. Use only on div order. Subordinate HQ designates rallying points.
- d. Offense.
 - (1) Predict own disposition at critical stages of offense.
 - (2) Assume en nuclear or CB atk against predicted disposition at point of maximum vulnerability.
 - (3) Evaluate effect on own troops.
 - (4) Determine actions to offset effect on en atk to continue mission. Prepare contingency plans to include essential draft OPORD and checklist of actions to be taken in chronological order.
- e. Defense.
 - (1) Determine maximum vulnerability of own dispositions.
 - (2) Assume en nuclear or CB atk in areas of maximum vulnerability.

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- (3) Estimate damage to own troops and effect on def plan.
- (4) Determine actions necessary to offset effect of en nuclear or CB atk and incorporate, as appropriate, in counterattack plans.
- f. Fallout. Plan for fallout (concurrently with b, c, and d above).
 - (1) Assume en surface bursts against own predicted dispositions at various periods in operation.
 - (2) Evaluate effect on troops and OPLAN.
 - (3) Determine action necessary to offset effect of en nuclear atk to include—
 - (a) Warning order.
 - 1. Location of GZ and time of burst.
 - 2. Probable fallout area and arrival times.
 - 3. Immediate action to be taken.
 - (b) Decontamination plan.
 - (c) Displacement plan.
 - (d) Fallout survey plan.
 - (e) Unit monitoring plan.

3. OPERATIONS

a. General.

- (1) Priority of tasks. Subsequent to en nuclear or CB atk. Primary tasks are—
 - (a) Continue mission.
 - (b) Reestablish comd and communication and implement monitoring plan if en wpn was a surface burst.
 - (c) Determine and report remaining combat effectiveness of damaged unit(s).
 - (d) Reorganize damaged units.
- (2) Alternate plans. Bn size or larger units prepare and keep current alternate tactical plans, including displacement and decontamination plans. Coordinate these plans with higher, lower, and adjacent HQ.
- (3) Passive protective means.
 - (a) Units habitually disperse, and during halts dig in all personnel, to include overhead cover

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- when permitted by situation. Maximum personnel remain in, or in vicinity of, armed vehicles consistent with essential operations.
- (b) Construct protective shelters for personnel and command installations in stabilized defensive positions.
 - (c) Make maximum use of armed vehicles.
 - (d) Following nuclear burst, maximum protection, await further orders.
- (4) Movement. Units make maximum use of night movement, multiple routes of march, and dispersion.
 - (5) Dispersion. Maximum consistent with assigned mission and existing situation.
 - (6) Camouflage and deception means. Enforce camouflage discipline and use of natural concealment at all echelons. Coordinate deceptive means, including dummy installations, with div plans.
 - (7) CAT. CAT dispatched to areas of combat and combat support units following a nuclear detonation and when communication with these units is lost upon instructions from div G3 element, TOC. CAT dispatched to areas of an administrative support unit upon instructions from area damage control element, ADSOC (app. 1).
- b. Actions immediately following nuclear atk (automatically without orders).
- (1) Individual and combat vehicle crews. Establish contact with immediate superior.
 - (2) Units.
 - (a) Turn on radiac instruments and start continuous monitoring.
 - (b) Report to next higher HQ element out of contact.
 - (c) Reestablish communication with subordinate elements.
 - (d) Protective measures.
 - 1. Immediate maximum protection.
 - 2. Prepare for early movement.
 - 3. Displace as necessary to avoid radiation hazard and continue mission.

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- (e) Avoid entry into area when predicted dose rate to personnel equals or is greater than ----- r/hr at time of entry. Prevent cumulative dose over ----- r/day or ----- r/week. (Figures to be developed from guidance provided by higher headquarters.)
- (f) Flash report information relative to nuclear blast include—
 - ALFA (date and time of nuclear burst).
 - BRAVO (Location of ground zero UTM coordinates, if known).
 - CHARLIE (azimuth from observer to fireball).
 - DELTA (utm grid coordinates of observer).
 - ECHO seconds (flash-to-bang time).
 - FOXTROT mils (fireball width).
 - GOLF mils (cloud-top angle at H+10 min).
 - HOTEL mils (cloud bottom angle at H+10 min).
 - INDIA mils (cloud width at H+10 min).
 - JULIET (height of burst) (1—surface, 2—air, 3—unknown).
- (g) Follow with OPERATIONAL IMMEDIATE msg, giving all available details.
- (h) All units report initial time of arrival and intensity of fallout in area. Thereafter, report as directed to CBRE, TOC.
- (3) Div HQ, div arty, ea bde, div spt comd, inf, tank, arty, avn, engr, sig bn, and sqdn.
 - (a) When required, dispatch CAT and report action.
 - (b) Report Army aircraft immediately available for recon.
 - (c) Prepare to release attached and uncommitted combat elements.
- (4) Uncommitted units. Prepare for immediate movement.
- (5) 2/23 Armd Cav. If not committed, provide one platoon with monitoring equipment available for immediate movement.

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- (6) 52d Avn Bn.
 - (a) Dispatch aircraft to survey and monitor burst area and to observe enemy.
 - (b) Flash report (par. 3b(2) (f)).
 - (c) Hold two utility helicopters at div airstrip for use by spt comd CAT.
- c. Battlefield decontamination. See TM 3-220.
- 4. LOGISTICS
 - a. Support. Units operating in damaged areas obtain required supply from nearest available source.
 - b. Evacuation and hospitalization.
 - (1) Affected units accomplish maximum self-aid.
 - (2) Nonmedical personnel will assist in routine medical care and evacuation only on div order.
 - c. Transportation.
 - (1) Include alternate means of transportation, unit, and route priorities in all pertinent plans.
 - (2) Only vehicles engaged in, or supporting area damage control activities or engaged in combat operations enter damaged area.
 - (3) 52d MP Co prepare to reinforce present traffic control posts and establish additional traffic control posts, utilizing organic MP or other units as directed.
 - d. Services.
 - (1) Decontamination limited to that essential to operations.
 - (2) Priorities for repair and/or reconstruction.
 - (a) Signal command transmission facilities.
 - (b) Medical facilities.
 - (c) Supply and vehicle maintenance facilities.
 - (3) Priority for engr decontamination employment.
 - (a) Comd and communication installations.
 - (b) Routes.
 - (c) Logistic including medical installations.
 - (d) Combat areas.
 - e. Miscellaneous. Comdr or senior surviving off responsible for damage control operations in own area.
- 5. PERSONNEL
 - a. Strengths. As soon as practicable, unit or CAT comdrs forward following:

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- (1) Number and type of casualties.
 - (2) Effective strength of affected units.
 - (3) Loss of comdrs, if applicable.
- b. Replacements. Replacement section, admin co, insure that all incoming personnel are familiar with current doctrine and procedures for survival under conditions of nuclear warfare.
- c. Discipline, law and order. 52d MP Co—
- (1) Prepare to establish MP patrols in rear of affected units, utilizing organic MP or other units as directed.
 - (2) Prepare to assist in establishment of emergency refugee collecting point. Execute on div order.
- d. Graves registration. Mass burial only on order this HQ.
6. CIVIL AFFAIRS
- a. Develop and maintain current plans for control of civilian population in event enemy nuclear, chemical or biological atk.
 - b. Plan to establish emergency refugees collecting point. Execute only on div order.
 - c. Recommend measures to be taken by civil defense.
7. COMMAND
- a. All units within div area may be assigned to damage control mission. Combat and combat support units on div order only. Administrative or logistical units on order div spt comd commander.
 - b. Allowable doses—as announced by higher HQ.

