FM 100-5

DEPARTMENT OF THE ARMY FIELD MANUAL

FIELD SERVICE REGULATIONS

OPERATIONS

DEPARTMENT OF THE ARMY • SEPTEMBER 1954

FIELD MANUAL

FIELD SERVICE REGULATIONS, OPERATIONS

FM 100–5
CHANGES No. 3

HEADQUARTERS,
DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *24 January 1958*

FM 100–5, 27 September 1954, is changed as follows:

280. Combat Outposts

* * * * * * *

d. (Added) In the mobile defense the observation posts established by strong points in the forward defensive areas *may* perform the missions of a combat outpost.

282. Basic Types of Defense

There are two * * * forward defensive area. The forward defensive area may consist of **strong points and observation posts or any combination thereof.** These **strong points** may or may not be mutually supporting. The striking force serves as a counterattacking force to destroy the enemy at the most favorable tactical location.

284. Defense of Isolated Strong Points

a. (Superseded) Either the mobile or position defense may involve the defense of deliberately or involuntarily isolated strong points.

285. Position Defense

a. The ideal form * * * each defensive area. **A considerable proportion of available firepower is deployed forward. A reserve is held out initially to provide a counterattack force,** to occupy blocking positions in depth or on the flank, or to replace the garrisons of defended areas.

287. Mobile Defense

* * * * * * *

b. (Superseded) *Forward Defensive Area.* The forward defensive area is that portion of the defensive sector which is organized to provide an area of resistance. Its forward edge is located to take advantage of obstacles, observation, and fields of fire. Its depth is based on a consideration of the area required by units occupying positions in the forward defensive area to accomplish their missions, the nature of the terrain, the capabilities of supporting fires, and on a consideration of the capability of these units to prevent infiltration and maintain surveillance over the assigned area. The forward defensive area may consist of strong points augmented by observation posts. The mission of forces in the forward defensive area is to warn of impending attack; to repel, delay, deceive, disorganize, and inflict maximum destruction upon the enemy; and to canalize him into areas suitable for attack.

[redacted]

TAGO 3967B—Jan. 440483°—58

(1) *Strong points.* A strong point is an area organized for all-round defense by forces of varied size. They may or may not be mutually supporting and are located to cover avenues of enemy approach entering the sector. Forces occupying the strong points do not necessarily hold initial positions but may fight offensive or delaying actions. A commander reinforces the strong points if the situation warrants.

(2) *Observation posts.* Observation posts of varying size are located as required around the strong points. These observation posts will normally be sent out from the strong points and may perform the functions of the combat outpost.

o. The Striking Force. The balance of * * * within this area. The remainder of the forces not absolutely necessary to man the forward defensive area is organized into a mobile striking force whose mission is to destroy the enemy force at a time and place of a defender's choosing. The striking force may be assembled in one or several areas within the striking force area depending on width of sector, terrain, enemy capabilities (to include air and **nuclear weapons**), and planned manner of employment. It should be strong in armor.

d. Rescinded.

[AG 353 (8 Jan 58)]

By Order of *Wilber M. Brucker*, Secretary of the Army:

MAXWELL D. TAYLOR,
General, United States Army,
Chief of Staff.

Official:
HERBERT M. JONES,
Major General, United States Army,
The Adjutant General.

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OS Base Comd	PMST Sr Div Units	Arsenals
Log Comd	PMST Jr Div Units	Mil Dist
MDW	PMST Mil Sch Div	MAAG
Armies	Units	Mil Mis
Corps	Gen Depots	ARMA

NG: State AG; units—same as Active Army.
USAR: Same as Active Army.
For explanation of abbreviations used, see AR 320–50.

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FIELD MANUAL

FIELD SERVICE REGULATIONS, OPERATIONS

FM 100–5
CHANGES NO. 2

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *27 July 1956*

FM 100–5, 27 September 1954, is changed as follows:

2. Army Forces

Army Forces, as * * * and its allies. Army forces have the unique capability to accomplish any or all of the following tasks under all conditions of terrain and weather:

* * * * * * *

7. Command

Once military operations * * * may be employed. In the **majority of the** latter instances, all other components will be operating in support of the Army component. Overall command normally * * * substituted for command.

17. Army Establishment

The Army Establishment * * * the national security. The organization also includes the **Headquarters Continental Army Command,** which is the field operating agency of the Department of the Army charged with the general direction, supervision, coordination, and inspection of matters pertaining to the development of tactics, techniques, and materiel for use by the Army in the field; and with the training and training inspection of individuals and units of the Army in the field.

28. Branches

* * * * * * *

c. The special branches of the Army are the several corps of the **Army** Medical Service, the Judge Advocate Generals Corps, the Chaplains, **and the Women's Army Corps.**

d. (Superseded) Women's Army Corps members may be detailed to certain other branches indicated in *b* and *c* above.

39. Capabilities

Armor is capable * * * enemy ground reconnaissance. **Armor is particularly suited to participation in exploitation and pursuit.**

40. Limitations

(Superseded)

Armor is sensitive to terrain, obstacles, adverse weather, and conditions of limited visibility. Armor action requires large quantities of

supplies, special supply trains to keep the combat vehicles supplied with fuel and ammunition, and frequent and adequate periods for vehicle maintenance.

41. Tactical Employment

a. Armor is most * * * by other means. **It is particularly suited to exploit rapidly the effects of atomic weapons, for example, the immediate penetration through enemy defenses disrupted by atomic attack.** Defensively, armor is * * * has lost momentum.

b. Armor reconnaissance units * * * wide fronts lightly.

* * * * * * *

54. Support of Combat Operations

The functions performed * * * combat operations are—

a. Engineer support of river crossing, amphibious, **barrier and denial, combat** deception operations, and camouflage activities.

* * * * * * *

110. Fundamentals of Combat Deception

The guiding principles * * * must be considered:

* * * * * * *

a. A combat deception plan must be reasonably certain of causing the enemy to discard **or delay the implementation of** certain **courses of action** which are unfavorable to the success of our **main tactical** plan.

* * * * * * *

Section X. ATOMIC AND CHEMICAL WEAPONS

(Superseded)

114. General

Atomic and chemical weapons may be used against concentrations of personnel and/or materiel to accomplish large scale devastation or neutralization. The commander must consider his own and the enemy's capabilities of using these weapons. His estimates, plans, directives, orders, and standing operating procedures will reflect these considerations. The commander must weigh all possible implications as they may affect his own and enemy operations.

115. Atomic Weapons

Atomic weapons provide a commander with the most powerful destructive force yet known to influence operations. The proper integration of atomic firepower and the maneuver of the force is of utmost importance. The commander may consider atomic fires as additional firepower of large magnitude to complement other available fire support for maneuvering forces, or he may fit his maneuver plan

to the use of atomic fires. In any case, the commander considers his plan of maneuver and the employment of atomic weapons concurrently. When the commander uses atomic weapons he should be prepared to rapidly exploit the advantages gained; he should also be prepared for rapid exploitation by the enemy following enemy use of the weapon. He may plan demolitions in a barrier or denial operation utilizing atomic weapons. For additional details on the tactical use and implications of atomic weapons, see FM 100–31 and subsequent chapters in this manual.

116. Chemical Warfare

Toxic chemical agents may be dispersed by means readily available to division and higher commanders, such as artillery, rockets, mortars, and land mines. They are particularly suitable for use in offensive operations against personnel in strong, well dug-in field fortifications who cannot be reached effectively with HE or atomic munitions. They can be effectively employed against any troop concentration and may be used to search large areas wherein the exact location of targets may not be known. In connection with defensive operations, they provide the commander with a means for reinforcement of barriers, obstacles, and HE minefields, for the protection of flanks and the restriction of areas by means of persistent contamination. They provide a potent means of attacking personnel without destruction of facilities or materiel. Nontoxic chemical agents, such as flame and smoke, can be effectively employed in the reduction of enemy fortifications and in the concealment of troop movements and other activities from enemy observation.

119. Results

The attainment of the above objectives will result in **a relatively** increased effectiveness of the commander's force. In the present * * * at all stages.

121. Barriers

* * * * * * *

d. Planning considerations.

* * * * * * *

(2) *Location of barriers.* Barriers should be * * * reinforce natural obstacles. **Consideration may be given to demolitions by atomic weapons.** Limited physical capabilities may preclude coverage of an entire barrier by fire; in this case, provision for constant **or periodic** observation, **according to the sensitivity of the barrier to enemy action,** and adequate communications will permit rapid shifting of mo-

bile forces or fire support to cover threatened areas. Care must be * * * effective locations are—

* * * * * * *

122. Denial Operations

a. General. A theater commander * * * area or facility. Execution of denial operations provides an opportunity for imaginative use of all forms of **contaminants** and **demolitions to include atomic demolitions.** The far-reaching effects * * * and national objectives.

* * * * * * *

127. General

Combat intelligence provides * * * of the situation. By providing logical conclusion concerning terrain, weather, enemy capabilities and **vulnerabilities,** and other factors, it permits the determination of their probable effect on the mission and courses of action contemplated and assists in applying adequate counterintelligence and security measures.

a. Combat intelligence should be timely, **accurate,** and complete. Timeliness requires rapid * * * of its capabilities.

* * * * * * *

c. The basic methods * * * types of operations. However, the use of atomic weapons and certain special operations, such as amphibious or airborne, require particular emphasis on certain aspects of intelligence production, notably collection, **rapid processing, and prompt dissemination.**

* * * * * * *

128. Sources and Agencies

A source is * * * and reports information.

a. In combat, the * * * toward these sources. However, besides these direct sources, there are certain derived sources of information such as order of battle books **and handbooks,** strategic **intelligence** studies, and terrain studies.

b. Collecting agencies exploit sources by research, observation, or interrogation. **Collecting agencies include: Troops; intelligence specialists; and special information services which are operated by the branches, usually in the interest of the branch concerned.** However, all agencies * * * is most important.

129. Direction of the Collection Effort

Direction of the * * * and avoid surprise.

* * * * * * *

b. (Superseded) The importance of potential atomic targets requires that the commander controlling the atomic weapon coordinate in detail the collection effort to insure integration of effort and expeditious collection, processing, and use of the intelligence.

132. Use of Intelligence

The primary use * * * and adjacent headquarters.

b. **Current** intelligence is used by commanders and intelligence personnel to evaluate and interpret new information, **and to develop atomic targets.**

c. The value of * * * with the enemy. **Emphasis should be placed on the expeditious dissemination of intelligence or information pertaining to potential atomic targets.**

133. Training

Reports from the frontline soldier are **among the most important in the field** of combat intelligence. These reports are * * * other intelligence specialists.

134. General

a. Counterintelligence is that aspect of military intelligence **designed to counter enemy or potential enemy intelligence, to deceive the enemy, or to prevent** sabotage **or** subversive activities. **It includes civil and military measures; the collection, processing, and distribution of information, and the execution of specific actions for these purposes.** It is an * * * Combat Zone operations.

* * * * * * *

141. Reconnaissance Operations

* * * * * * *

b. Ground reconnaissance is * * * reconnaissance action required.

* * * * * * *

(2) Although ground reconnaissance is performed by stealth, **when the situation permits,** there are situations in which it may be necessary to perform reconnaissance by fire or reconnaissance in force to obtain the desired information. Reconnaissance by fire * * * a general engagement.

* * * * * * *

154. Measures Against Atomic, Biological, Chemical, and Radiological Action

a. The best defense against atomic, biological, chemical, **and** radiological **weapons** is the detection and destruction of the source and delivery system of these weapons. Other measures include * * * in paragraph 153.

* * * * * * *

169. Plans and Orders

a. When directing the movement of a unit by rail, the order will designate the points at which entrainment **and detrainment** will take place and will indicate the desired closing time at the unit's destination.

* * * * * * *

171. General

a. **Sea** transport is the primary means by which oversea operations are established and maintained. It is characterized * * * comparatively slow speed.

b. (Superseded) Seaborne movements are especially vulnerable to attack by atomic weapons and 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. Important convoys will normally be provided air cover by land or carrier based aircraft or both. Convoys of lesser importance will be provided air cover consistent with existing priorities and capabilities.

173. Amphibious Operations

* * * * * * *

b. (Superseded) Troops with equipment and supplies for the assault are "combat loaded" and are distributed throughout the transports of the convoy in accordance with contemplated operations upon landing. It is essential that organizational integrity of assault troop units be maintained. The combat equipment and initial supplies of each unit are normally loaded in the same ship with the unit or loaded in other ships in a manner that will insure rapid debarkation in the desired priority. This permits each unit to effectively perform its assigned mission on landing.

b.1. (Added) Enemy atomic capability will require increased dispersion of ship concentrations in the objective area, speed in movement ashore and inland, and establishment of a sufficiently large beachhead to enable adequate dispersion of units, installations, and materiel. In addition, such a capability may require use of rotary wing or other vertical take-off aircraft for rapid transport of troops and supplies to inland objectives or other locations within the beachhead.

* * * * * * *

174. General

Air movement is a means of transportation **employed to obtain speed and flexibility in the movement of** troops **and** supplies **in the conduct and support of combat operations. The employment of aircraft in support of combat operations permits the movement of troops and supplies to areas** inaccessible to other means of transport **and reduces the dependence placed upon all surface means of transportation.** Movements by air * * * of available aircraft.

175. Types of Transportation

Currently the two * * * fixed-wing type aircraft. **Fixed-wing transportation may be provided by the Air Force or by Army**

[redacted]Y

Transport Aviation units assigned to the field army. Rotary-winged aircraft will be provided by the assigned Army Transport Aviation units.