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- Appendixes: 1—Control and Assessment Teams (CAT)
2—Rescue, Labor, and Decontamination Squads
3—Area Damage Control

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FORT LEAVENWORTH, KANSAS
1 Sep 19__

Appendix 1 (Control and Assessment Teams) (CAT) to Annex C
Actions to Minimize Effects of Enemy Nuclear, Chemical, and
Biological Attack to SOP No 3

1. MISSION

Reestablish military control over elements hit by enemy
nuclear, chemical, biological atk. This is accomplished by—

- a. Reestablishing comd and communications.
- b. Assessment of damage to unit.
- c. Rehabilitation of unit to continue mission.

2. ORGANIZATION

Div HQ, div arty Hq btry, ea bde Hq co, div spt comd HQ and
ea inf, tank, arty, avn, engr, sig bn, and armd cav sqdn
form at least one CAT as follows:

- a. Senior off—comdr. (May be technical service officer in div
spt comd, otherwise must be of an arm.)
- b. Medical representative (when available)—coordinate
medical air evacuation.
- c. Supply representative—determine extent of supply re-
quired.
- d. Engr representative (when available)—determine engr
effort required.
- e. Radiological monitoring team—initial determination of
extent of residual contamination.
- f. Communications detachment—capable of replacing mini-
mum communications at next lower echelon.
- g. Security element—capable of securing CAT.
- h. Transportation (including available Army aircraft)—
capable of lifting CAT.
- i. PM representative (when available)—traffic control in
affected area.
- j. Cml representative (when available)—initial determina-
tion of nature and extent of cml contamination.

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3. DUTIES

In priority—

- a. Move to damaged area without delay.
- b. Determine and report remaining effectiveness of damaged unit.
- c. If necessary, assume control of damaged units to restore comd communication.
- d. Take action to resume unit's mission.
- e. Request med, engr, avn, and GRREG assistance required.
- f. As soon as practicable, report following:
 - (1) Number and type of casualties.
 - (2) Effective strength of damaged units.
 - (3) Loss of comdr, if applicable.
 - (4) Location of CAT CP.
- g. Report (location, dose rate, time of reading) all radiation areas over 1 rad/hr and chemical contamination discovered in course of operation.

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Appendix 2 (Rescue, Labor, and Decontamination Squads) to Annex C Action to Minimize Effects of Nuclear Chemical and Biological Attacks to SOP No 3

1. LIGHT RESCUE SQUADS

- a. Each co, btry, or similar unit, except units furnishing heavy rescue sqd or labor sqd, will organize and have available for use one lt rescue sqd consisting of at least one NCO or specialist and six EM. Functions of sqd include rescue of casualties (when removal does not involve use of heavy equipment), and administration of first aid when necessary. Medical items required to be furnished by med bn.
- b. Equipment for each light rescue sqd will include—
 - (1) two trk, 1/4-ton; or one trk 3/4-ton.
 - (2) one pick.
 - (3) two shovels.
 - (4) two axes.
 - (5) two cutters, wire.
- c. Sqd will be used when necessary or as directed for rescue work. Rescue sqd formed by combat units will normally be only for local use by comdr thereof.

2. HEAVY RESCUE SQUADS

- a. Maint bn and engr bn will organize and have available four heavy rescue sqds. Each sqd will consist of at least one off and twelve EM. Ea sqd may be augmented as determined by unit comdr in consideration of unit equipment, personnel available and work to be performed.
- b. Function of heavy rescue sqd includes extrication of trapped casualties and salvage of materiel in damaged areas. Equipment for heavy rescue sqd should include following items when authorized in TOE:
 - (1) One trk, 2 1/2-ton, and trailer, 1 1/2-ton.
 - (2) Two bars, pry.

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- (3) One differential chain hoist, 1½-ton or 3-ton.
- (4) Two snatch blocks for 1-in. manila rope.
- (5) Two hacksaws.
- (6) Two cold chisels.
- (7) Manila rope, 1-in., 300 ft.
- (8) Two hydraulic jacks.
- (9) One acetylene welding and cutting equipment.
- (10) Two hooks, grappling.
- (11) Four road flares.
- (12) Four crowbars.
- (13) One crosscut saw.
- (14) Two picks.
- (15) Four shovels.
- (16) Two sledges.
- (17) Two hatchets.
- (18) Portable lights.
- (19) Four flashlights.
- (20) Four pr rubber gloves.
- (21) Two buckets.
- (22) Two wire cutters.
- (23) One trk, wrecker.
- (24) One bulldozer.

3. LABOR SQUADS

- a. The Spt comd, Hq co and band, and the admin co will org one labor sqd each consisting of at least one off and twenty EM. Each sqd will have two 2½-ton trk and other equipment to include first aid equipment and other items as prescribed.
- b. Labor sqd performs tasks which do not require specialized training or equipment. Such tasks include clearing debris by hand, search for casualties, evacuation of casualties, salvage of material, and decontamination. Labor sqd may augment MP's or remove military supplies from areas endangered by fire. Unexploded bombs and other dangerous materiel will normally be removed under technical supervision.

4. DECONTAMINATION SQUADS

- a. Ea co, btry, or similar unit will train and have available

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an emergency decontamination sqd consisting of at least one NCO or specialist and nine EM. Functions of sqd include emergency decontamination of rescue personnel and equipment which may become contaminated from radiation, chemical, or biological effects.

b. Equipment and supply for emergency decontamination sqd should include following items. Equipment and supply, if not organic, will be furnished as required.

- (1) Shovels.
- (2) Radiation detection instruments (survey meter and personnel monitoring instrument).
- (3) Chemical agent detection kit.
- (4) Brushes, scrubbing.
- (5) Two pr gloves, rubber.
- (6) Two cans, corrugated, 16 and 32 gallon.
- (7) Four ea DANC solution unit, 3 gallon, M-4.
- (8) Bandage scissors.
- (9) Ten each protective field mask with component protection kit, M5A1.
- (10) One rake.
- (11) Four brooms.
- (12) Rags, 20 pounds.
- (13) Two buckets, 14 qt.
- (14) One heater, immersion type.
- (15) One ax, single bit.
- (16) Four ea decontamination agent, ST8, 50-pound can.
- (17) Soap, issue, 5 pounds.
- (18) Leather dressing, vesicant gas resistant, M-2, 10 cans.

c. Sqd will be used when necessary or as directed to assist in recovery work.

5. MEDICAL TEAMS

a. Medical bn organize and be prepared to dispatch three medical teams on 30-min notice. Each medical team will consist of 1 MC off, four senior aid men, four litter bearers, three ambulance orderlies, one light truck driver, four aid men, five ambulance drivers.

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- b. Equipment and supplies for medical teams will include—
One 1/4-T truck w/radio.
Five ambulances.
First aid equipment.
Medical equipment and supplies.
CB decontamination material as available.

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Appendix 3 (Area Damage Control) to Annex C Action to Minimize Effects of Enemy Nuclear Chemical and Biological Attacks to SOP No 3

1. APPLICATION

- a. The provisions of this appendix will apply to all units and installations within the div area except as modified by current area damage control and operation plans.
- b. Appropriate area damage control measures will be as prescribed by div arty, bdes and each bn sized unit for their respective areas and will be coordinated with div spt comd. Passive def measures will be habitually employed. Mutual assistance between units in the conduct of area damage control will be limited only by the requirement of the tactical situation.