176. Employment of Air Transportation

(Superseded)

a. Army transport aviation units, both fixed- and rotary-wing, provide the ground commander with a means for increased mobility and flexibility to facilitate operations in the combat zone. In its role of combat support, Army transport aviation has the specific mission of, but is not limited to, the movement of Army combat units operationally by air in the conduct of airborne or air-landed operations. In its role of service support, it may be utilized for air delivery of supplies, replacement personnel, and units in support of tactical operations. It may also be utilized for the aero-medical evacuation of casualties.

b. Air transported operations may be designed to insure rapid exploitation of the effects of nuclear weapons, traverse natural or artificial barriers, permit vertical envelopment of fixed defenses, or to strike the enemy in the flank or rear and in operations against partisan or guerilla forces. In exploitation or pursuit, Army transport aviation units can augment the mobility of the armored or motorized forces. They lend increased mobility to reserves. This mobility may justify a single reserve in terrain that otherwise would dictate two or more reserve forces. The use of Army transport aviation permits rapid concentration of forces at a chosen point or points and/or equally rapid dispersion subsequent to an operation. Cut-off or isolated units may be reinforced, supplied, or evacuated through its use. Detailed coordination for use of Army transport aircraft is required at all echelons in order to minimize restrictions on friendly high-trajectory fire and on tactical air force operations. Control of the Army air transportation means should be vested in the commander responsible for the preparation and execution of the operation. Due to the coordination required, and to the substantial communications and logistical support necessary to successful execution of such operations, command and control of Army transport aviation is normally not delegated below division level. However, when favorable circumstances exist it may be desirable to pass operational control as far down as battalion level or below. The Army transport aviation unit commander will advise the headquarters utilizing his unit on pertinent technical matters and will assist in the formulation of plans and orders to accomplish the tactical mission. Among the factors that might favor such a delegation of operational control may be—

(1) The planned operation will not transcend the boundaries of the area of responsibility of the unit conducting the operation.

(2) The unit conducting the operation has been assigned the responsibility for selecting the objectives of the air-landed force.
(3) The unit conducting the operation has adequate communication means for control of participating forces, including Army transport aviation units.

c. In addition to air transportation provided by Army transport aviation, fixed-wing transportation by air may be available from Air Force units. The employment of Air Force transportation requires coordination at a theater or joint level. See FM 100–15 and 110–5.

178. References

For further details concerning movements by air, see FM 20–100, 55-series, 57–20, 57–30, **57–35,** 101–10, and 110–5, TM 57–210, and appropriate Air Force publications.

201. Scope

This chapter deals with the fundamentals of all offensive action (sec. I); offensive action against an organized position (secs. II through VIII); offensive action in a war of movement (sec. IX); and **exploitation** (sec. X). Section IX, in * * * an organized position.

202. Fundamentals of Offensive Action

* * * * * * *

b.1. (Added) The mission is a task together with its purpose. A statement of the mission clearly indicates the action to be taken and the reason therefor. The commander assigns missions to attacking units which focus attention on the decisive objective(s). The decisive objective is defined as that objective(s) selected by the commander, the control of which will best facilitate the accomplishment of his mission. By assigning physical objectives, by designating the direction and time of attack, and by allocating means, the commander controls the operation and insures that the attacks of subordinate units are coordinated and contribute to the accomplishment of the mission of the command as a whole.

* * * * * * *

g. (Superseded) The main attack seeks to secure the decisive objective and normally contains the greatest practicable concentration of combat power.

* * * * * * *

j. (Rescinded).

k. In an envelopment, the main **attack** is directed toward the seizure of an objective in the enemy rear which will cut his routes of escape and subject him to destruction in his position. This is accomplished by striking an assailable enemy flank and by avoiding his main strength en route to the objective. The secondary **attack** pins down

the enemy to prevent his escape and reduce his capability of reacting against the main **attack.**

* * * * * * *

m. (Superseded) The frontal attack which strikes the enemy along his front is employed to overrun or destroy a weaker enemy force or as a secondary effort in conjunction with other forms of maneuver. Since it is seldom possible to exert sufficient pressure over a great area to overwhelm the enemy, frontal attacks are usually confined to secondary attacks with the primary object of maintaining pressure and thus preventing enemy disengagement.

n. In the penetration * * * his divided forces. The penetration is adopted when the situation does not **permit or** favor an envelopment, or when the situation favors employment of **combined arms or** mass destruction weapons to rupture the enemy's battle position and afford opportunity for rapid exploitation.

* * * * * * *

204. Objective

* * * * * * *

c. (Superseded) The commander selects as the decisive objective(s) the objective(s) whose control will best facilitate the accomplishment of his mission. Other terrain features whose seizure and control will materially assist in the attainment of final objectives are designated as intermediate objectives. Control of a terrain feature may be desired to facilitate future operations, to facilitate destruction of the enemy by forcing him to evacuate his position or risk destruction thereon, to dominate an area or an avenue of approach, or to enhance the security of a command. Terrain features selected as objectives should provide for a convergence of effort and should be easily identifiable on the ground. Their capture must be possible within the time and space limits imposed.

205. Frontages and Depth

a. Frontage is the * * * correspondingly lesser depth. Secondary attacks **should as nearly as possible** present to the enemy the same potentiality as the main attack.

* * * * * * *

215. Objective

(Superseded)

The objective has been discussed initially in section I. Objectives are assigned for purposes of coordination and control. Assignment of an objective implies that a degree of control over the objective is desired and must be maintained. The degree of continuing control required will be that stated or implied by the commander's statement of his mission and/or concept of the operation. It may vary from a

limited degree of control which merely denies the objective to the enemy to actual physical occupation of the objective itself. Control measures other than assigning of objectives may be utilized to coordinate the phasing of the mission to be accomplished.

237. Frontal Attack

(Superseded)

See paragraph 202*m*. It may be necessary or desirable to attack the enemy by employing the frontal attack. Whereas the penetration is designed as a sharp attack to rupture the enemy's principal defensive position, the frontal attack seeks to maintain pressure along the entire front. The distribution of forces should be such as to best maintain pressure along the entire front. A frontal attack does not have a main and a secondary attack. It is focused on the enemy forces by the assignment of suitable objectives. Normally these will be limited objectives. Frontal attacks, unless in overwhelming strength, seldom are decisive. The frontal attack should be adopted as a form of maneuver only after other more decisive and less costly forms have been considered. Consideration should also be given to other means such as ruses and demonstrations which can be used in lieu of the frontal attack.

251. Use of Chemical, Biological, and Radiological Agents

* * * * * * *

b. (Superseded) In the conduct of coordinated attacks, particularly those against strong, well-organized resistance, toxic chemical agents in both persistent and nonpersistent form may be used to increase the effectiveness of the attacking fire power by circumventing the conventional-type protection; such support of an attack is generally characterized by the extensive use of chemical agents in nonpersistent form, thus placing minimal restrictions due to residual contamination on the attacking force. As is the case in the use of all airborne agents, due consideration must be given to atmospheric conditions, particularly wind direction and speed, in planning the use of toxic chemicals. Chemical agents, including incendiaries, are concentrated on targets which are less vulnerable to other types of fire. While agents having a nonpersistent effect should be used only on occupied targets, agents in persistent form may be used to protect the flanks, in the establishment or reinforcement of barriers, and to neutralize areas which the attacker does not intend to enter unless adequately provided with individual protective equipment. Employment of chemical agents having a nonpersistent effect is most effective when tactical surprise is achieved and casualty-producing concentrations are established rapidly. Chemical agents in both persistent and nonpersistent form may be used for counterbattery. Highly toxic chemical agents may be used during preparatory fires, even in small amounts, to harass the

enemy and force him to mask. The employment of smoke and toxic chemical agents must be closely coordinated with other supporting fires, barrier and denial plans, and with the action of armor and supporting air units.

* * * * * * *

260. Main Body

a. The main body preceded by its advance guard follows behind the covering force. The covering force * * * the final objective.

* * * * * *

Section X. EXPLOITATION

(Superseded)

263. General

Exploitation is the taking of full advantage of success in battle and the following up of initial gains. While initial gains at local level may appear insignificant, the cumulative effect on the enemy of their aggressive exploitation may be decisive. It is characterized by rapid advances against lessening resistance, deep objectives, bypassing of strong points whose reduction is not essential to the mission, and engagements with enemy forces moving to halt the exploitation. It is a phase of offensive action that destroys the enemy's ability to reconstitute an organized defense or to engage in an orderly retrograde movement in the face of threatened disaster. Exploitation follows a successful penetration, envelopment, or link-up with airborne forces dropped in the enemy rear.

264. Mission

Exploiting forces may be given the mission to seize objectives deep in the enemy rear, to cut lines of communication, to surround and destroy enemy forces, to deny escape routes to encircled forces, and/or to destroy enemy general reserves.

265. Preparation

Preparation includes careful prior planning, issuing of warning orders, grouping of the exploiting forces, planning for their logistic support to and beyond the objective, and the establishing of communication methods. Tactical Air Force close support for the exploiting forces is coordinated at this time. During this period objectives are selected. Normally intermediate objectives are not prescribed for the exploiting force. The exploiting force should be highly mobile, heavy in armor and motorized elements, with sufficient engineer and other combat support units to ensure retention of this mobility in the face of obstacles both natural and artificial. Army aviation transport units may be utilized to augment the organic mobility of the force or to assist in its logistic support. Flexible fire support plans should be

devised to cover all foreseeable contingencies. These plans should include provision for employment of available artillery (including guided missiles and free rockets), offensive air support, the use of atomic weapons delivered by all available means, and, if applicable, naval gun fire. These fire plans should be detailed and comprehensive and should receive necessary dissemination within the exploiting force.

266. Initiation

Exploitation is initiated upon order or when attacking forces reach a prescribed objective or phase line. It may also be initiated by a commander when the situation of the enemy confronting him has deteriorated to a level which favors such action. Among indications of conditions favoring initiation of the exploitation phase are an increase in numbers of captured forces, an increase in amount of abandoned equipment, the overrunning or destruction of hostile artillery, and the seizing of higher headquarters command posts or communication installations, supply installations, and similar facilities. Exploitation should be designed to deny the enemy any respite from offensive pressure. Once begun, the exploitation is carried out with aggressiveness and initiative on the part of all commanders concerned, with no let-up in the drive to the final objective.

267. Conduct of the Exploitation

a. The mission assigned the commander of the exploiting force must be broad in scope to avoid restricting his initiative and ability to seize all opportunities to disorganize and disrupt the enemy. In an operation which is not supported by atomic fires, exploiting forces are committed normally upon seizure of the decisive objective in the penetration or envelopment. Prior commitment may involve a major portion of the exploiting force in undesirable combat to break through the last defensive positions of the enemy. When an attack is supported by atomic fires, however, forces of exploitation may be committed in the initial attack, or at any time thereafter, depending on the predicted or actual effects of the atomic fires on the enemy, and possible effects on friendly exploiting forces.

b. Exploiting forces continue the advance in the decisive direction. They strive to arrive at the assigned objective with maximum strength. The commander must be alert to prevent his forces from being dissipated, through the achievement of minor tactical success in the zone of his advance, and to the possibility that subordinate units may become encircled and cut off. In this event, the commander must decide, in light of his mission, whether to continue the exploitation, leaving the rescue of encircled forces to following supporting troops, or to divert a substantial part of his force to this purpose. Enemy resist-

ance of insufficient strength to jeopardize the success of the commander's mission is bypassed or contained with minimum forces only, until following supporting troops arrive. The decision to bypass or contain is made by the local commander based on his overall mission. This action is reported immediately to the next higher headquarters.

c. Aggressiveness on the part of all commanders and decentralization of command are characteristic of the exploitation. Orders are frequently fragmentary and verbal. This aggressiveness and decentralization does not imply a lack of control on the part of the overall commander. Control is vital to prevent overextension of the command in the face of an enemy, who may regroup unexpectedly and attempt to defeat the exploiting force in detail. Commanders exploit all weapons and available means, to include close support tactical air, to overrun enemy forces which cannot be bypassed or contained for any reason. Exploitation should continue in spite of reduced visibility due to darkness or weather, with due consideration given to the physical condition of troops and equipment. Additional considerations may be terrain, control, observation, and the difficulties of employing supporting weapons to include air. Reconnaissance elements, both ground and air, are employed to keep commanders informed of hostile activities and movements within their zones of action. Rapid advance of the exploiting forces decreases the vulnerability of exposed flanks and reduces the threat of enemy mass destruction weapons. Supporting forces following the exploiting force provide additional flank protection, expand the zone of the exploitation, eliminate bypassed or contained enemy, and may assist in the logistic support of the exploiting forces.

d. As enemy demoralization begins and enemy forces disintegrate under relentless pressure, exploitation may develop into pursuit.

268. Pursuit

a. Pursuit is a type of offensive military operation which is a *phase* of exploitation. It seeks to destroy the retreating hostile force. Forces in pursuit consist of a direct pressure force or a combination of direct pressure and encircling movement. In the latter case, direct pressure against retreating forces is maintained relentlessly while an enveloping or turning force cuts the enemy lines of retreat. Double envelopment of the retreating main force is attempted whenever conditions permit. Other operations, conducted concurrently with the pursuit, may be required by economic, political, or other considerations. Such operations may be the seizure and safeguarding of an installation of intelligence value, the seizure and control of a large center of population, or missions of similar nature. Such operations and secondary military ones are generally undertaken only when the at-

tacker's superiority warrants diversion of troops to missions other than pursuit.

b. During the pursuit phase, the enemy has lost his ability to influence the situation and reacts in consonance with the pursuer's actions. It is launched when the enemy is no longer able to maintain his position and seeks to escape. Pursuit operations are conducted aggressively and under decentralized control. Commanders remain well forward to provide impetus to the pursuit and to insure adequate provision of fire and logistical support. Pursuit is pushed to the utmost limit of endurance of troops and equipment. During the pursuit, commanders may be justified in taking operational risks greater than normal, in order to destroy the hostile force.

c. Since the pursuit is a phase of exploitation, doctrine, and techniques discussed in paragraphs 263, 265, 266, and 267 apply.

d. The forces engaged in direct pressure and encircling maneuvers are controlled by the assignment of deep objectives, broad missions, axes of advance, boundaries, and zones of action. Maximum latitude is given to subordinate commanders to permit exercise of their initiative. Decentralization of control of fire support and of logistical means may be required.

e. Employment of forces transported by Army aviation to leapfrog in succession over enemy rear-guard positions not only greatly speeds up the advance, but enables sections of the enemy forces to be cut off and destroyed without decrease in the momentum of the pursuit. These forces landed deeper in the enemy rear may effectively hinder or block hostile efforts at escape.

f. Commanders of combat units may be directed to assign missions to guerilla forces in their zones of action. Guerilla forces are used to further the confusion in the enemy's ranks and to hamper his retreat or efforts to reorganize. Liaison means for this purpose should be furnished the pursuit force commander by the headquarters which controls and coordinates guerilla force activities.

269. Direct Pressure Force

a. Mission. The direct pressure force attacks continuously to prevent enemy disengagement and subsequent reconstitution of the defense, and to inflict maximum casualties on the enemy.

b. Composition. Emphasis is placed on highly mobile forces and heavy, long-range fire support to obstruct hostile avenues of retreat, and on engineer units which must rapidly clear the zone of obstacles created by the enemy. Sufficient force is desirable to allow relentless attack, day and night.

c. Conduct. Once contact with the retreating enemy is gained, it is maintained throughout the duration of the pursuit. Leading elements of the direct pressure force push fast moving columns forward along

all available roads. They contain or bypass small pockets of resistance. The main body of the direct pressure force follows closely, mops up contained or bypassed hostile units and is prepared to reinforce the leading elements if stronger enemy forces attempt to stand and fight. When possible, units continue their march through the night or make limited objective night attacks to keep the enemy off balance. The direct pressure force also attempts, by close envelopments, to cut off the retreat of segments of the enemy.

d. Fire Support With the Direct Pressure Force. Timely and rapid displacement of artillery units is necessary to provide continuity of fire support. Fire support for fast moving columns may be provided by column cover—a mission to provide cover over a column of friendly forces by aircraft in radio contact therewith, to provide protection, reconnaissance, and/or attack of air or ground targets which threaten the column. Other Air Force elements are employed to concentrate on critical points, probable lines of enemy withdrawal, especially defiles, on his columns in retreat, and on hostile reserves endeavoring to reconstitute the defense.

270. Encircling Force

a. Mission. The mission of the encircling force is to get in rear of the defeated enemy and block his retreat so that he may be destroyed between the direct pressure and encircling forces.

b. Composition. Armor and motorized units are employed in the encircling force, and tactical aviation is coordinated with the maneuver of this force. Emphasis again is placed on engineer units which must rapidly clear the path of obstacles. Heavier artillery usually is left with the direct pressure force. Airborne or air-landed troops may be used to seize defiles or other critical terrain objectives deep in the hostile rear.

c. Conduct of the Encirclement. When practicable, mobile forces in the encircling maneuver advance along roads paralleling the enemy's line of retreat, attempting to reach defiles, bridges, and other critical points prior to the enemy main force. When the encircling forces cannot outdistance the enemy, they engage the enemy's main forces in flank, seeking to force him to fight under the most unfavorable conditions and ultimately in two or more directions simultaneously.

279. General Outpost

a. The general outpost, * * * main battle position. **In the mobile defense the strong points of the forward defensive area may perform the missions of the general outpost for the remainder of the division.**

* * * * * * *

280. Combat Outposts

* * * * * * *

d. (Added) In the mobile defense the observation posts established by strong points in the forward defensive areas perform the missions of a combat outpost.

282. Basic Types of Defense

There are two * * * position by counterattack. In the *mobile defense*, the bulk of the force is held as a mobile striking force with the remainder manning the forward defensive **area.** The forward defensive **area** may consist of islands of resistance, strong points, or observation posts, or any combination thereof. These islands of * * * favorable tactical location.

287. Mobile Defense

a. General. Mobile defense is that method of defense in which **the** forward defensive **area is** occupied by the minimum forces necessary to warn of impending attack, canalize the attacking forces into less favorable terrain, and block or impede the attacking forces, while the bulk of the defending force is employed in offensive action to destroy the enemy at the time and place most favorable to the defender. If conditions are * * * warrant such employment.

b. Forward Defensive Area. **The forward defensive area is that portion of the defensive sector in which the forward defensive positions are located. Its forward edge is determined between divisions and higher units by limiting points normally established by the next higher headquarters. Its rearward limit is based on a consideration of the area required by units occupying forward defensive positions to accomplish their missions, and on a consideration of the capability of these units to prevent infiltration and maintain surveillance over the assigned area.** The forward defensive **area** may consist of any combination of the following:

* * * * * * *

(2) *Strong points.* Strong points consist of teams varying from a few men to a reinforced **battalion** in size. **Armored division strong points consist of teams varying from a few tanks and armored infantry to a reinforced battalion.** They occupy positions * * * the situation warrants.

* * * * * * *

c. The Striking Force. **The balance of the defensive sector behind the forward defensive area is known as the striking force area. The designation of a striking force area does not imply area responsibility for the striking force commander. Consistent with his primary mission the striking force commander may be called upon by the higher commander to provide small mobile**

security and reconnaissance forces to operate within this area. The remainder of * * * the defender's choosing. The striking force may be assembled in one or several areas **within the striking force area** depending on width of sector, terrain, enemy capabilities (to include air and mass destruction), and planned manner of employment. It should be strong in armor.

d. (Added) When the infantry division is employed in the mobile defense, strong points are normally occupied by reinforced battalions. The striking force is normally deployed in dispersed blocking positions in the striking force area. If the infantry division is required to organize an island or islands of resistance, its capability for conducting all aspects of the mobile defense is reduced. Situations may arise when terrain and the enemy situation permit the employment of forces smaller than a reinforced battalion in the strong points of the forward defensive area and permit the striking force to assemble in one or several assembly areas in the striking force area.

291. Organization of the Ground

* * * * * * *

c. Obstacles (Barrier Systems, Minefields). The purpose of * * * of superior echelons. For details of land mine warfare, see FM 20-32.

d. (Superseded) *Use of Chemical Munitions.* Chemical munitions may be used effectively in actual organization of the ground and in defensive fires against troop concentrations, assembly areas, materiel, and supplies. Chemical agents in persistent form may be employed effectively to form barriers and to reinforce other obstacles and demolitions. Chemical land mines may be integrated into HE minefields to increase the effectiveness of the field and to hinder breaching activities. Flame land mines and emplaced flame throwers are especially effective against assaulting enemy infantry. Smoke may be employed to neutralize enemy observation and to create confusion in assault formations of enemy infantry and armor. For use of chemical munitions in the counterattack phase of the defense, see paragraph 251.

* * * * * * *

297. Relief in Place in the Defensive

a. (Superseded) Where the defense continues for a prolonged period, the necessity for conservation of the fighting power of the troops requires provision for the periodic relief of units. For the sake of continuity in the defense, the relief is executed by echelon. The relief is executed either from rear to front or front to rear as directed by the higher commander who considers these factors:

(1) Size of unit(s) making the relief.

(2) Strength and combat efficiency of the unit(s) on the line of contact.

(3) Capability of enemy intelligence effort.
(4) Need for varying the pattern of relief.
(5) Atomic capability of the enemy.

* * * * * * *

299. Defense Against Atomic and CBR Weapons

a. (Superseded) If the enemy has the capability of employing atomic and CBR weapons, commanders intensify appropriate individual and unit training in defense against these weapons.

* * * * * * *

319. Employment of Armor and Infantry

a. Armor is ideally suited to delaying action because of its mobility, **its flexibility of organization,** its ability to engage the enemy with long-range, flat trajectory fire, and its signal communications which permit control over wider areas than like infantry units. **Armor is capable of effecting continuous delay between as well as on successive positions. Effective utilization of the inherent characteristics of armor permits delay on advantageous positions as the action develops.** Armored delaying positions * * * next firing position.

* * * * * * *

320. Delay on Successive Positions

(Superseded)

a. Delay on successive positions is the most used type of delaying action by both armor and infantry. Armor units delay on the initial delaying position and continuously between as well as on successive positions. After delaying on the initial position, infantry units offer resistance between delaying positions within their capability; however, the bulk of their forces is moved to the rear and maximum resistance is offered on the next successive delaying position. Delay on successive positions is employed when space is available, the time that the enemy must be delayed is long, and the terrain is suitable.

b. The mission, the terrain, the time available to organize positions, and the relative size and composition of opposing forces will determine the amount of delay that can be accomplished. Delay by infantry is facilitated by selecting positions at such distances apart that the withdrawal may be completed during 1 night, yet far enough apart so that the enemy must reorganize his force prior to the attack of the next position. In the selection of positions, consideration must be given to the location of natural and artificial obstacles, particularly when the enemy is strong in armor.

c. In order to inflict maximum delay on the enemy by engaging him at long ranges and causing him to deploy early, infantry employs

armor, artillery, and infantry weapons well forward. Armor seeks to accomplish maximum delay by placing the bulk of its firepower forward and through continuous delay, breaking contact only when a withdrawal from action is required.

d. The loss of a defended locality by infantry or armor normally does not require an early withdrawal across the entire zone. Infantry employs adjacent units and the reserve to maintain the integrity of the position if their action will not result in the entire force becoming too heavily engaged. Armor does not normally seek to maintain the integrity of the position because of its ability to afford continuous delay. Counterattacks are launched when necessary to accomplish additional delay in order to accomplish the assigned delay mission or when necessary to facilitate the withdrawal of other elements.

e. Preparation of the next rearward position is of prime importance. When necessary, troops of the delaying force are employed for this purpose. Just prior to withdrawal from the forward position, infantry disposes some elements of the delaying force on the rearward or an intermediate position to cover the occupation of the former by the main delaying force. Armor, just prior to withdrawal, moves part of the delaying force to the next rearward position while the remainder of the force continues to delay between positions. Armor normally does not withdraw simultaneously throughout its zone; instead, control is decentralized and withdrawals are made by subordinate units when ordered to do so, on prearranged plans, or when withdrawal is necessary to avoid becoming decisively engaged with the enemy.

f. When forced from the position by the threat of becoming too heavily engaged, a withdrawal from action is executed, whenever possible at night. Armor units conduct withdrawal by echelon, employing organic mobility and fire power to cover their own movements.

g. Chemical agents in persistent form may be effectively used to create barriers, to reinforce natural obstacles and demolitions, and to deny areas to the enemy. Chemical land mines are most effective when integrated into HE minefields.

h. Smoke is used to deny enemy observation and to screen the withdrawal or other movement of troops when such action is necessary during daylight hours.

343. Attack of a River Line

The special considerations involved in the attack of a river line are—

* * * * * * *

c. The river crossing * * * developed as follows:

* * * * * * *

(2) The attacker then * * * of the bridgehead. Normally these should eliminate **ground** observed artillery fire from

the selected crossing areas. The trace of * * * of vehicular bridges.

* * * * * * *

354. Attack in Woods

* * * * * * *

d. Chemical, Biological, Radiological. Chemical, biological, and * * * aerial navigation aids. Weather conditions in wooded areas are usually more favorable for the use of **toxic chemicals** than conditions in adjacent open areas.

* * * * * * *

362. General

In general, jungle * * * rather than distance. **Army aviation can be of great assistance in evacuation, supply, reconnaissance, and the movement of troops in support of jungle operations.** The training of * * * adverse climatic conditions.

380. General

Mountainous terrain offers * * * equipment and supplies. **Army aviation can be of great assistance in aero medical evacuation, supply, reconnaissance, and limited movement of troops in support of mountain operations.** Troops that are * * * receive increased emphasis.

385. General

Military operations conducted * * * and summer conditions. **Army aviation can be of great assistance in aero medical evacuation, supply, reconnaissance, and the movement of troops in support of arctic or subarctic operations.** Infantry units are * * * and unit rotation.

386. Characteristics

Operations are influenced * * * and often impossible. In such areas **Army aviation and** water transportation may be effectively utilized but effective land transportation means have not yet been satisfactorily developed to traverse those muskeg and tundra areas. Under conditions of * * * types of operations.

396. Organization of the Landing Force

a. General. A landing force * * * actual assault landing. The landing force size and organization may vary with each operation from a single battalion landing team to **an army.**

* * * * * * *

397. Planning

* * * * * * *

c. Tactical. The general scheme * * * require additional emphasis.

* * * * * * *

(3) The landing force * * * developed as follows:

* * * * * * *

(*b*) The attacker then * * * of the beachhead. Normally this action will prevent the enemy from bringing **ground** observed artillery fire to bear on the beaches. The trace of * * * vehicles and equipment.

* * * * * * *

405. Concepts of Employment

a. The employment of **airborne** forces envisions the use of aircraft to overcome distance or geographical barriers or to bypass enemy defenses.

* * * * * * *

f. To obtain maximum effectiveness in the initial assault, airborne landings are conducted in mass, with surprise, and completed in the shortest **practicable** time.

* * * * * * *

408. Capabilities and Limitations

* * * * * * *

b. Limitations. Air superiority is * * * large armored forces. This limitation is offset to a great extent by the use of light but powerful antitank weapons, by the provisions of strong air support, **and by selecting airheads which limit the employment of hostile armored forces.** The mobility of * * * to airborne forces.

411. Relative Characteristics of Airborne and Other Ground Operations

Tactical operations of * * * the following aspects:

* * * * * * *

c. The requirement for protection of those airfields, airstrips, and landing areas required for the buildup **may restrict** the freedom of maneuver of airborne units.

* * * * * * *

424. Execution

* * * * * * *

c. Assault. The initial assault * * * positions in depth. **Units** landed in areas other than those planned direct their efforts to the accomplishment of the general mission and establish contact with their respective headquarters as soon as practicable. As soon as * * * resume the offensive.

* * * * * * *

428. References

For additional details see FM 57–20, 57–30, 57–35, 101–5, and 101–10.