2. GENERAL

Div spt comd is responsible for damage control in div rear area under general staff supervision of G4. All installation and unit commanders prepare area damage control plans to minimize the effect of damage occurring in their areas. Each installation furnishes damage control teams or spt to other units within the div rear area as directed by the div spt comd in accordance with the overall plan. The CO, div spt comd, supervises and coordinates the execution of area damage control plans.

3. RESPONSIBILITIES

- a. Div G4 is responsible for general staff supervision of damage control in div area. He coordinates overall plan and its implementation with G3 (including planned movement of units within div area) and with G2.
- b. CO, div spt comd, is responsible for—
 - (1) Preparation of area damage control plans. Plans include provisions for—

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- (a) Communications.
 - (b) Tng and equipping labor, rescue, and decontamination sqds by units within div spt area, including specific instructions on where and when sqd reports when plan is implemented.
 - (c) Employment of area damage control personnel including those from other units or installations in the div area.
 - (d) Emergency food, clothing, and water.
 - (e) First aid and evacuation of patients.
 - (f) Control measures to prohibit nonessential movement and to provide for rerouting of traffic to restrict access into damage control area except essential damage control personnel and units.
 - (g) Instruments to survey, mark, and report all contaminated areas, utilizing trained personnel from local units.
 - (h) Be prepared to assist other affected areas when directed.
- (2) Supervision and coordination of damage control when the area damage control plan is implemented.
 - (3) Employment of damage control units including their movement within the div rear area, when the area damage control plan is in effect.
 - (4) Admin spt in coordination with G4 for area damage control.
 - (5) Determine manpower and materiel needed for area damage control purposes.
 - (6) Assistance to be provided by or to nondiv units located within div spt area.

4. MEDICAL EVACUATION AND HOSPITALIZATION

Div spt comd will coordinate with div surg for medical service and evacuation necessary for damage control in the div area.

5. SUPPLY

Div spt comd will coordinate directly with appropriate units

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for necessary supply for area damage control and salvage operations.

6. TRANSPORTATION

a. Traffic control and regulation.

(1) Only vehicles engaged in area damage control activities or in combat operations within the area will be permitted to enter and operate in the damage area.

(2) Traffic will be controlled within the damage area by MP units as directed by the spt comd commander.

b. Requirement for transportation. Requirements for transportation of damage control operations will be submitted to ADSOC.

7. PERSONNEL

PW confined in div area will be provided protection facilities and will be oriented as to procedures to be followed in case of nuclear, chemical, or biological atk.

8. CIVIL AFFAIRS

a. Maximum utilization will be made of civilian personnel, supplies and facilities to spt area damage control operations. Military spt of civil defense operations will be provided only upon div order.

b. CA units located within div area will provide liaison between all military HQ and civil authorities and will coordinate the employment of civilian spt for area damage control operations.

9. RECORDS AND REPORTS

a. Periodic reports on availability of area damage control squads and other damage control services will be made by each organization and separate unit as directed by CO div spt comd. (See Annex D, to 52d spt cmd SOP, No 4, dated 15 Sep 19__.)

b. All units or installations moving within div area report departure, estimated time of arrival, and actual time of arrival to div traffic HQ.

c. Personnel entering damaged area to assist in reestablishing control will report to CAT.

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10. SIGNAL COMMUNICATION

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Annex D (Prediction of Fallout, Radiological Monitoring (RADLMON), and Survey (RADLSV) to SOP No 3

1. APPLICATION

Div SOP applies except as modified by div orders. Subordinate unit SOP's will conform.

2. REFERENCE

DA TC 101-1. (Note. Unit SOP's must reflect the procedures and techniques prescribed in the current version of DA TC 101-1.)

3. ORGANIZATION

Current organization for combat.

4. DUTIES AND RESPONSIBILITIES

a. General staff.

- (1) G2. Supervise the CBRE, TOC, in dissemination of fallout predictions resulting from enemy employment of nuclear weapons; dissemination of radiological contamination charts; and planning RADLSV and RADLMON.
- (2) G3. Coordinate with the CBRE concerning planned friendly nuclear atk including predictions pertaining thereto.
- (3) CO, spt comd. Supervise procurement, distribution, and maintenance of RADIAC instruments.
- (4) G5. (G3 when div has not been augmented.)
 - (a) Establish procedures and channels for exchange of radiation information with appropriate civil agencies.
 - (b) Establish local civil def measures and capabilities to conduct RADLMON and RADLSV operations.
 - (c) Supervise RADLMON and RADLSV operations of local civil def organizations.

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- b. Other staff responsibilities.
- (1) FSE.
 - (a) Informs the CBRE of the details of planned nuclear weapons employment in order that the CBRE can prepare and disseminate prestrike and poststrike fallout predictions.
 - (b) Disseminates meteorological data to CBRE each 2 hours.
 - (2) Aviation officer.
 - (a) Conducts training as required to insure all assigned aviators are qualified to fly aerial RADLSV and RADLMON missions.
 - (b) Furnishes aircraft and pilots for aerial RADLSV and RADLMON missions as required.
 - (c) Insures maximum number of authorized survey meters are mounted on aircraft normally used for recon and observation missions.
 - (d) Coord with CBRE for planning and conducting aerial RADLSV.
 - (3) Engr. Provides personnel and equipment as required for decontamination operations involving use of engr earth-moving equipment. Coordinates with CBRE on radiological information associated with employment of ADM.
 - (4) Spt comd. Procures, distributes, calibrates,, and maintains radiac instruments as authorized by current TOE and TD.
 - (5) Cml officer.
 - (a) Operates CBRE.
 - (b) Plans, directs, and coordinates RADLSV.
 - (c) Supervises operation of attached chemical units.
 - (d) Supervises decontamination operations.
 - (e) Prepares and disseminates fallout predictions.
 - (f) Maintains radiological situation map.
 - (g) Prepares and disseminates current contamination charts to div staff officers, corps, and subordinate and attached units as required.
 - (6) PM. Provides traffic control into, within, and around contaminated areas.

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c. RADLMON.

(1) Periodic RADLMON. All units of co size or larger will maintain a monitor on duty with the CP on a continuous basis. In co-size units (and smaller units operating independently), the monitor will make a routine check of the unit area every 12 hours and will check a designated point within the CP area each hour.

(2) Continuous RADLMON.

(a) Continuous monitoring will be initiated—

1. On order of unit CO.
2. On order of this HQ.
3. Five minutes before friendly detonations.
4. When a nuclear burst is observed or reported by higher or adjacent units.
5. During all movement and recon or patrol activity.
6. On receipt of a fallout warning.

(b) During continuous monitoring, all survey meter readings will be made in the same location, except when units are moving or other factors make it impracticable to do so. The monitor will note and report the following information to the next higher hq:

1. The location, dose rate, and time of the initial reading of 1 r/hr or higher.
2. The dose rate, location, and time an increase or decrease of 10 r/hr is recorded until the dose rate reaches 50 r/hr and an increase or decrease to 50 r/hr will be reported thereafter.
3. The shielding factor for the shelter or vehicle of the monitor. This shielding factor will be used to compute the outside (unshielded) dose rate.
4. The highest dose rate recorded.
5. Summary report described in d (4), below.
6. During movement, units will report as in (a) and (b), above.