436. Combat Formations

a. Combat Commands. The organization of * * * its combat formations. When organizing for combat, the armored division is prepared to fight with three flexibly organized combat commands. The composition of * * * tasks at hand.

b. **Reinforced Battalions.** The units within the combat command ordinarily are organized under the combat command commander into **reinforced battalions** consisting basically of tanks, armored infantry, and armored engineers. Two types of * * * these reinforced battalions. The proportion of * * * the combat command. Artillery battalions normally are not **placed in direct support of or** attached to reinforced tank or armored infantry battalions. **When the mission assigned reinforced battalions of the combat command precludes fire support from attached artillery in general support of the combat command, all or part of the attached battalion(s) may be further attached to the subordinate elements of the combat command.** Reconnaissance and service * * * the combat command.

437. Characteristics

(Superseded)

a. General. Efficient employment of the armored division in the performance of a tactical operation depends on proper utilization of the mobility, armor protected fire power, extensive communications, flexibility of organization, and massed shock action which are characteristic of the division.

b. Mobility. Tanks and armored infantry vehicles provide for a high degree of cross-country mobility in armored division combat units. To capitalize on this inherent mobility, movements must be planned and coordinated. Techniques of marching, resupply, and maintenance must be perfected and applied. In planning an operation, the effects of terrain, obstacles, and weather must be given careful consideration.

c. Firepower. To achieve the maximum utilization of firepower, consideration must be given to both the effects of direct firepower of frontline units and to massed supporting fires. Adequate supplies of ammunition must be provided to combat units; resupply must be adequate and timely. A well-organized and defended position protected by obstacles and mines restricts the employment of shock action and increases the importance of firepower.

d. Communications. Radio is the primary means of communication of the armored division. Organic radio equipment of the division provides for a highly flexible and multiple communications system. The extensive communications system of the armored division provides the necessary means of control for rapid changes in the organization for combat and for the concentration of the division combat power on the objective or on emergency targets.

e. Flexibility of Organization. Flexibility of organization within the armored division in the composition of its combat formations allows the commander to select the most desirable organization for combat based on a consideration of the mission, terrain, enemy situation, and forces available (see pars. 435 and 436).

f. Shock Action. The armor-protected firepower and mobility of the armored division, efficiently controlled through proper utilization of flexible communications, permit the division to close with the enemy and to exploit its shock action with decisive results.

[AG 353 (20 Jul 56)]

By Order of *Wilber M. Brucker*, Secretary of the Army:

MAXWELL D. TAYLOR,
General, United States Army,
Chief of Staff.

Official:

JOHN A. KLEIN,
Major General, United States Army,
The Adjutant General.

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For explanation of abbreviations used, see SR 320-50-1.

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FIELD MANUAL

FIELD SERVICE REGULATIONS, OPERATIONS

CHANGES No. 1

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C. *16 December 1954*

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BY ORDER OF THE SECRETARY OF THE ARMY:

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FM 100–5 is published for the use of all concerned. This manual reflects policy, doctrine, and procedures current at the time of preparation. Developments in the tactical and technological fields, plus organizational changes in the Army will make corrections and changes necessary from time to time. Recommendations for corrections and changes should be forwarded to the Commandant, Command and General Staff College, for consideration and inclusion in future changes to this manual. (See SR 310–10–3 for desired format of recommendations for corrections and changes.)

FIELD MANUAL
No. 100–5

DEPARTMENT OF THE ARMY
WASHINGTON 25, D. C., *27 September 1954*

FIELD SERVICE REGULATIONS

OPERATIONS

*This manual supersedes FM 100–5, 15 August 1949, including C 1, 25 July 1952.

CHAPTER 1

INTRODUCTION

1. Purpose and Scope

a. This manual sets forth the doctrine for leading troops in combat and the broad aspects and principles of military operations of the combined arms and services. Its introductory chapter sets forth a broad concept of military operations and the relationships of the various military services in pursuit of those operations and in support of national policies and objectives. The manual constitutes the basis of instruction of all arms and services for combat.

b. This manual should be interpreted in the light of FM 27–10, Rules of Land Warfare, and studied in conjunction with FM's 110–5, Joint Action, Armed Forces, 100–10, Field Service Regulations, Administration; 100–15, Field Service Regulations, Larger Units; 101–5, SOFM, Staff Organization and Procedures; 101–10, SOFM, Organization, Technical, and Logistical Data.

c. In addition to the broad aspects and doctrines mentioned in *a* above, the manual covers organization, brief discussions of the arms and services, exercise of command in various types of combat, and basic information about the infantry, armored, and airborne divisions.

2. Army Forces

Army forces, as land forces, are the decisive component of the military structure by virtue of their unique ability to close with and destroy the organized and irregular forces of an enemy power or coalition of powers; to seize and control critical land areas and enemy lines of communications and bases of production and supply; and to defend those areas essential to the prosecution of a war by the United States and its allies. Army combat forces do not support the operations of any other component. In addition, Army forces have the unique capability to accomplish any or all of the following tasks under all conditions of terrain and weather:

a. Insure a positive defense against enemy land forces.

b. Apply pressure of a sustained nature on the enemy land forces and thus contribute directly to the attrition of his resources.

c. Combat guerilla forces on the ground and suppress revolutions.

d. Force enemy land forces to mass in numbers so that his vulnerability to all types of assault is increased.

NOTE.—For military terms not defined in this manual, see SR 320–5–1.

e. Prevent enemy land forces from large-scale infiltrations into friendly rear areas.

f. Provide positive and continuous control of the enemy's land areas and the populations therein, and enforce surrender terms, once victory has been achieved.

3. Supporting Forces

During the course of military operations Army forces, because of their decisive capabilities, are supported from time to time by other military components as the nature of the situation may require. Thus, sea forces may convey field units to the theater of operations or to tactical objectives within the theater, support land operations by combat aircraft and gun fire, and furnish logistical support during operations on land, a role which includes keeping open the lines of communication by engaging hostile sea forces. In like manner, air forces may provide transportation for field units in strategic or tactical operations, afford logistical support in certain circumstances, provide defensive cover over the combat zone, and serve as mid-range fire support elements against hostile field units or a very long-range weapons delivery system against rear area installations supporting hostile field forces. In any case, the efforts of all components are directed toward insuring the success of the land force operation.

4. Doctrine

The basic doctrine of Army operations is the defeat of an enemy by application of military power directly or indirectly against the armed forces which support his political structure. Though Army forces do not deliberately make or invite war upon civilian populations, damage to civilian economies and enemy centers of population is an incident to military operations that may be unavoidable. In general, indiscriminate destruction is unjustifiable in a military sense, since the Army destroys the instruments of enemy political force but does not destroy the bases on which a peace can be built when the conflict is over.

5. Overall Mission of Army Forces

The broad mission of Army forces in war is to bring to bear upon an enemy's military capacity sufficient power at decisive points and times to render it ineffective. During time of peace, the mission of Army forces is the preparation, by organization, training, equipment, and indoctrination, of field units capable of performing their wartime missions. In the accomplishment of this objective all military, economic, and psychological means are used except those banned by international agreement or those whose employment would defeat the aims of national policy. The possibility that an enemy may initiate the

use of means banned by international agreement necessitates equipment, training, and plans to insure prompt application of countermeasures. During periods of peace and war, Army forces, in conjunction with Air and Naval forces, have the overall mission of supporting national policies and objectives. Their maintenance in proper balance is essential if the objectives of national policy are to be attained. Forces in proper balance are those allocated from land, naval, and air forces, or from the elements of any one or more of these, to meet the requirements of a given mission and trained to operate in concert for a single purpose. A mobilization base to support these forces and to serve as a reservoir during periods of wartime expansion is fundamental to the effectiveness of the forces, especially the Army forces.

6. Employment

The nature of the political situation at any time may require employment of armed forces in wars of limited objective. In such cases, the objective ordinarily will be the destruction of the aggressor forces and the restoration of the political and territorial integrity of the friendly nation. Hostile forces in such limited wars are likely to be drawn from the populations of satellite countries, and be provided with minimum equipment by a major power. Generally, such forces will be composed of field units inured to hardship and rarely susceptible to interdiction by air or sea forces. Additionally, the nature of a war to halt aggression will dictate, at least initially, operations in friendly territory. And, finally, political considerations may prevent application of air measures against powers affording material support to the ostensible aggressor. The continuing possibility of such limited wars requires the maintenance in being of Army forces capable of immediate commitment and fully organized, trained, and equipped for combat, and at the same time possessing a capability of strategic mobility. Ordinarily, Army forces committed in such wars will be supported by sea and air forces at great distances from the continental United States. Army units organized, trained, and held available for commitment in wars of limited objective are equally available for commitment in a general war. Of land forces in being, only those of the Army are organized, equipped, and staffed to sustain themselves over extended periods under all foreseeable conditions of combat.

7. Command

Once military operations have begun, they cannot be conducted as two or three coordinated, but separate efforts. The efforts of all components of the military forces must be directed toward attainment of the same general objective and under one commander. In each strategic or tactical fraction of the whole effort joint forces may be employed. In the latter instances, all other components will be operating

in support of the Army component. Overall command normally is vested in the Army commander; technical details of the operations of supporting elements will be the responsibility of supporting element commanders. Coordination of effort, especially in tactical operations, cannot be substituted for command.

8. Limitations

Military forces are justifiable only as instruments of national policy in the attainment of national objectives. Since war is a political act, its broad and final objectives are political; therefore, its conduct must conform to policy and its outcome realize the objectives of policy. Victory alone as an aim of war cannot be justified, since in itself victory does not always assure the realization of national objectives. If the policy objectives are to be realized, policy and not interim expediency must govern the application of military power. Except in the prosecution of war in furtherance of a policy of ruthless annihilation, Army forces most nearly conform to the requirements of national policy, since Army forces are designed to apply power directly against military power, with minimum damage to civilian populations and economies.

9. General Considerations for Operations

a. While the doctrines of combat operations are neither numerous nor complex, their application may be difficult. Knowledge of doctrine and experience in its application provide a sound basis for action in combat. These also enable the commander to utilize the capabilities of his force in the manner best suited to the accomplishment of his specific mission.

b. Set rules and methods must be avoided. In its exposition of the principles which govern the application of military power, this manual does not establish inflexible rules, conformity with which guarantees success. Individuals using it should consider it the foundation upon which experience and imagination may contribute to the development of successful military concepts. The manual will be used to provide guidelines to govern the actions of individuals serving in positions of combat leadership, in positions interrelated with the other Military Services, and to serve as a firm basis for the utilization of Army doctrine in the Army's military educational system.

c. The principles governing the conduct of military operations, the Principles of War, are immutable, but doctrines, tactics, and techniques must be modified with advances in weapons and weapons systems, transportation, and other means applicable to war. The tactics and technique of employment of a new development must be kept abreast of the progress of the development itself. Flexibility of thought, as well as of action, is essential to successful command.

d. The projection of the tactical effect of a new development must be based upon a realistic consideration of its characteristics and progress in development in related fields. Thus a weapon whose deadliness dictates increased dispersion to reduce casualties may be offset by developments in signal communications and transportation, which permit the desired dispersion without reduction in cohesion and control.

e. Sound conclusions concerning the tactical effect of a new development form the basis for consideration of new tactical doctrine. Usually, a new development merely extends the capabilities of existing agencies without necessitating radical revision of existing doctrine. Thus, within the broad scope of existing tactics and doctrine, as an example, ground-launched guided missiles extend the range and power of artillery. In exceptional cases a development may possess potentialities which dictate radical revision of the conduct of tactical operations. History has provided the examples of the crossbow, firearms, automatic weapons, and other developments. The full import and extent of changes resulting from the employment of the latest developments, the nuclear and thermonuclear weapons and the guided missiles, is not clear at this time. It is, therefore, of the utmost importance that all officers carefully evaluate every situation, both static and fluid, considering the enhanced capabilities of each opponent as a result of employment of the weapons and the limitations imposed on the employment of the forces as a result of the availability of the weapons.

f. The analysis of the impact of new developments upon the doctrine and tactics of the combined arms must be accurate, constant, and detailed. Military thought must be alert to modify the doctrine set forth in these regulations as appropriate.

CHAPTER 2

ORGANIZATION

Section I. TERRITORIAL ORGANIZATION

10. Theater (Area) of War

A theater of war is that area of land, sea, and air which is, or may become, involved directly in the operations of war.

11. Theater (Area) of Operations

A theater of operations is that portion of a theater of war necessary for military operations and for the administration incident thereto.

12. Combat Zone

A combat zone is the forward area of a theater of operations where combat troops are actively engaged. It includes that area necessary for the operations of the combat forces and extends rearward to the forward boundary of the communications zone. Its depth is dependent upon the nature and size of the forces assigned, the nature of the operations contemplated, the requirements for administrative support, the important terrain features, and the enemy capabilities. It may be divided for tactical control into army group, field army, corps, and division areas each of which is controlled by its commander. The rear boundary of the combat zone is designated and modified by the theater commander to conform to the movement of the combat forces.

13. Communications Zone

A communications zone is that part of a theater of operations behind and adjoining the combat zone. It contains the lines of communications, establishments for supply and evacuation, and other agencies required for the immediate support and maintenance of the field forces. Its boundaries are located to best serve the combat zone commanders. It may include areas necessary for the operation or support of Air Force or Naval units based outside the combat zone. It is a link in the chain of supply and evacuation between the combat zone and the zone of interior.

14. Zone of Interior

The zone of interior ordinarily comprises all national territory exclusive of theaters of operations, but may include foreign territory.

15. Territorial Organization

For additional details on territorial organization see FM 100–10.

Section II. OPERATIONAL ORGANIZATION

16. Mission of the Army

The mission of the Army is to seek out and destroy organized enemy land forces; suppress enemy land forces of a para-military nature; engage and destroy forces supporting enemy land operations; seize, occupy, and defend land areas and the approaches thereto; conduct land campaigns; attack and destroy hostile targets in the air; interdict enemy land power and communications within range of army weapons or forces; and to organize, train, and equip all components of the Army forces. For additional details on the organization and functions of the Army see FM 110–5.