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- (c) Continuous monitoring will stop—
1. On instructions from higher HQ.
 2. When the dose rate level falls below 1 r/hr (except for units on the move).
- d. Reporting procedures.
- (1) Initial report. The initial detection of radioactivity will be broadcast over the div warning/broadcast net as a FLASH msg in clear text giving location, dose rate, and time detected.
 - (2) Subsequent reports. Subsequent reports will be screened and consolidated by div arty, bdes, sep bns and sqdn, and div spt comd. These reports will include the general level of radioactivity in the area, and the location and time detected of highest dose rate in the area. Reports will be submitted while the dose rate in the area is rising, at the first indication the dose rate is beginning to decline, and thereafter as directed by div. Report by highest precedence (other than FLASH) the time and location when peak dose rate has been reached when a total dose of 50 r has been received in less than 30 min, after ending of the fallout. Other reports will be as directed by this HQ.
 - (3) Communications. Reports will be submitted by teletype or voice through the area communications system. Units temporarily out of contact with the area communication center will use the div intelligence net as an alternate means.
 - (4) Summary reports. Upon direction of div HQ, units will submit a summary report consisting of an overlay showing the radiation situation in the area as compiled from monitoring reports.
- e. Training.
- (1) Unit commanders will train a minimum of two monitors to operate each organic survey meter. All qualified aerial observers will be trained to perform aerial RADLMON and RADLSV duties.
 - (2) Co sized units will train a control party and a mini-

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- num of two survey parties for each RADLSV meter authorized.
- f. RADLSV. RADLSV will be conducted only when essential radiological information cannot be obtained by RADLMON.
- (1) Div controlled RADLSV.
- (a) Aerial RADLSV. During aerial RADLSV the aircraft flies at the lowest possible constant altitude and speed along the designated course. Readings are taken at equal time intervals and recorded by the monitor on DA Form 1971-1-R (aerial). The location, altitude, dose rate, and time of reading will be reported in clear text by radio directly to the CBRE unless otherwise directed. The air-to-ground correlation factor will be determined by the monitor for each RADLSV and included with his initial report.
- (b) Ground RADLSV. Ground RADLSV parties will follow the prescribed survey course and will report the location, dose rate, and time of reading at points designated by the CBRE or the control party. Reading will be taken with the survey meter held approximately 1 meter above the ground. In open areas, readings will be taken at least 9 meters away from buildings or other large structures. In built-up areas readings will be taken in the center of the street or street intersection. Mounted monitors using a survey meter without an external probe will determine the shielding correlation factor and include this factor in the first survey rept. Readings will be recorded on DA Form 1971-R (gnd). Reports will be submitted as directed by this HQ.
- (2) Unit controlled survey. Units will conduct surveys as outlined in (a) above. Upon completion of the survey, the results will be forwarded to the CBRE.
- g. Communications. Intelligence nets will be used to report

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monitoring and survey information. The area communication system will be used by bde and separate units in reporting to div. Arty units may also use arty nets.

5. UNIT ACTIONS

When fallout is initially detected, the unit commander will make an initial report and direct the following action :

a. In bivouac, defense positions, or administrative installations.

(1) Within the limits of his mission, take shelter in prepared position, existing buildings, inside vehicles, etc. If no shelter is available, begin construction of hasty field fortifications with overhead cover. Upon movement into an area, the preparation of shelters will be habitual, within limits of the mission.

(2) Movement of subordinate units within the assigned sector or area to take advantage of lower dose rates or better shelter is authorized whenever 50 r has been received in 30 minutes or less. Such movement is limited to that necessary to regain communication with this HQ, find effective shelter, or reduce the dose rate to 50 r/hr.

b. During offensive action.

(1) If movement is not toward the burst, continue the mission until a co (or major portion of a co) has accumulated 50 r in 30 minutes or less. Then have affected co take all available shelter and report location to this HQ. In absence of communication with div, have the affected co halt, take shelter, and determine a favorable direction to move. If shelter is not available, movement of affected co is authorized until the dose rates are reduced to 50 r/hr. Attempt to continue the advance in an area in which the radioactivity does not exceed 50 r/hr.

(2) If movement is obviously toward the burst, continue the advance until dose rate of 50 r/hr is detected. Report location to this HQ and take all available shelter. In absence of communication with this

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HQ, follow the procedure outlined for a co in (1) above.

c. During administrative movement (motorized).

- (1) Even if the detonation of a wpn is observed, continue the movement until dose rate of 1 r/hr is detected.
- (2) At any time a dose rate of 1 r/hr is detected, clear the road and halt, taking advantage of available shelter, and send a motorized or mechanized RADLMON party forward to survey the route.
- (3) Procedures for the RADLMON party are as follows:
 - (a) Proceed until a dose of 20 r has been accumulated. If intensities are still rising, the RADLMON party will return and report the location and situation. RADLMON parties will then be dispatched to locate an area of 250 mr/hr or less or a dose rate specified by this HQ. Upon approval of this HQ, the entire column will be moved to that area. RADLMON and reporting as prescribed in par. 4c and d will be continued.
 - (b) If a dose rate of 20 r is not received until dose rates begin to decrease, continue until dose rates return to 1 r/hr. At this time, halt and wait 5 min.
 1. If dose rate has not increased to more than 2 rad/hr, return to column and report. On the return trip, observe and record the location of the maximum intensity. Column then continues march and crosses contaminated area as rapidly as possible.
 2. If after waiting 5 min, dose rates does exceed 2 r/hr, continue along route of march until intensity again returns to 1 r/hr, then proceed as above.
 3. If after two such attempts the 1 r/hr line is not stabilized for a minimum period of 5 minutes, the monitor will return to the column, and the location and situation will be reported. RADLMON parties will then

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be dispatched to locate an area of 250 mr/hr or less or an intensity specified by the HQ. Upon approval of this HQ, the column will move to that area. RADLMON and report will be continued as prescribed in paragraph 4c and d.

- d. Report on nuclear atk. When an enemy nuclear atk occurs, all units equipped with aiming circles, transits, and theodolites, will immediately orient the instrument on the burst. An azimuth reading to the center of the stem will be taken and reported as soon as possible after each detonation. Readings of the elevation to the top of the cloud and azimuth to the edges of the cloud at its widest point will be taken at 10 minutes after detonation. Information outlined on attached "Nuclear Burst Report" will be submitted to the CBRE using the area communication system. (Arty units may submit this information through arty channels to the FSE.)

6. DECONTAMINATION

(Se Annex F, Chemical and Biological Warfare, and par. 4, app. 2, to Annex C.)

7. INDIVIDUAL ACTIONS UNDER FALLOUT

Actions that can be taken by individuals to minimize the effects of fallout are outlined below. Individuals will be directed to take such of the following actions as are consistent with the mission of the unit and nature of the action in which the individual is involved.