17. Army Establishment

The Army Establishment is organized to provide, under the Secretary of the Army and the Chief of Staff, a Department of the Army staff and such combat and service forces and commands in the zone of interior and oversea areas as may be necessary to the national security. The organization also includes the Office, Chief, Army Field Forces, which is the field operating agency of the Department of the Army charged with the general direction, supervision, coordination, and inspection of matters pertaining to the development of tactics, techniques, and materiel for use by the Army in the field; and with the training and training inspection of individuals and units of the Army in the field.

18. Organization of the Armed Forces in the Field

The armed forces in the field consist of components of the Army, Navy, and Air Force organized separately, or in combination as provided in FM 110–5, Joint Action Armed Forces, into such theaters of operations, unified commands, specified commands, and other commands or joint task forces as may be established by appropriate authority.

19. Operating Forces

The operating forces include both combat and service units. Most units, in addition to their operational functions, have internal administrative responsibilities. For economy and flexibility in the assignment of tasks, the means not habitually required in fixed quantities by a unit are pooled and assigned to a higher unit. This facilitates the allotment of weapons and services to subordinate units in accordance with their requirements for particular operations.

20. Larger Units

Larger units consist of theater army, army group, field army, and corps. For details of their organization and employment see FM 100–15.

21. Division

The division is the basic combat unit of the combined arms and services. It is the largest unit whose organization is prescribed by tables of organization and equipment and comprises a headquarters, infantry, armor, artillery, engineer, signal units, and certain service units. It has internal administrative responsibilities.

22. Brigade

The brigade is an operational unit composed of two or more regiments or groups, a headquarters and headquarters company (battery), and other necessary units. A brigade may comprise units of the same or of different arms and services and may have internal administrative responsibilities.

23. Group

A group is an organization of variable size consisting of a headquarters and two or more attached units, usually battalions of the same arms or service, combined under one headquarters for the purpose of accomplishing a tactical or administrative mission. The group usually has only limited administrative responsibilities.

24. Regiment

The regiment is an operational unit of fixed size which may have combat or service functions. It has internal administrative responsibilities. The regiment ordinarily consists of a headquarters, necessary units for control and service functions, and two or more organic battalions or similar organic units.

25. Battalion

The battalion comprises a headquarters, necessary units for control and service, and two or more companies or batteries. Battalions may be either separate or organic to a larger unit. A separate battalion has internal administrative responsibilities; an organic battalion may not have. In the combat arms, the battalion is the basic tactical unit.

26. Company or Battery

The company or battery is an operational unit which has either combat or service functions. It is the smallest unit habitually provided with its own internal administrative agencies.

27. Tactical Groupings

Tactical groupings are balanced arrangements of combat and service units to accomplish a tactical mission.

a. Task Force. A task force is a temporary grouping of units under one commander and is formed for the purpose of carrying out a specific operation or mission.

b. Combat Command. The combat command is a major tactical unit of combined arms within an armored division and consists of a headquarters and headquarters company and a variable number of attached units or elements thereof.

c. Combat Team. The regimental combat team is a reinforced infantry regiment operating as a balanced team of the arms and services. It normally is composed of one regiment of infantry with a battalion of field artillery, a company of engineers, and a battery of antiaircraft artillery attached. This composition may be changed to meet the demands of the tactical situation. In some situations a combat team may need other attachments, such as an ambulance platoon and a clearing platoon from the medical battalion, a signal detachment from the signal company, additional tank units, additional field artillery, or other units.

CHAPTER 3

BRANCHES OF THE ARMY

Section I. GENERAL

28. Branches

a. The branches of the Army are classified as the basic branches and the special branches.

b. The basic branches are Infantry, Armor, Artillery, Corps of Engineers, Signal Corps, Adjutant General's Corps, Quartermaster Corps, Finance Corps, Ordnance Corps, Chemical Corps, Transportation Corps, and Military Police Corps.

c. The special branches of the Army are the several corps of the Amy Medical Service, the Judge Advocate General's Corps, and the Chaplains.

d. There is a Women's Army Corps whose members may be detailed to certain branches indicated in *b* and *c* above.

29. Arms and Services

The branches of the Army are grouped into arms and services. The arms are those branches whose primary mission is combat and combat support; other branches are services. Some branches have essential missions in both fields.

a. The arms are Infantry, Armor, Artillery, Corps of Engineers, and Signal Corps.

b. The services are the Adjutant General's Corps, Army Medical Service, Chemical Corps, Chaplains, Corps of Engineers, Finance Corps, Judge Advocate General's Corps, Military Police Corps, Ordnance Corps, Quartermaster Corps, Signal Corps, Transportation Corps, and Women's Army Corps.

30. Administrative and Technical Services

The services are further classified as follows:

a. The administrative services—Adjutant General's Corps; Chaplains; Judge Advocate General's Corps; Finance Corps; Military Police Corps; and Women's Army Corps.

b. The technical services—Army Medical Service; Chemical Corps; Corps of Engineers; Ordnance Corps; Quartermaster Corps; Signal Corps; and Transportation Corps.

31. Coordination

The coordinated action of all arms and services is essential to success. Each branch is designed for specific functions. The commander coordinates and directs the action of all, exploiting their capabilities to attain the ends sought. For details of the operations of the services in the performance of their administrative functions in the theater of operations, including administrative support of the Air Forces, see FM 100–10.

Section II. INFANTRY

32. Mission

The mission of the infantry in the attack is to close with the enemy and destroy or capture him; in defense, it is to deny the enemy selected localities and destroy his forces by coordinated fire and counterattack.

33. Characteristics

The infantry is the arm of close combat; it is characterized by tenacity, endurance, and deliberateness. It accomplishes its mission by fire, maneuver, and shock action. In the attack, infantry advances by the aggressive application of fire and movement, in conjunction with maneuver. By fire and maneuver, it inflicts losses on the enemy, fixes him in position, and neutralizes his combat power; by maneuver, it makes its own fire more effective, and facilitates closing with the enemy to complete his destruction; by fire and shock action gained by the assaulting infantry as it closes physically with the enemy, it completes the enemy's destruction or destroys his will to resist. In the defense, infantry combines the use of field fortifications and obstacles with the effective coordination of fires and the aggressive and timely application of the counterattack.

34. Capabilities

Infantry can physically seize and hold ground and force the enemy from its occupancy by close combat. It can maneuver over terrain which is impassable to other arms. Its ability to move in small and inconspicuous formations enables it to take advantage of covered routes of approach and minor accidents of the terrain in order to overcome strong defensive positions. Due to its adaptability to any type of transportation, infantry can be readily given tactical mobility.

35. Limitations

Infantry fights on foot; therefore, its *battlefield* mobility is that of the foot soldier. It is handicapped in operating against more mobile forces. Without support, infantry is capable of only limited independent action. For decisive operations, it must be reinforced ade-

quately by artillery, armor, and engineers. Close support by combat aviation may also be necessary. Infantry is susceptible to the adverse effects of prolonged periods of combat. Its physical effectiveness is materially reduced by difficult terrain and unfavorable weather. In order to conduct sustained operations effectively, infantry must be given relief periods from prolonged combat for rest, rehabilitation, and retraining.

36. Employment

The characteristics of infantry make it particularly suited for employment in difficult terrain and in the attack of organized defensive positions strong in antitank means. Motorized infantry is especially suited to follow exploiting armor or for other missions requiring rapid movement for employment in distant accessible areas. Transported by air or water, it can be employed to seize decisive objectives or to operate in the enemy's rear. It should have ample time to plan, reconnoiter, and deploy. The maximum defensive power of infantry is obtained when it occupies strongly organized positions which the enemy cannot avoid. For infantry organizations and tactics, see tables of organization and equipment and FM's series 7.

Section III. ARMOR

37. Mission

The primary mission of armor is to attack, to disrupt, disorganize, and destroy enemy forces. It provides reconnaissance, security, and antitank defense for other forces.

38. Characteristics

Armor is characterized by mobility, armor-protected firepower, shock action, and extensive communications. Armor action is audacious and violent. It has a degree of protection against atomic weapons. The principal weapon of armor is the tank. Armor organization and tactics are designed to exploit to the maximum the capabilities of the tank.

39. Capabilities

Armor is capable of covering broad fronts and deep zones of action. It can concentrate rapidly and disperse over extended distances in combat ready formations. It is able to deliver a large volume of long-range direct fire as well as indirect fire and to execute rapid engagement and disengagement. It possesses a capability of heavy assault. It is well suited to gather and report information and to disrupt enemy ground reconnaissance.

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40. Limitations

Armor is particularly sensitive to terrain, obstacles, and weather. It has difficulty in operating during periods of limited visibility. Armor action requires large quantities of supplies, special supply trains to keep the combat vehicles supplied with fuel and ammunition, and frequent periods of vehicle maintenance.

41. Tactical Employment

a. Armor is most effectively employed in mass and in a mobile role; when employed statically or piecemeal it loses much of its effectiveness. Armor units should, therefore, be employed in striking deep into enemy rear areas, in executing counterattacks and spoiling attacks, in conducting retrograde and security operations, and in exploiting successes achieved by other means. It is particularly suited for immediate penetration through enemy defenses which have been disrupted by atomic attack. Defensively, armor is best suited for the mobile defense or for use as the mobile reserve for a larger force. It may be used to effect penetrations and to restore impetus to an attack which has lost momentum.

b. Armor reconnaissance units are particulary suited for reconnaissance and counter-reconnaissance, for battlefield and march security, for maintenance of contact with the enemy and between major friendly units, for seizing and holding critical terrain for a limited time, for delaying action, and for holding wide fronts lightly. Heavy gun tank battalions are particularly suited for reinforcing the direct firepower, particularly antitank, of other units.

c. For armor organization and tactics, see tables or organization and equipment and FM's, series 17.

Section IV. ARTILLERY

42. General

The artillery comprises both field and antiaircraft artillery.

43. Mission of Field Artillery

The primary mission of field artillery is to support infantry and armor by neutralizing or destroying with fire those targets most likely to hinder the accomplishment of their missions.

44. Characteristics of Field Artillery

Field artillery is characterized by its flexibility and great volume of accurate firepower. It can rapidly shift and concentrate its fires within an area of great width and depth. This flexibility of firepower may be achieved from widely dispersed positions without moving and under practically all conditions of weather and visibility.

45. Capabilities of Field Artillery

Field artillery (including its atomic capability) provides the commander with a powerful means of rapidly influencing the course of combat. It gives depth to combat by counterfire and by fire on hostile reserves and rear installations; it assists in the isolation of the battlefield by restricting movement in rear areas and by disrupting hostile command, control, and transportation facilities. Massed fires can neutralize or destroy enemy positions and create temporary barriers to enemy movement. Its target acquisition and fire control system has great intelligence potential. Field artillery also provides battlefield illumination.

46. Limitations of Field Artillery

Adequate control is essential to the maximum effectiveness of field artillery. This control depends on close liaison with supported, supporting, and adjacent units; on adequate observation, accurate maps or time-consuming survey; and on dependable signal communication. Without adequate, timely intelligence, and expeditious fire control procedures, field artillery cannot capitalize on targets of opportunity. It is particularly vulnerable to enemy air action. It requires large amounts of ammunition. Maximum effectiveness requires registration which may sacrifice surprise. Field artillery's mobility is limited by difficult terrain.

47. Employment of Field Artillery

a. Field artillery fire is most effectively employed in mass. When its fires can be massed, it affords the commander a highly flexible and potent means of influencing the action which can be shifted almost instantly from one critical area of the battlefield to another. Control of field artillery therefore should be retained at the highest level consistent with its capabilities, the foreseeable missions, and the situation. *It must be capable of rapid response to the desires of the force commander.* When control is thus centralized, maximum fire support can be provided to each subordinate element of the command. Field artillery retained at the higher echelons is used to deepen and reinforce the fires of subordinate units. This releases field artillery of subordinate echelons to place their maximum effort in close support of other arms. When, because of unusually wide frontages, difficulties of terrain, or the character of the operations, the missions cannot be accomplished with centralized control, control is decentralized to the necessary degree.

b. Field artillery is effective only by its fire; ordinarily, it is not held in reserve. Organic or supporting artillery of the reserve is placed in support of the engaged force if time and the situation will permit its employment with the reserve when committed.

48. Mission of Antiaircraft Artillery

a. General. The mission of antiaircraft artillery is to attack and destroy hostile targets in the air, on the ground, or on the water.

b. Air Defense Mission. The air defense mission is to attack all forms of enemy aircraft and guided missiles.

c. Surface Mission. The surface missions are to provide close fire support to infantry and armor and to carry out general support and reinforcing field artillery missions.

49. Characteristics of Antiaircraft Artillery

Antiaircraft artillery, except guided missile units, is characterized by its ability to deliver a heavy volume of accurate, flat trajectory, high velocity fire against *pin point* targets either stationary or moving at high speed in the air, on the ground, or on the water.

50. Capabilities of Antiaircraft Artillery

Antiaircraft artillery provides local protection for field forces and important ground establishments against all forms of enemy air activities by day and by night. It also provides an antiaircraft artillery information service (AAAIS) which gives warning of enemy air activities to the command. Due to the characteristics of its weapons (high muzzle velocity, flat trajectory, and rapid rate of fire) it may be effectively employed against surface targets to include tanks, fortifications, and small naval or land craft.

51. Limitations of Antiaircraft Artillery

a. In its antiaircraft mission, the effectiveness of antiaircraft artillery depends upon its freedom to engage airborne targets at maximum ranges. This freedom can be achieved only by the adoption of realistic rules of engagement. Antiaircraft artillery therefore must have timely intelligence, target acquisition and discrimination, and effective liaison with subordinate, adjacent, and higher antiaircraft artillery units and with friendly air forces. Antiaircraft artillery cannot prevent aircraft from attacking a defended area if the enemy is willing to accept the losses involved.

b. In its surface mission, antiaircraft artillery cannot attack defiladed targets. Because of their high silhouette, antiaircraft weapons are particularly vulnerable when executing direct fire missions. Antiaircraft artillery requires large amounts of ammunition due to its rapid rate of expenditure. This factor may become critical when executing direct fire missions.