- a. Obtain the following protection in the order listed; remain in the shelter until the area has been determined safe or exit is required for urgent reasons.
- (1) Underground shelters.
 - (2) Foxholes with overhead cover. Foxholes will be continually improved as time permits.
 - (3) Armed vehicles. Vehicles will be used when shelters listed in (1) and (2) above are not available and time precludes constructing such shelters.
 - (4) Buildings. Buildings of masonry construction will be

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- used in preference to those constructed of wood or other materials.
- (5) Clothing, shelter halves, etc. Exposed personnel will, when possible, cover all exposed skin and further cover clothing with such items as shelter halves, blankets, canvas, etc.
 - (6) Sandbags in vehicles. Vehicles operating in contaminated areas will, where practicable, be equipped with sandbags on the floors and sides to reduce radioactivity being emitted from the ground.
- b. When fallout has ceased, individuals will, where practicable, decontaminate as follows:
- (1) Brush clothing and equipment thoroughly to remove fallout particles. This should be done in an area away from that which the individual will occupy.
 - (2) Bathe thoroughly, preferably by showering, and change clothing. Insure personal effects such as billfolds, watches, etc., are decontaminated; otherwise discard them.
 - (3) Decontaminate individual equipment by brushing, wiping, and, as appropriate, scrubbing.
 - (4) Decontaminate the immediate area in which the individual is located by hosing or turning the soil as appropriate. (For example, the soil within a foxhole should be removed and the soil around a foxhole turned over or covered to bury the fallout; tents, vans and other vehicles should be hosed.)
 - (5) Clean other equipment as required. When available, high pressure steam or high pressure air is most effective.
- c. Maintain a full canteen of water and sufficient rations to permit the individual to remain in a protected area for a minimum of 24 hours.
- d. Reduce stay time in contaminated areas. Only tasks which are vital to accomplishment of the unit mission should be performed in radioactive contaminated areas. Individuals entering the contaminated area should have

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maximum protection consistent with the task to be performed and should remain in the contaminated area the minimum practicable time.

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Appendix: 1—Nuclear Burst Report

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Appendix 1 (Nuclear Burst Report) to Annex D (Prediction of
Fallout, Radiological Monitoring, and Survey) to SOP No 3

LINE NO	DESIRED DATA	DATE—TIME GROUP	DATA
1.	Reporting unit		-----
2.	Time of burst		-----
3.	Type of observation		-----
4.	Location of observation		-----
5.	Ground zero		-----
	Either: a. Coordinates		
	b. Azimuth		
	c. Azimuth and distance		
6.	Height of burst		-----
	Either: a. Height		
	b. Vertical angle		
7.	Cloud top		-----
	Either: a. Height		
	b. Vertical angle		
8.	Cloud diameter		-----
	Either: a. Diameter		
	b. Subtended angle		
9.	Weapon yield		-----
10.	Observed effects		-----

Instructions:

1. Transmit promptly (encode appropriate portions as required by SSI or SOP).
2. Make msg brief.
3. Transmit by line number only those lines of above msg for which data are available.
4. Transmit burst location data (lines 5 and 6) immediately after measurement. Coordinated readings on the stem should be taken at 15 seconds after detonation. Coordinated

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cloud measurements should be taken at cloud stabilization or 10 min after the burst and transmitted at that time.

5. Indicate units. Express all linear units in meters and all angles in mils. Express yield in KT.
6. If estimate is made to determine any of the data, the reliability of estimate should be stated.
7. Line 10, observed effects, indicate the effects of the burst on the personnel and equipment of the unit and on the surrounding vegetation. Be brief.

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Annex E (Army Aviation) to SOP No 3

1. APPLICATION

Applies except when modified by div order.

2. ORGANIZATION FOR COMBAT

a. General. The aviation bn is employed in two echelons normally under centralized control. Units may be attached to div units when required by situation. When attached, admin support provided by combat units will not include supply of aviation fuel, repair parts, or maintenance. This responsibility remains with aviation bn and the spt comd.

b. Tactical grouping.

(1) 1st echelon. HQ & HQ Co, aviation co (GS) (-), aircraft maintenance co, located at div instrumented base airfield.

(a) Tactical support section, aviation co (GS), provide comd and liaison aircraft to div CG, staff, and div trp as required.

(b) Aerial surveillance platoon, aviation co (GS), operational control of G2.

(2) 2d echelon. Airmobile co (lt) dispersed at forward airfield.

c. Bn HQ provide representative for AAE, TOC.

d. Attached aviation support. Aviation support attached to or in support of div under operational control div avn officer.

3. INTELLIGENCE

a. Reconnaissance and surveillance.

(1) Planned observation and photo air recon within capabilities of organic aircraft assigned by units and coordinated with AAE, TOC.

(2) Capabilities of organic Army aviation will be fully

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- exploited prior to requests for inter-Service support.
- (3) Requests for airlift in support of extended ground recon submitted to AAE.
 - (4) Observation.
 - (a) Area coverage of all organic aviation elements coordinated by AAE, TOC.
 - (b) Extent of area coverage reported to AAE.
 - b. Enemy materiel. Aircraft maintenance co, maintenance bn, and aviation bn provide technical assistance to div G2.
 - c. Requests for aviation charts and photos directed to supply and transportation bn.
 - d. Counterintelligence.
 - (1) Personnel forced down behind enemy lines and not immediately retrieved will move to pickup points designated in aviation annex to div OPORD. Pickup points will not be occupied by downed personnel except periods of 30 minutes prior to and following sunrise and sunset unless mutual identification between downed personnel and pickup has been established.
 - (2) Documents containing classified information, except daily SOI extracts, will not be carried forward of friendly dispositions.

4. OPERATIONS

- a. Security.
 - (1) Local security of base airfield responsibility of CO aviation bn. Def of div support area responsibility of CO spt comd.
 - (2) Local security of forward airfield responsibility of senior aviation officer. Area def responsibility of supported unit.
- b. Combat.
 - (1) Supporting or attached aviation elements cease on div order.

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- (2) Requests for offensive air as cover for organic aviation elements submitted through command channels to FSE.
- (3) Requests for lifting of friendly fires to permit organic aviation employment submitted to TASE.
- (4) Report location all airstrips prior to occupation.
- (5) Requests for engr support coordinated with div aviation officer.
- (6) Requests for additional aviation support.
 - (a) Immediate through supporting or attached element to AAE, TOC.
 - (b) Other through command channels.
- (7) Chemical and biological.
 - (a) Defensive. See Annex F.
 - (b) Offensive. Organic or attached aviation employment in CB distribution on div order.
- (8) Smoke. Organic or attached aviation employed to distribute smoke on div order and coordinated with FSE.
- (9) Battle area illumination. Organic or attached aviation employed as illumination means on div order and coordinated with FSE.
- (10) Air defense. Aircraft attacked by en air or ground fire take evasive action and report immediately location, type, and quantity of en action to div FSE.
- (11) Def against nuclear attack. All aviation elements constantly alert for en action indicating employment or nuclear wpns. Following employment of nuclear wpns by en, observation and surveillance effort concentrated on detection of en attempt to exploit effects.
 - (a) Aviation Co (GS) :
 - 1. Be prepared to provide emergency peakload aeromedical evacuation.
 - 2. Provide RADLSV and RADLMON of blast and fallout areas on div order.

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- (b) Airmobile co (lt) :
 1. Provide airlift to reinforce supporting elements in RADLSV.
 2. Provide airlift to reinforce supporting elements in medical air evacuation missions.
 3. Provide airlift for transportation of CAT's.

(12) Movement.

- (a) Supporting elements displace with supported unit. Prior notification of new airfield to AAE.
- (b) Div AAE displace with div TOC.
- (c) Aviation bn (-) displace when beyond supporting distance.

(13) Communications.

- (a) Wire communication to aviation bn subordinate elements from closest area sig center.
- (b) Lateral communication maintained between supporting or attached elements on forward airstrips.
- (c) Aviation bn (-) satellites on div main sig center when possible to provide following :
 1. Direct line G2-3 to aviation bn operations section.
 2. Direct line FSE or AAE to aviation bn operations section.
- (d) Recon for new div base airfield coordinated with div sig officer and G3.
- (e) Div aviation officer be prepared to establish flight control center (FCC) for helicopter operations.

5. LOGISTICS

a. Supply.

(1) CI I.

- (a) Supporting and attached elements by supported units.
- (b) Div AAE by div HQ co.

(2) CI II and IV.

- (a) Supporting or attached aviation element receive aviation items from aviation bn.
- (b) Aviation bn (-) by requisition to aircraft main-

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tenance co (repair parts), other to supply and transportation bn.

(3) Cl III.

(a) All elements maintain prescribed load.

(b) Supply of aviation fuel through supply and transportation bn.

(4) Salvage. Aviation items salvaged by aircraft maintenance co.

b. Logistical employment.

(1) Emergency aerial supply. By requisition to ADSOC.

(2) Aeromedical evacuation. By request to ADSOC.

(3) Aerial personnel transportation. By request to AAE, TOC.

6. REPORTS

a. Daily status report for all aircraft submitted with vehicle status report by—

(1) Units for organic aircraft.

(2) Aviation bn for all other aircraft.

(3) Aviation bn provide G4 with consolidated report by 2200.

b. Daily operations report to G3 by div AAE, TOC.

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Annex F (Chemical and Biological (CB) Warfare) to SOP No 3

1. GENERAL

- a. Purpose. To establish procedures for protection against CB atk for units of this comd.
- b. Unit procedure. Subordinate unit SOP's will conform.

2. REFERENCES

FM 21-41 and AR 220-58.

3. ORGANIZATION

- a. Communication from unit monitors concerning CB matters through comd channels. Designated CBR survey personnel report information to CBRE by most direct means available.
- b. CB monitor and survey teams will be formed at the bde, bn, and co level, using trained personnel and operating under the supervision of unit comdr. Personnel who are especially trained in CB warfare advise and assist their comdr.
- c. Decontamination specialists trained as required.

4. RESPONSIBILITIES

- a. Each individual will—
 - (1) Immediately mask and give the alarm in the event of CB atk.
 - (2) Report all captured CB personnel or equipment.
 - (3) Maintain personal CB protective equipment in good repair.
- b. Unit comdrs are responsible for—
 - (1) Proficiency of personnel in all phases of CB defense.
 - (2) Proper and expeditious processing of captured en CB personnel and equipment.
 - (3) Inspection and maint of CB equipment.
 - (4) Appropriate warning to be transmitted on unit voice radio comd net immediately on confirmation.

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- (5) Organizational (first and second echelon) decontamination.
- c. Div chemical officer will—
 - (1) Provide technical advice and assistance to div and unit comdrs and staff off.
 - (2) Provide training aids concerning en equipment, materiel, and CB agents.
 - (3) Supervise the supply and maintenance of CMLC items of protective equipment and supervise CB training and technical intelligence activities.
 - (4) Recommend and exercise technical supervision of survey operations.
 - (5) Maintain contamination situation map and advise comdr on actions to minimize casualties.
 - (6) Supervise third-echelon decontamination projects.
- d. Supply and transportation bn comdr responsible for issue of protective clothing and arrangements for decontamination of clothing by QM elements of higher echelon supporting the div.
- e. Div engr responsible for decontamination operations requiring earth-moving equipment, constructing of protective shelter, and furnishing potable water.
- f. Div surg responsible for analysis of biological warfare samples and advice to comdr on actions to minimize casualties.

5. TYPES OF ALERTS

- a. Possible CB atk (en capable of CB atk) : alert to be given by this HQ. See paragraph 6a.
- b. Imminent CB atk (en believed preparing for CB atk) : alert to be given by this HQ. See paragraph 6a.
- c. Actual atk (enemy CB in progress) : alert to be given by first individual detecting the atk. See paragraph 6b.

6. PROCEDURE IN CASE OF CB ATTACK

- a. Action prior to atk.
 - (1) Units alerted for possible CB atk acknowledge receipt of alert, but take no further action until notified by this HQ.

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- (2) Units alerted for imminent CB atk acknowledge receipt of alert and put individual and collective protective measure on ready basis. Personnel wear protective clothing and carry masks.
- b. Action during atk.
 - (1) Wear all necessary protective equipment.
 - (2) Execut collective protection measures.
 - (3) Inform higher, lower, and adjacent units of atk by most rapid means.
- c. Action after atk.
 - (1) Announce "all clear," as determined by unit comdr.
 - (2) Decontamination.
 - (3) Resupply of protective equipment.
 - (4) Mark and report contaminated areas to higher, lower, and adjacent units.
 - (5) Submit report of en use of CB or radiological agents (DA Form 890).

7. PROTECTION

- a. Individual. Individuals carry protective masks and associated equipment and are responsible for self aid.
- b. Collective. Construction of collective protective shelters at discretion of unit comdrs.
- c. Tactical.
 - (1) Unit comdrs prescribe equipment and procedures required for occupation of or passage through contaminated areas.
 - (2) Supply and equipment dispersed as much as the situation permits and maintained under cover.

8. DECONTAMINATION

- a. Units perform organizational decontamination.
- b. Submit requirements for field decontamination and/or large area decontamination of div chemical officers.

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9. SUPPLY

Emerg requisitions for CB and radiological equipment submitted by most expeditious means.

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Annex G (Rear Area Security) to SOP No 3

1. PURPOSE

To establish procedures for rear area security planning and operations within div rear area.

2. GENERAL

CO, div spt comd, is responsible for rear area security of that portion of the rear area where the bulk of the administrative spt functions are performed. Units and installations located in div rear area are responsible for their own local security plans under the staff supervision of G3.

3. INTELLIGENCE

- a. Information of any enemy atk (guerrilla, nuclear, ground atk, air atk, or any other) will be reported to G3 immediately.
- b. Counterintelligence. Information pertaining to transportation and storage of nuclear components will be disseminated on a need-to-know basis.

4. OPERATIONS

a. Orders.

- (1) CO, div spt comd, is responsible for security of div spt area. He assigns responsibility and tasks to elements under his comd to insure all-round security. CO, div spt comd, will provide, from sources available within div spt area, small provisional security detachments.
- (2) Combat units located in div rear area whose primary mission is rear area security will be designated in current OPORD. These units may be placed under the operational control of CO, div spt comd, for specific tasks, periods of time, or specific operations.
- (3) Units and installations in div rear area are responsible for their own local security.

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- b. Security. General location for div spt area is designated by CO spt comd after coordination with G3 and G4. Specific areas for elements of div spt comd are designated by CO spt comd. Primary consideration will be given to unit's ability to accomplish its mission. Other considerations include dispersion between units and installations, and def of area.
 - c. Reports. Any incident associated with rear area security including nuclear, chemical, and ground or airborne atk will be reported immediately through comd channels to div G3. Reports will include geographical coordinates, type of incident, extent of damage, and/or casualties and spt required.
5. ADMINISTRATION
- a. Supply.
 - (1) Level of emergency supply indicated in current ADMINO.
 - (2) Requisitions for supply directly related to rear area security mission will be submitted through normal supply channels citing special authority.
 - (3) Supplies required by units and detachments operating an incident area will be obtained from nearest available source.
 - b. Evacuation and hospitalization. When medical requirements are beyond capability of units involved in rear security, spt comd will provide additional means in coordination with div surgeon.
 - c. Transportation.
 - (1) Spt comd will provide necessary additional transportation required to spt rear area security operations in coordination with comdr concerned.
 - (2) CO div spt comd will coordinate with G4 regarding changes in div movements and traffic control plans required as a result of an incident.
 - (3) CO, spt comd, will coordinate establishment of traffic control posts in the rear area.
 - d. Civil affairs. Maximum use will be made of civilian personnel including police and medical personnel, housing, transportation, and other facilities in affected areas.