52. Employment of Antiaircraft Artillery

a. A commander may decide to use all or any part of his antiaircraft artillery against ground or water targets while there is a threat of an

air attack, if he considers that these targets offer a greater threat to the successful accomplishment of his mission than does an air attack. Antiaircraft artillery is disposed and emplaced so as best to execute the assigned mission, air or surface. When possible, the weapons are sited so as to permit attack of targets other than those included in the assigned mission.

b. Antiaircraft artillery should be employed in mass to protect the most critical targets against air attack. Among these critical targets, priority is given to those which are least capable of their own air defense, either by active or passive means, and those most vulnerable to air attack. Normally, within the combat zone, critical targets will be major supply installations, important command and communications installations, important defiles, reserves, and field artillery, particularly those units capable of launching atomic missiles. Ordinarily, antiaircraft artillery is not held in reserve.

Section V. CORPS OF ENGINEERS

53. Mission

In support of combat operations the Corps of Engineers has the primary mission of construction, destruction, or other operations which facilitate the offensive effort, increase the defensive strength, and advance the welfare of field forces. Engineers may be employed as infantry when the situation dictates.

54. Support of Combat Operations

The functions performed by the Corps of Engineers in support of combat operations are—

a. Engineer support of river crossing, amphibious, denial, cover and deception operations, and camouflage activities.

b. Construction of floating and fixed assault bridging.

c. Performance of field engineering tasks (such as field fortifications, camouflage, demolitions, mine and antimine warfare, and camp improvement) and the provision of technical assistance in the training and employment of other organizations in performance of these tasks.

d. Provision of operating facilities, such as roads, railroads, airfields, headquarters installations, hospitals, and semipermanent camps.

e. Provision of supply and maintenance facilities such as ports, depots, shops, pipelines, and other petroleum distribution and storage systems, and large utilities systems.

f. Determination of requirements for and the procurement, storage, and issue of engineer supplies and equipment, including supply of water, common solid fuels, and materials and equipment for camouflage and construction.

g. Map and aerial photograph production and supply, surveying, engineer technical intelligence, and terrain studies.

h. Acquisition and disposal of real estate, provision of fire protection, and repair and operation of utilities.

i. Combat engineer units are organized to rapidly remove obstacles, repair and bypass road gaps and keep open close-up line of communications so that the mobility of armor and movement of artillery and essential infantry support is not prejudiced. They are so armed as to strongly resist enemy interference while conducting these tasks. Their engagement should be restricted to the most important engineer tasks since their employment in unimportant or nonengineer tasks will result in a decreasing mobility of the operation and an attenuation of logistic support.

j. Development, modification, and maintenance of engineer items of issue.

k. For details of Corps of Engineers organization and functioning in the field see tables of organization and equipment series 5 and FM's series 5, 100–10, 101–5 and 101–10.

Section VI. SIGNAL CORPS

55. Mission

In support of combat operations the Signal Corps has the primary mission of furnishing signal communications, supply, and services and of preventing or limiting the enemy use of electronic aids to warfare.

56. Support of Combat Operations

The functions performed by the Signal Corps in support of combat operations are—

a. Provision of technical supervison over the signal service in support of the field forces.

b. Provision of signal communications to other branches and commands except where such responsibility has been specifically assigned to another branch.

c. Development, modification, and maintenance of signal items of issue.

d. Determination of requirements for and the procurement, storage, and issue of signal supplies and equipment.

e. Provision of photographic services.

f. Provision of signal technical intelligence.

g. Provision of electronic warfare support to prevent or limit the enemy use of electronic aids to warfare.

h. For details of Signal Corps organization and functioning in the field see tables of organization and equipment series 11 and FM's series 11, 100–10, 101–5, and 101–10.

Section VII. CHEMICAL CORPS

57. Mission

In support of combat operations the Chemical Corps has the primary mission of furnishing the means for and the technical guidance in the employment of and defense against CBR (chemical, biological, and radiological) weapons.

58. Support of Combat Operations

The functions performed by the Chemical Corps in support of combat operations are—

a. Operation of smoke generating equipment and special chemical weapons.

b. Decontamination of areas and materiel and assistance to other units in such tasks.

c. Determination of requirements for and procurement, storage, and issue of Chemical Corps supplies and equipment.

d. Development, modification, and maintenance of Chemical Corps items of issue.

e. Technical supervision over CBR warfare materiel.

f. Field impregnation of clothing.

g. CBR technical intelligence.

h. For details of Chemical Corps organization and functioning in the field see tables of organization and equipment series 3 and FM's series 3, 21–40, 21–45, 100–10, 101–5 and 101–10.

Section VIII. ARMY MEDICAL SERVICE

59. Mission

In support of combat operations the Army Medical Service has the primary mission of insuring the health of the command and of promoting the combat effectiveness of the troops through preventive and remedial medical operations.

60. Support of Combat Operations

The functions performed by the Army Medical Service in support of combat operations are—

a. Provision of organic medical troops to certain units of the other arms and services to render emergency medical treatment and temporary care.

b. Provision for collection, sorting, evacuation, hospitalization, and convalescence of the sick and wounded and for prevention of disease; dental service; and veterinary service.

c. Determination of requirements for and the procurement, storage, and issue of medical, dental, and veterinary supplies and equipment.

d. Development, modification, and maintenance of medical, dental, and veterinary items of issue.

e. Provision of medical service technical intelligence.

f. Operation of medical service laboratories.

g. For details of Army Medical Service organization and functioning in the field see tables of organization and equipment series 8 and FM's series 8, 100–10, 101–5 and 101–10.

Section IX. QUARTERMASTER CORPS

61. Mission

In support of combat operations the Quartermaster Corps has the primary mission of providing Quartermaster supply and service support to the field forces.

62. Support of Combat Operations

The functions performed by the Quartermaster Corps in support of combat operations are—

a. Quartermaster supply to include determination of requirements for and procurement, storage, and issue of supplies such as subsistence, gratuitous issue, special services supply, clothing, liquid petroleum products, and animals.

b. Receipt, classification, and evacuation of salvage and captured materiel.

c. Development, modification, and maintenance of Quartermaster items of issue.

d. Provision of services such as laundry, mobile bath, bakery, mobile refrigeration, technical supervision of food preparation and service, animal transportation, sales store, collection and disposition of personal effects, graves registration activities, and troop labor pools.

e. Provision of Quartermaster technical intelligence.

f. For details of Quartermaster Corps organization and functioning in the field see tables of organization and equipment series 10 and FM's series 10, 100–10, 101–5, and 101–10.

Section X. ORDNANCE CORPS

63. Mission

In support of combat operations the Ordnance Corps has the primary mission of providing the field forces with the ammunition, arms, vehicles, and other Ordnance supply and services required for military operations.

64. Support of Combat Operations

The functions performed by the Ordnance Corps in support of combat operations are—

a. Ordnance supply to include determination of requirements for and procurement, storage, and issue of ammunition, arms, vehicles, fire control equipment, and their spare parts and accessories.

b. Development, modification, and maintenance of ordnance items of issue.

c. The provision of ordnance technical intelligence.

d. Technical supervision to include instruction on the capabilities, characteristics, limitations, proper operation, use, service, and supply of ordnance materiel in the hands of using units.

e. The provision of Explosive Ordnance Disposal service.

f. For details of Ordnance Corps organization and functioning in the field see tables of organization and equipment series 9 and FM's series 9, 100–10, 101–5, and 101–10.

Section XI. TRANSPORTATION CORPS

65. Mission

In support of combat operations the Transportation Corps has the primary mission of providing for the movement of personnel and materiel for the Army and as directed for the Navy, Air Force, and other agencies.

66. Support of Combat Operations

The functions performed by the Transportation Corps in support of combat operations are—

a. Determination of requirements for and the procurement, storage, and issue of Transportation equipment and supplies.

b. Movement control over transportation of Army personnel and materiel.

c. Operation of inland waterways, military railways, and such air, land, and water transport not assigned to other branches or Services.

d. Operation of Transportation supply and maintenance facilities such as aircraft shops and depots, railway shops, ports, and docks.

e. Development, modification, and maintenance of Army transportation items of issue.

f. Provision of transportation technical intelligence.

g. Provision of highway regulation.

h. For details of Transportation Corps organization and functioning in the field see tables of organization and equipment series 55 and FM 25–10, series 55, 60–30, 100–10, 101–5, 101–10, and TM 57–10.

Section XII. MILITARY POLICE CORPS

67. Mission

In support of combat operations the Military Police Corps has the primary mission of maintaining order and discipline and of enforcing laws, orders, and regulations.

68. Support of Combat Operations

The functions performed by the Military Police Corps in support of combat operations are—

a. The enforcement of highway traffic control.

b. The apprehension and disposition of stragglers, unauthorized absentees, escaped military prisoners, and other offenders.

c. The processing and evacuation of prisoners of war and other hostile personnel.

d. The prevention and investigation of crime.

e. Control of the movement of individuals and their identification.

f. Control of military prisoners.

g. For details of Military Police Corps organization and functioning in the field, see tables of organization and equipment series 19 and FM's series 19, 100–10, 101–5, and 101–10.

CHAPTER 4

THE EXERCISE OF COMMAND

Section I. PRINCIPLES OF WAR

69. General

The principles of war are fundamental truths governing the prosecution of war. Their proper application is essential to the exercise of command and to successful conduct of military operations. The degree of application of any specific principle will vary with the situation and the application thereto of sound judgment and tactical sense.

70. Objective

Every military operation must be directed toward a decisive, obtainable objective. The destruction of the enemy's armed forces and his will to fight is the ultimate military objective of war. The objective of each operation must contribute to this ultimate objective. Each intermediate objective must be such that its attainment will most directly, quickly, and economically contribute to the purpose of the operation. It must permit the application of the maximum means available. Its selection must be based upon consideration of means available, the enemy, and the area of operations. Secondary objectives of any operation must contribute to the attainment of the principal objective.

71. Offensive

Only offensive action achieves decisive results. Offensive action permits the commander to exploit the initiative and impose his will on the enemy. The defensive may be forced on the commander, but it should be deliberately adopted only as a temporary expedient while awaiting an opportunity for offensive action or for the purpose of economizing forces on a front where a decision is not sought. Even on the defensive the commander seeks every opportunity to seize the initiative and achieve decisive results by offensive action.

72. Simplicity

Simplicity must be the keynote of military operations. Uncomplicated plans clearly expressed in orders promote common understanding and intelligent execution. Even the most simple plan is usually difficult to execute in combat. *Simplicity must be applied to*

organization, methods, and means in order to produce orderliness on the battlefield.

73. Unity of Command

The decisive application of full combat power requires unity of command. Unity of command obtains unity of effort by the coordinated action of all forces toward a common goal. Coordination may be achieved by direction or by cooperation. It is best achieved by vesting a single commander with requisite authority. Unity of effort is furthered by willing and intelligent cooperation among all elements of the forces involved. Pearl Harbor is an example of failure in organization for command. See appendix II.

74. Mass

Maximum available combat power must be applied at the point of decision. Mass is the concentration of means at the critical time and place to the maximum degree permitted by the situation. Proper application of the principle of mass, in conjunction with the other principles of war, may permit numerically inferior forces to achieve decisive combat superiority. Mass is essentially a combination of manpower and firepower and is not dependent upon numbers alone; the effectiveness of mass may be increased by superior weapons, tactics, and morale.

75. Economy of Force

Minimum essential means must be employed at points other than that of decision. To devote means to unnecessary secondary efforts or to employ excessive means on required secondary efforts is to violate the principle of both mass and the objective. Limited attacks, the defensive, deception, or even retrograde action are used in noncritical areas to achieve mass in the critical area.

76. Maneuver

Maneuver must be used to alter the relative combat power of military forces. Maneuver is the positioning of forces to place the enemy at a relative disadvantage. Proper positioning of forces in relation to the enemy frequently can achieve results which otherwise could be achieved only at heavy cost in men and material. In many situations maneuver is made possible only by the effective employment of firepower.

77. Surprise

Surprise may decisively shift the balance of combat power in favor of the commander who achieves it. It consists of striking the enemy when, where, or in a manner for which he is unprepared. It is not

essential that the enemy be taken unaware but only that he becomes aware too late to react effectively. Surprise can be achieved by speed, secrecy, deception, by variation in means and methods, and by using seemingly impossible terrain. Mass is essential to the optimum exploitation of the principle of surprise.

78. Security

Security is essential to the application of the other principles of war. It consists of those measures necessary to prevent surprise, avoid annoyance, preserve freedom of action, and deny to the enemy information of our forces. Security denies to the enemy and retains for the commander the ability to employ his forces most effectively.

Section II. COMMAND

79. Commander

a. Command is that authority which an individual in the military service lawfully exercises over subordinates by virtue of rank or assignment.

b. In addition to authority, the functions of command carry broad responsibilities.

(1) Authority given to subordinates must be commensurate with their responsibilities. Authority can be delegated, responsibility cannot. Except in emergencies, commanders do not violate the chain of command since to do so is to jeopardize their subordinates' authority and destroy their initiative and sense of responsibility. In such emergencies bypassed commanders should be informed of the instructions issued without delay.

(2) The commander has sole responsibility for what his unit does or fails to do. He is responsible for accomplishing the mission assigned to him and for taking appropriate action in situations not covered by his orders. In the latter case he deduces his mission from his knowledge of the general plan of operations and promptly reports the action taken. Inaction and neglect of opportunities due to unwillingness to act in the absence of instructions may be more censorable than an incorrect action.