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- e. Reestablishment of administrative support. Reestablishment of admin spt after an incident is responsibility of spt comd after coordination with commander concerned.
6. COMMAND AND SIGNAL
- a. Units within div rear area may be assigned area damage control missions.
 - b. Div spt comd will coordinate local security and area damage control plans. Airborne and other atks will be reported immediately through comd channels to div ADSOC. Comd of nondivisional units will be assumed by CO, spt comd, only upon authority of div HQ.
 - c. Area communication system augmented by unit radio nets will be used for rear area security.

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Annex H (Signal) to SOP No 3

1. COMMUNICATION CENTERS

- a. Communication centers will be operated continuously at administrative and tactical echelons.
- b. During operations, precedence of all msgs will conform to the provisions of AR 105-31, ACP 121, and FM 24-17. All msgs will be written on msg form DD 173, DD 173-1, and DA Form 11-170 (M210 Message Book). "FLASH" precedence will be used only in actual combat. It will not be used in exercises, problems, maneuvers, or CPX's.
- c. Report excessive delays to msg originators and to the signal (communications) officer of the HQ concerned.
- d. Units will be prepared to operate airdrop and pickup service at tactical echelons.

2. MESSENGER SERVICE

- a. A scheduled messenger service will be operated to all assigned and attached major units of the div including div spt comd and div rear echelon. Frequency of delivery and pickup will be determined by the div sig officer.
- b. Special messengers will be available at msg center for high precedence communications.

3. RADIO COMMUNICATIONS

- a. Radio nets.
 - (1) Radio nets will conform to those prescribed in the current div SSI and SOI, as implemented or modified by the sig annex of the div OPORD (OPLAN) in effect.
 - (2) Radio teletypewriter operators of the army logistic nets, corps or army command; intelligence and div logistic nets will keep msg center informed of the status of their nets.
- b. Restrictions.
 - (1) Listening silence will be broken only on orders of

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the HQ imposing the silence or under special conditions stated in OPORD. Proper identification of the unit requesting break of radio silence is necessary before passing any traffic.

- (2) All restrictions imposed on radio stations lifted when unit makes contact with the enemy unless otherwise specified in OPORD.
 - (3) Minimum readability and calibration checks made upon initial opening of each radio net. Thereafter they will be exchanged once every 4 hours. If traffic has been passed in the previous period, readability will NOT be exchanged. When the net control station institutes readability checks for an entire net, each subordinate station will permit 30 seconds of open-air time from conclusion of preceding station transmission before initiating its report.
- c. Interference. Report interference between tactical stations to the next command. Include call letters, frequency, and time of interference and sig strength of interfering station.
- d. Security.
- (1) Authenticate when opening or closing a net, imposing or lifting radio listening silence, during frequency changes, and at any other occasion that the operator deems it necessary for max radio security.
 - (2) Radio stations will NOT attempt to enter, jam, or otherwise interfere with unknown radio nets, even if such nets should be identified as enemy, except on orders from div sig officer.
 - (3) Report jamming or attempts to enter div radio nets by unknown stations to div sig officer without delay, giving time, frequency, type of jamming (interference), sig strength, readability, and identification (if obtainable) of interfering station.
- e. When unable to establish radio contact, div units request radio relay by any aircraft.

4. RADIO RELAY COMMUNICATIONS

- a. Multichannel radiotelephone facilities established between

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div main, sig centers at bde HQ, spt comd HQ, and such other location as the div sig officer directs.

- b. Radio relay terminals at bde or other HQ remain under the operational control of the div sig officer. Construction of keying lines between the radio relay terminal and unit switchboards is the responsibility of the personnel operating the radio relay equipment.

5. WIRE COMMUNICATION

- a. Installation. When practicable, each HQ below div construct minimum of one field wire circuit to subordinate units. Div sig bn provides minimum of two circuits to bde by means of radio relay and wire.
- b. Commercial facilities. Commercial facilities will not be used without prior approval of the div sig officer. All communication facilities extending into enemy territory will be disrupted. Portions in our territory will be preserved pending instructions from the div sig officer unless operational necessity requires their destruction.
- c. Wire recovery. Recover wire as the tactical situation permits.
- d. Reports.
 - (1) One copy of circuit diagram, traffic diagram, and line route map will be forwarded to the div sig officer by bde, div arty, each bn and sqdn.
 - (2) One copy each of the div line route map, circuit diagram, and traffic diagram will be forwarded to bdes and div arty HQ to assist in reestablishing the communication system when a major disruption occurs.
- e. Repair. Should wire circuits be damaged, by foot or vehicle, they shall be repaired as effectively as possible and the exact location of the damaged circuits shall be reported to the div sig officer.
- f. Telegraph and teletypewriter. Div establishes teletype facilities at each echelon of div HQ, div spt comd HQ, and each area signal center.

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6. VISUAL AND SOUND COMMUNICATION

- a. Units reproduce and distribute as items of unit SSI and SOI, visual and sound items of the div SSI and SOI.
- b. Suitable alerting devices mounted near unit msg center.
- c. General alarms sounded over the sig communication system of each unit.
- d. Units display panels as necessary.

7. AIR COURIER SERVICE

Aviation bn prepared to fly air couriers.

8. SIGNAL SECURITY

- a. Authentication codes, map coordinate codes, operation codes, and other brevity codes of div and higher HQ will NOT be carried forward of bde, div arty, bn, and sqdn CP's without prior approval of the div sig officer.
- b. Extracts of crypto SOI items will NOT be made, copied, or reproduced by units subordinate to this HQ.

9. PHOTOGRAPHIC

Div photo section furnish ground still and motion picture coverage as directed by div sig officer. Request for aerial photo coverage to G2 air; all other photo requests to div sig officer.

10. MISCELLANEOUS

Location of area sig centers will be determined by the div sig officer based upon the number and location of units requiring this service.

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Annex I (Administrative Support Operations Center) to SOP No 3

1. GENERAL

- a. The spt comd commander is responsible for logistical operations, 52d Mech Div. He may organize and establish a logistical coordinating agency, the administrative support operations center (ADSOC).
- b. The ADSOC when established regulates and expedites the current logistical support activities of the div, regulates and controls administrative movement in the division area, formulates administrative orders and instructions, and plans and executes rear area security and area damage control measures within the div area.

2. LOCATION, ESTABLISHMENT, AND DISPLACEMENT

a. Location.

- (1) The ADSOC will be located within the div spt area.
- (2) See Annex C to SOP No 4, 52d Mech Div Spt Comd, dated 15 Sep 19-----.

b. Establishment.

- (1) An alternate ADSOC will not be established.
- (2) In the event of destruction or temporary neutralization of the ADSOC and in the absence of specific instructions, the facility will be reestablished by the following in accordance with the sequence in which they are listed:
 - (a) By performing ADSOC functions temporarily in the spt comd CP and HQ of units organic to the spt comd.
 - (b) Using personnel at the div main (ADSOC representative in TOC, G1, G4, and special staff officers).

c. Displacement.

- (1) The ADSOC will not be fragmented.
- (2) Displacement will be accomplished by using the off

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duty shift at the new location or by moving by elements or increments.

3. PERSONNEL

a. Composition of the ADSOC and source of operating personnel are as follows:

<u>NO</u>	<u>GRADE</u>	<u>MOS</u>	<u>DUTY</u>	<u>SOURCE</u>
(1) <u>ADSOC control section.</u>				
1	Maj	4010	OIC/ADSOC	(To be determined by the division)
1	Capt	4010	Asst OIC/ ADSOC	
1	E-8	13180	Op sgt	
1	E-7	76870	Asst op sgt	
2	E-4	71110	Clerk-typist	

(2) Admin processing group.

1	E-7	13170	Admin con chief
1	E-5	71600	Comm & distr clerk
2	E-5	71110	Clerk-typist, draftsman

(3) Supply element.

1	Maj	4419	Chief, sup elm
1	Capt/lt	4010	Sup op off
1	Lt	4514	Ord cl V sup off
1	E-9	76490	Chief clerk
1	E-8	76880	Asst chief clerk
2	E-4	71110	Clerk-typist

(4) Maintenance element.

1	Capt	4800	Chief, maint elm
1	Capt/lt	4800	Maint op off
1	E-7	76870	Chief clerk
1	E-4	71110	Clerk-typist

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<u>NO</u>	<u>GRADE</u>	<u>MOS</u>	<u>DUTY</u>	<u>SOURCE</u>
<u>(5) Area damage control-security element.</u>				
1	Maj	2162	ADCSE op off	(To be determined by the division)
1	Capt	9301	Asst ADCSE op off	
1	Capt	57314	CBR op off	
1	E-8	13380	Op sgt	
1	E-8	76480	Asst op sgt	
1	E-4	71110	Clerk-typist	

(6) Movements element.

1	Capt	0692	Trans op off
1	Capt	0609	Asst trans op off
1	Capt/lt	3506	Med evac op off
1	Capt/lt	2518/2162	Army avn op
1	Capt/lt	9110	PM rep
1	E-7	71970	Mov sp
1	E-5	71910	Asst mov sp
1	E-4	71910	Clerk-typist

b. In addition to personnel listed above, liaison off will be provided to ADSOC from div TOC, and corps and army admin spt units directly supporting div operations.

4. PLANNING

- a. Planning for immediate admin spt requirements will be accomplished in the ADSOC and will normally include—
- (1) Admin movements generated by enemy action or immediate operational situation changes.
 - (2) Emergency supply.
 - (3) Revision of supply schedules because of loss of distribution points.
 - (4) Revision of rear area security plans caused by immediate enemy action.
 - (5) Revision of area damage control plans because of immediate enemy action.

(Classification)

(Classification)

- b. Data for formulation of ADMINO and annexes for future operations will be made available to G4 section as they become available.

GREEN
Col

Distr: A

OFFICIAL:

/s/Grey
GREY
S4

(Classification)

(Classification)

52d Mech Div
FORT LEAVENWORTH, KANSAS
1 Sep 19----

Annex J (Division Tactical Operations Center) to SOP No 3

1. GENERAL

- a. The DTOC is a grouping of representatives of general and special staff sections concerned with current combat and combat support operations. These representatives assist the comdr in the tactical operations aspects of his exercise of comd by providing current information on combat operations and the combat support available, making recommendations for comd decisions, taking action within established policies and issuing implementing instructions.
- b. Once an operation is in progress, current combat and combat support operations are supervised and coordinated through the DTOC so that accurate, detailed, and up-to-date situation (friendly and enemy) is maintained and immediately available. Upon receipt of a requirement, the DTOC elements concerned analyze it concurrently, isolate problem areas, and coordinate directly.
- c. G3 exercises general staff supervision over the DTOC.

2. LOCATION, ESTABLISHMENT, AND DISPLACEMENT

a. Location.

- (1) The DTOC constitutes the principal component of the division main.
- (2) Personnel to man the DTOC and alternate DTOC are detailed from the general and special staff sections as required.

b. Establishment.

- (1) The DTOC will be established as part of division main and the alternate DTOC as part of the alternate headquarters.
- (2) The alternate DTOC will be prepared to take over immediately in the event that the DTOC at the division main becomes ineffective.
- (3) The chiefs of the general and special staff sections will insure that their elements in the alternate DTOC have available continuously the necessary current information to take over from the DTOC.

(Classification)

(Classification)

c. Displacement.

(1) The DTOC and alternate DTOC will not displace at the same time.

(2) When the division main displaces, the alternate DTOC will take over as the DTOC (either in place, or displaced to a new location).

3. PERSONNEL

a. The composition of DTOC will be as follows:

(1) G2-G3 operations, composed of a G2 element and a G3 element.

(2) Army aviation element.

(3) Air defense element.

(4) Fire support element.

(5) Tactical air support element, composed of a G2 air group and a G3 air group.

(6) Communications—electronics element.

(7) Chemical, biological, radiological element.

(8) Engineer element.

(9) G1 and G4 representation and G5 representation when required.

b. In addition to elements listed above, liaison officers will be provided to DTOC by ADSOC.

4. PLANNING

a. Planning for future operations and preparation of operations plans and annexes will be accomplished by staff sections outside the DTOC.

b. Coordination of plans with DTOC elements will normally be made to insure the plan can be implemented readily from the situation existing or expected to exist at the time the plan becomes effective.

c. Current planning will be accomplished in the DTOC.

d. When the division is operating independently or is the army component of a joint task force, the DTOC assumes responsibility for interservice coordination.

BLACK
Maj Gen

Distr: A
OFFICIAL:
/s/Blue
BLUE
G3

(Classification)

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BY ORDER OF THE SECRETARY OF THE ARMY:

G. H. DECKER,
General, United States Army,
Chief of Staff.

Official:

J. C. LAMBERT,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

SA (1)	EUSA (10)
CofS (1)	Corps (15)
DCSPER (5)	Div (20)
DCSLOG (10)	Div Bde (5)
DCSOPS (20)	Div Bn & Sqd (5)
ACSI (5)	Div Co & Trp (2)
ACSRC (5)	Div FA Btry (2)
CARROTC (3)	Div Spt Comd (5)
USASA (2)	Div Arty (5)
COA (2)	LOGCOMD (2)
DASA (2)	MAAG (5)
Tech Stf, DA (2)	Mil Msn (5)
CofF (2)	ADA Btry (1)
CINFO (2)	Arty Btry (1)
CNGB (2)	USAWC (5)
CLL (2)	USACGSC (6,500)
CRD (2)	Br Svc Sch (10) except
CMH (2)	TAGSUSA (300), US
CA (2)	ARADSCH (50),
TIG (2)	USAARMS (900),
TJAG (2)	USAAMS (900),
TPMG (2)	USACMLCSCH (100),
TAG (2)	USAES (60), USAIS
CofCh (2)	(1,065), MFSS (130),
USAABELCTBD (2)	USA Ord Sch (1,025),
USAATBD (2)	PMGS (130), USASCS
ARADCOM (2)	(265), USATSCH (265),
ARADCOM Rgn (2)	USA Scty Sch (50),
OS Maj Comd (10)	USACAS (500).
MDW (3)	USAAVNS (11)
PMS Sr Div Units (1)	USAINTS (220)
PMS Mil Sch Div Units (1)	USASWS (25)
USMA (5)	Joint Sch (5)
Seventh USA (10)	CDEC (5)

NG: State AG (3); Div (4); Div Arty (2); Div BG, Div CC, Div Bn,
 Div Sqd, Div Co, Div Btry, Div Trp (1)

USAR: Units same as Active Army.

For explanation of abbreviations used, see 320-50.