(3) The commander insures that his plans and intentions are clearly understood in order that his subordinates and staff may correctly and intelligently execute them even in cases not covered by special instructions. The commander must supervise the execution of his orders and take appropriate action to correct errors, especially when inaction on his part might be interpreted as approval.

80. Staff

The staff assists the commander in the exercise of his command by active supervision to insure that his plans and policies are carried out. It also assists him by providing information; by making studies, estimates, and recommendations; and by preparing and disseminating plans and orders. Staff officers must understand the policies of the commander and be thoroughly acquainted with the status, capabilities, and limitations of subordinate units. A staff officer, as such, does not exercise command. For details on staff organization and procedure see FM 101-5.

Section III. LEADERSHIP

81. General

a. Leadership is the art of influencing others to cooperate in the achievement of a common goal. It may be either authoritative or persuasive in nature, or both. Although the military command structure is designed to facilitate authoritative leadership, the persuasive variety is more effective. Persuasive leadership can inspire men to face dangers whch are far more immediate and grave than the punishment that can be inflicted by authority. It is only by persuasive leadership that the commander can influence those over whom he has no authority and on whom he is dependent for support.

b. The objective of leadership is to create and maintain a unit which loyally and willingly accomplishes assigned tasks. Leaders at all levels must know men as individuals, recognize their strengths and weaknesses, and integrate these men into a homogeneous group while still maintaining their individual integrity.

82. Individual

a. Man is the fundamental instrument of war. An understanding of his behavior patterns and how to influence them is, therefore, essential to successful command.

b. Fear, self-interest, and desire for recognition are three fundamental characteristics of man which are particularly important to the leader. The first is an obstacle; the other two may be either aids or obstacles to the achievement of the leader's aim.

83. Fear

Fear is the major disruptive influence in units when grave physical danger is present. Fear may numb the mind to the extent that it is incapable of employing even the most basic knowledge. It may cause active flight from danger or, occasionally, an aggressive reaction. If prolonged or severe, it may result, due to subconscious conversion, in disabling physical distress. Fear is fostered by the unknown, by lack of confidence, by inactivity, and by lack of group identification. Fear

is overcome by proper training to dispel the unknown and instill confidence, by physical activity such as talking, firing, movement, by other activity which occupies the mind, and by group identification.

84. Self-Interest

Man is prone by nature to subordinate the group interests and those of others to his own. Self-interest is accentuated by lack of group identification and lack of acceptance of group goals. The selfish interests of the individual are overcome by insuring that the individual is identified with the group and that he properly appreciates in group goals. The latter is most effective when group goals can be merged with those of the individual.

85. Recognition

a. Man has a fundamental desire to be recognized as an individual. The military service, because of its demand for conformity, tends to submerge the individual's identity. When the desire for recognition is directed into constructive channels, it is capable of overcoming fear and self-interest. When individual recognition is not extended, the desire for it may be reflected in surrender to fear or self-interest or may be manifested in other disruptive ways.

b. The desire for individual recognition is fulfilled by maintaining the dignity of the man, by preventing loss of identity of the individual within the group, by satisfying those individual interests not in conflict with those of the group, and by rewarding outstanding individual service to the group.

86. Group Identification (Esprit de Corps)

Group identification is an effective antidote to both fear and self-interest. It has its basis in pride in unit achievement and in mutual confidence. The individual achieves group identification when he accepts and is accepted by the group. Not until this time is group identification effective in overcoming fear and self-interest. For this reason, and others, replacements should not join units in the midst of combat.

87. Training

Training consists of the mental and physical conditioning of the soldier and the unit, and the inculcation of individual and group skills. Training instills confidence and pride in the individual and in his unit; both are essential to group identification. It dispels the unknown, the ally of fear, and merges the individual's goal with that of the group. Training provides the individual with a set of automatic reactions to given situations. Unit and individual confidence are enhanced when the benefits of training are made evident.

88. Units

Units are composed of individuals and develop characteristics and personalities of their own; thus they are subject generally to the same basic urges as individuals. Units normally reflect their leadership. Although internal cohesion for a time may be stronger than the effect of poor leadership, lack of confidence in the leader ultimately will be reflected strongly in the unit. There are four characteristics of a command which indicate the quality of its leadership. These are discipline, morale, *esprit de corps*, and proficiency.

89. Leadership in Battle

The true test of leadership occurs in combat. At the combined arms echelon, combat leadership is the motivating force that insures the collective action of units in the achievement of a common goal. Despite the separation of the combined arms commander from the individual soldier, he exercises personal leadership by frequent visits, by demonstrating his personal interests in the welfare of his men, and by extending individual recognition when the situation warrants. Because of his isolation the higher commander normally must exercise leadership through his staff and subordinates by establishing and enforcing leadership policies designed to foster combat effectiveness.

90. Leadership Qualifications

a. Troops are influenced by the example and conduct of their leaders. Mutual confidence and respect between the leader and his men are essential.

b. A good commander does not subject his troops to avoidable hardships or danger. He guards against dissipating their combat strength in inconsequential actions or harassing them through faulty administration. He keeps in close touch with all subordinate units by means of personal visits, observations, and reports. It is essential that he know from *personal contact* the mental, moral, and physical state of his troops, the conditions with which they are confronted, their accomplishments, their desires, and their needs. He takes the necessary action to provide the tactical and administrative support required.

c. A leader must know his job, possess will power, moral and physical courage, loyalty, self-confidence, initiative, resourcefulness, flexibility, force, and selflessness. Any show of indecision or unwillingness to share danger is fatal to leadership. On the other hand, a bold and determined leader will inspire his troops to accomplish difficult or seemingly impossible missions.

d. The commander should extend prompt recognition for services well done, and he should give encouragement in adversity. Considerate and loyal to those whom he commands, he must be loyal to those

who command him. He must be firm and impartial in his administration of justice.

e. A commander must be fair in all dealings with his men. His treatment of his troops must be impartial and free of favoritism. In the employment of units, tactical unity must be maintained wherever possible and missions must be assigned as equitably as the situation permits.

f. The first demand in war is decisive action. Commanders inspire confidence in subordinates by their decisive conduct and their ability to gain material advantage over the enemy. A reputation for success in a leader fosters morale.

g. The primary duty of the leader is the accomplishment of his assigned mission; everything else is subordinate.

91. Reference

For details on the techniques of leadership see FM's 22–10 and 22–100.

Section IV. ESTIMATE OF THE SITUATION

92. General

a. The commander's mission is the basis for his estimate of the situation. In making an estimate, the commander must analyze his mission, evaluate all available information, consider all possible courses of action, and reach a decision. The estimate is a continuing process. Changing conditions may call for a new decision at any time.

b. Timeliness of decision is the essence of command action. It requires a balance between the full use of time available for the collection and deliberate evaluation of essential information and the allowance of ample time for subsequent preparation and execution of plans.

93. Considerations Affecting the Decision

a. The commander's decision is always influenced by the characteristics of the area of operations and the relative combat power of opposing forces. Other factors are considered as appropriate.

b. The important factors involved in the evaluation of the characteristics of the area of operations are the terrain and the weather; any may include the political, economic, and sociological conditions. The applicability of these factors may vary with the level of command and the purpose of the estimate. The area of operations is studied in order to determine its influence on the projected operation. Since these factors usually cannot be manipulated, the commander determines how the area can best be used to assist him in the accomplishment of his mission, or how it can best be used to interfere with enemy action. Of these factors terrain is usually the most decisive.

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Proper use of terrain increases combat power and facilitates application of the principles of war. Therefore, commanders verify information of the terrain by personal reconnaissance whenever possible. Weather is studied to determine its influence on the terrain, weapons capabilities, and the capabilities of the opposing forces. Political, economic, and sociological conditions are evaluated to determine the degree of assistance or interference they will present to the projected operation.

c. When weighing the relative combat power of opposing forces, the commander considers their strength, composition, dispositions, training, morale, equipment, and administrative support. He considers the enemy characteristics pertaining to combat including enemy reactions, habits, peculiarities, and *weaknesses.* Relative combat power is dynamic and can be directly influenced by opposing commanders. It therefore must be analyzed by the commander in its potential relation to all other factors in order to arrive at realistic enemy capabilities and feasible courses of action for his own force. The commander then must analyze his own courses of action in the light of the enemy's ability to interfere with them to arrive at the most critical factors involved in the decision. The proper evaluation of these factors results in the selection by the commander of the best method of employing his forces in accomplishing his mission. For details see FM 101–5.

Section V. COMBAT ORDERS

94. Purpose

The commander's decision is translated into action by means of combat orders which convey the commander's intent and which give specific instructions that guide all elements of the command in the conduct of the operation. Combat orders are classified as to purpose, form, and content. They include directives, letters of instructions, operation orders, administrative orders, and standing operating procedures. In order to gain time and permit concurrent planning at all echelons, warning orders and fragmentary orders normally are used. Procedures which lend themselves to standardization without loss of effectiveness are incorporated into standing operating procedures and published as orders.

95. Preparation

Combat orders must be issued in time to permit succesive echelons to make their own reconnaissance and estimates, issue their orders, and prepare their troops for the operation. They must clearly and concisely express the intent of the commander. Combat orders should not unnecessarily curtail the initiative of subordinates but must give sufficient information for subordinates to act intelligently

in the absence of specific instructions. Clarity must not be sacrificed to brevity. For details, see FM 101–5.

Section VI. COMMAND POSTS

96. Location

Communications are essential to control; therefore, the command post must be located to facilitate communication with subordinate elements of the command. Normally, this condition will be satisfied at or near an existing communication center. The command post must be located sufficiently far forward to facilitate the frequent command and staff visits necessary in order that the commander may have personal knowledge of the situation and exercise his personal influence on the command. The command post of division and larger units should not be located so far forward that it is subject to threat of the immediate battle. In locating the command post, due regard also must be given to troop dispositions, type of tactical operation, adequate space, cover, concealment, and security.

97. Echelonment

The headquarters of large units may be divided into three command posts—tactical, main, and rear. For details see FM 101–5.

98. Communication with the Commander

The commander, accompanied by a small staff designated as the command group, frequently establishes a tactical command post to better observe and direct the action. In such cases, he maintains communication with the main command post. When visiting subordinate units he should always be accompanied by a member of his staff to record and transmit to the staff any decisions made, instructions issued, or knowledge gained during such visits.

99. Movement

a. Too frequent changes in location of the command post are to be avoided; on the other hand, unnecessary delay in moving the command post risks loss of control. Even when skillfully accomplished, a displacement causes a temporary reduction in staff efficiency and in the effectiveness of control of subordinate units. A new command post is opened only after communications are established at the new location.

b. A commander must keep higher, adjacent, and subordinate units informed of the location of his command post. He does this by announcing his axis of signal communications and times of opening and closing of the command post. He may designate the axis of signal communications and at times the location of command posts for sub-

ordinate units in order to insure an integrated signal communication system.

100. Security

Since the command post is the nerve center of the command and will be the objective of attack by any means available to the enemy, every active and passive measure to protect it must be employed. Passive measures are primarily those of concealment and include selection of suitable terrain; enforcement of camouflage discipline; use of guides rather than signs; rigid traffic control; location of parking areas, landing strips, and radios at a distance from the main installations of the command post site. Active measures include the physical protection afforded by organic or specifically designated defense troops.

Section VII. SIGNAL COMMUNICATION

101. General

A rapid and reliable system of signal communications is essential to the successful exercise of command. Such a system facilitates unity of effort by insuring prompt intercommunication among all elements of the command.

102. Responsibility

a. The commander is responsible for signal communications within his command, for its efficient operation as a part of the system of the next higher command, and for insuring that adequate means are provided for projected operations.

b. Higher units are responsible for establishing communications with subordinate units; supporting units with supported units; and, adjacent units from *left to right* or as specified by their common superior.

c. Communications between supported units and their fire support means are particularly important. Through their failure, the entire action may be endangered.

d. Each echelon, whether or not responsible for initial installation, makes every effort to reestablish communications when they are interrupted.

103. Means

The means of signal communication are wire, radio, messenger, visual, sound, pigeon, and dog. Complete dependence cannot be placed on any one means. The various means are employed so that they supplement each other to provide a system of maximum speed, flexibility, security, and reliability capable of integration with the

system of the next higher command. Within available means, alternate signal communication systems are established. This is particularly important when the enemy has an atomic, massed fire, or infiltration capability.

104. Employment

a. Wire. In relatively slow moving situations wire forms the basis for the signal communications system. Wire is capable of carrying a great volume of traffic comparatively secure from interception and interference. It requires longer to install than other means of communication. In moving situations a relatively simple wire net may be employed. As the situation becomes more nearly stabilized the wire net is increased and may be placed overhead or underground. Wire lines, laid on the ground, are highly susceptible to enemy fire and to the movement of friendly troops.

b. Radio. Radio is used to supplement incomplete or interrupted wire communications or as the principal means of communication in rapidly moving situations. It is easily installed and can carry a large volume of traffic. Its susceptibility to location, jamming, or interception by the enemy and to terrain and atmospheric conditions, as well as limitations on available frequencies, place restrictions on its use.

c. Messengers. Messengers are essential to a signal communications system. Messengers are used to transmit documents or other material which cannot be transmitted by other means; important messages, either oral or written; and to supplement or replace other means of communications. The efficiency of the messenger depends upon the individual and his mode of transport. He is vulnerable to enemy action.

d. Other. Visual means, sound, pigeon and other means are used to fill gaps in the basic system of communications. Every means is used within its capabilities to supplement the others or to meet special requirements.

105. Signal Communications in Joint Operations

The responsibility of commanders cited in paragraph 102*a* is particularly difficult to discharge in joint operations.

a. Special ground-to-ground and ground-to-air radio communications are provided in appropriate T/O & E's of Army units to facilitate air-ground operations. Joint planning and coordination are essential for effective deployment of these facilities and to insure that proper crystals and frequencies are being utilized.

b. Early establishment of signal communications in amphibious and airborne operations is of paramount importance. This requires combat loading of communications personnel with their equipment and

coordination of signal procedures for Army, Air, and Navy Forces prior to embarkation or enplaning.

106. Security and Discipline

a. Communication security is essential to the application of the principles of *security* and *surprise.* Enemy interception of all radio messages must be presumed. When prompt action is called for, the commander must decide whether the urgency of sending a message in the clear outweighs the value of the information contained therein to the enemy. Radio transmission of messages in the clear is justified only in situations when the time available to the enemy is insufficient for exploitation of the information contained in the message.

b. Signal discipline insures communication security and the maximum use of the communication system. Rules governing communication security do not, in themselves, guarantee security but are a means to an end. Signal discipline is reflected in the habitual employment of prescribed communication procedures and strict adherence to the rules of communication security. The commander is responsible for communication security and must insure that personnel of his command receive proper communications training and that signal discipline is maintained at all times.

Section VIII. ELECTRONIC WARFARE

107. General

The increasingly widespread use of and reliance upon electronic devices require the commander to focus his attention on this new aid to warfare. The electronic aspects of warfare include—

a. The collection of enemy electronic signal information.

b. The application of the tactics and techniques of electronic countermeasures and electronic deception.

c. The development and use of effective electronic countermeasures.

d. The coordination of these operations with other electronic activities.

e. The coordination of these operations with tactical operations to achieve surprise, mass, and security.

108. Electronics in Warfare

The organized, planned use of electronic warfare makes it necessary that ground commanders become familiar with the tactical capabilities and uses of this comparatively new method. The employment of electronic warfare includes both offensive and defensive applications. The commander is responsible for the offensive employment of electronic warfare and, at the same time, for the protection of his troops and equipment against enemy use of electronic war-

fare. Enemy employment of electronic warfare against communications may severely restrict the commander's capability of controlling the operations of his forces. The art of electronic warfare can be expected to receive increased attention by all commanders in the future as the employment, reliance upon, and complexity of electronic warfare increases. See AR 105–87 and SR 10–380–1.

Section IX. COMBAT DECEPTION

109. General

a. Combat deception is a military operation designed to disguise our dispositions, capabilities, and intentions and to mislead the enemy so that he will react in a manner to his disadvantage and our advantage. The following are included in the category of combat deception operations: feints, ruses, demonstrations, diversions, and holding attacks.

b. It is imperative that commanders constantly realize the importance of combat deception and that they train their troops and staff in the techniques and planning for combat deception.

c. Every combat deception plan must be approved by the next higher commander who will effect the necessary coordination to insure that the plan will not compromise other deception plans or operations plans of higher headquarters or adjacent units. Commanders coordinate and are responsible for the combat deception operations of their commands.

110. Fundamentals of Combat Deception

The guiding principles for formulation of a combat deception plan parallel and are closely allied to the principles of any tactical plan. The following basic factors must be considered:

a. The combat deception plan must support and be based upon the main tactical plan. Tactical plans are not based upon deception plans. The employment of the deception forces must be coordinated with that of the real operation force so that the operations of the two present the desired deception effect.

b. The combat deception plan, if successful, must further the real plan and if unsuccessful must not jeopardize the real plan. Any deception plan contains a degree of calculated risk to the real plan. This degree of risk must be evaluated and accepted when the deception plan is adopted. An alternative real plan is sometimes a good deception plan.

c. A combat deception plan must be reasonably certain of causing the enemy to discard certain capabilities which are unfavorable to the success of our plan.

d. Deception may produce a surprise reaction contrary to the planner's expectations. The planner must retain sufficient flexibility to exploit unexpected successes achieved as a result of the deception plan.

e. Combat deception is a continuing action carried out by all echelons of command in activities such as cover and concealment, individual combat, use of dummy positions and installations, and decoys. Combat deception plans normally are executed by tactical troops using field expedients and organic equipment.

f. Deception is effective only for a limited period of time. Accurate estimation of the probable duration of the effectiveness of the deception requires a knowledge of the enemy's psychology and intelligence capabilities. The means selected for the deception must be carefully adapted to the proposed duration of its effect. Any excess in deception measures becomes suspect.

g. Any deception operation must be supported by and coordinated with intelligence countermeasures to conceal our activities from the enemy.

h. Enemy intelligence must be given the opportunities and time to develop the deception picture which has been planned. Time must be allowed for the enemy to commit his troops or reserve in the desired direction.

i. The method or means of deception should be constantly varied. The repeated employment of a particular method or means will quickly terminate its usefulness.

j. A deception plan must be executed in a realistic and natural manner and must fit logically into the overall situation. Crude and conspicuous methods of deception are quickly exposed. Good deception costs something. The expenditure of the means of deception must be proportionate to the purpose of the deception.

111. Security

a. Because of the sensitive nature of combat deception, the knowledge of current deception plans and operations must be limited to those whose duties require it. Deception is only as good as its security. If the strictest security is not observed, all deception projects, even the smallest, are condemned to failure from the very start. Caution must be exercised in mentioning intended deceptions in operations orders.

b. As a rule, the intention to deceive the enemy also should be concealed from one's own side. Deceiving one's own troops is very often necessary for effective deception. However, to inform a commander who is to execute deceptive operations may facilitate a more efficient operation. Special thought must be given to deciding the extent to which a deception of those not informed of the plan can be justified in

the interests of the deception operation. The need-to-know basis for dissemination of deceptive plans must be emphasized.

c. Classification of information will be in accordance with AR 380–5. Caution will be exercised in determining what matter can be unclassified, and in doubtful cases the matter will be referred to higher authority.

d. In order to assist security, Department of the Army policy provides that there will be no public discussion or public release of information concerning deception.

112. Planning

a. Planning a deception to conceal or support the real operation should be habitual.

b. Planning for deception is accomplished concurrently with planning for actual operations. The deception plan is based upon and closely linked to the main plan which it supports. Planning for deception must consider the effect the deception will have on plans of adjacent units and higher headquarters. Deception requires detailed preparation and must be closely coordinated and supervised by one responsible agency.

c. The following definitions apply:

(1) *Deception story.* A concise statement of what the commander wishes the enemy to believe.

(2) *Deception objective.* The desired enemy reaction to the deception plan.

(3) *Deception plan.* A plan employed to support, by deception, the overall operation.

113. Means

a. The principal means used for implementing combat deception operations are those organic to a command. Commanders should make maximum use of these means to implement feints, demonstrations, ruses, and other deceptions. Imagination, field expedients, and the ingenuity and resourcefulness of the American soldier furnish a large reservoir of means available to every commander. Such original activities are most difficult for the enemy to detect, and often bring results more valuable than stereotyped measures. All measures which will cause the enemy to react as we wish should be explored and the best selected for exploitation. Measures for implementation are not an end result in themselves; the enemy reaction is the desired objective.

b. Engineer and Signal Corps deception units with special equipment may be made available for large scale operations.

Section X. MASS DESTRUCTION WEAPONS

114. General

Mass destruction weapons are defined as those atomic, chemical, biological, radiological (CBR), or other weapons which may be used against concentrations of personnel and/or materiel to accomplish large scale devastation or neutralization. The commander must consider his own and the enemy's capabilities of using mass destruction weapons. His estimates, plans, directives, orders, and standing operating procedures will reflect these considerations. The commander must weigh all possible implications as they may affect his own and enemy operations.

115. Atomic Weapons

Atomic weapons provide a commander with the most powerful destructive force yet known to influence operations. The proper integration of atomic firepower and the maneuver of the force is of utmost importance. The commander may consider atomic fires as additional firepower of large magnitude to complement other available fire support for maneuvering forces, or he may fit his maneuver plan to the use of atomic fires. When the commander uses atomic weapons he should be prepared to rapidly exploit the advantages gained; he should also be prepared for rapid exploitation by the enemy following enemy use of the weapon. For additional details on the tactical use and implications of atomic weapons see FM 100–31 and subsequent chapters in this manual.

116. CBR

Weapons employing CBR agents may be used both offensively and defensively. CBR agents lend themselves readily to employment in conjunction with barrier plans and denial operations and the tactical use of atomic weapons. They provide a commander with the means to facilitate denial or restriction of areas by contamination, canalization of enemy maneuver, destruction or neutralization of enemy forces, and contamination of field fortifications to render them untenable. For additional details on the tactical use and implications of CBR agents see FM's 3–5, 21–40, and 21–45 and subsequent chapters in this manual.

Section XI. PSYCHOLOGICAL WARFARE

117. General

Psychological warfare is a supporting military weapon, designed to influence the minds of enemy troops and of enemy, neutral or friendly foreign populations. The effective use of psychological

warfare will lessen the enemy's will to resist, create dissension and defections in his ranks, and reduce or eliminate the support of civilian populations. It can be used as a weapon directed against the moral fiber of the enemy, just as conventional weapons are employed to reduce or destroy the enemy's physical capabilities and will to resist. It is a command responsibility.

118. Objectives

a. The initial objective of psychological warfare is to reduce the combat efficiency of the enemy by action directed against his will to resist and by creating confusion, dissension, and defections in his ranks. Such action consists of exploitation of all political, economic, social, and moral vulnerabilities of the enemy.

b. A related objective is to facilitate reorganization and control of occupied or liberated areas by the use of persuasion, education, and orientation in conjunction with civil affairs/military government operations.

c. The ultimate objective is to produce cumulative effects upon the opinions, emotions, attitudes, and behavior of the target audiences that will assist in the defeat of the enemy.

119. Results

The attainment of the above objectives will result in increased effectiveness of the commander's force. In the present era of ideological struggle, psychological warfare is a cheap weapon and is limited only by the imagination of the commander. It must be integrated into conventional warfare at all stages.

Section XII. BARRIER PLANS AND DENIAL OPERATIONS

120. General

A barrier plan is that part of an operation plan or order which is concerned with the employment of obstacles to channel, direct, restrict, delay, or stop the movement of an opposing force. A denial operation is one that has as its fundamental purpose preventing or hindering the enemy occupation of and/or benefit from areas of items of military or strategic value by removal, destruction, contamination, and/or erection of obstructions.

121. Barriers

a. Responsibility and Authority. The formulation of barrier plans and the employment of barriers as components of tactical operations are command responsibilities. All commanders will utilize natural obstacles in the organization of the ground. In addition, these may be augmented by artificial obstacles of all types, within the area of

the commander's responsibility to the extent of his authority and capability to employ these artificial measures, providing no additional restrictions have been imposed by higher authority. In most cases, the development of extensive systems of barriers of major tactical significance will be directed by Corps, Army, or higher commanders. They also may be directed by communications zone commanders. The tremendous logistic requirements of barrier employment may dictate special arrangements with the communications zone for support in material, equipment, men, transportation, storage, and other assistance to the combat zone.

b. Use. Barriers are used in offensive operations to contribute to flank security, to impede against counterattack, to provide additional protection for a section of the front which is not strongly manned, and to assist in enemy entrapment. They are used in defensive operations to delay initial enemy advance toward the front or flanks, to delay movements of penetrating or enveloping forces, to hamper enemy pursuit, and to canalize enemy penetrations into desired avenues of approach (positions) where they can be defeated or destroyed.

c. Construction. Construction of obstacles for closein defense is the responsibility of the local unit commander. Generally, each tactical unit is responsible for construction of that part of a barrier which lies within its area. Engineer assistance in the form of advice and technical supervision normally is furnished. Engineers may be responsible for the physical location and construction of obstacles which require special skill and equipment.

d. Planning Considerations.

(1) *General.* The employment of barriers is a vital element of tactical operations which must be integrated with the overall scheme of maneuver and fire support. In their employment the usual factors of weather, terrain, and the composition, dispositions, and capabilities of both enemy and friendly forces should be considered.

(2) *Location of barriers.* Barriers should be located to take maximum advantage of natural obstacles and other terrain features and should impede enemy movement along favorable avenues of approach, divert enemy movement along routes of the commander's own choosing, compel the enemy to concentrate, or compel him to disperse. Artificial obstacles may be employed to extend or to reinforce natural obstacles. Limited physical capabilities may preclude coverage of an entire barrier by fire; in this case, provision for constant observation and adequate communications will permit rapid shifting of mobile forces or fire support to cover threatened areas. Care must be taken to integrate planning

to insure that obstacle locations do not interfere with proposed movements of friendly forces or with counterattack plans. Additional considerations for effective location are—

(*a*) Obstacles preferably are placed under friendly observation, but defiladed from enemy observation.

(*b*) Obstacles are most effective when covered by fire, preferably small arms fire.

(*c*) The amount of construction, destruction, or improvement of obstacles is dependent upon the availability of troop and indigenous labor, equipment, material, time, and future plans.

(3) *Depth.* Since any obstacle eventually can be surmounted, it is necessary that barriers be created in depth. Successive barriers slow penetrations, provide time for counterattacking forces to meet the threat, and force the enemy to expend strength and time at each barrier. It may be desirable that a barrier be as difficult to bypass as it is to breach, but not necessarily so. In the case of a barrier to divert or canalize, the intent is to force the enemy to bypass.

(4) *Labor.* The tremendous requirements for labor in barrier construction demand maximum utilization of indigenous labor to supplement troop effort. Civil affairs-military government policy, security, availability of laborers and supervisory personnel, nature of construction tasks, and time will influence the degree of this utilization.

e. Barrier Instructions. Instructions for the planning and employment of barriers normally are issued as an annex (barrier plan) to the operation plan (or order). It is the responsibility of the higher headquarters to determine restrictions on types of obstacles, restrictions on employment of barriers, and gaps to be left as dictated by plans for future operations, and to advise subordinate headquarters of these restrictions. Commanders are expected to make the fullest use of barriers at all levels unless restricted by specific order of a higher headquarters. Locations planned and actually sited by local commanders are reported to higher headquarters. Pertinent barrier instructions below division level normally are issued as fragmentary orders, overlays, or sketches.

122. Denial Operations

a. General. A theater commander may employ denial operations in support of both offensive and defensive operations. Depending on the applicable policy, a denial operation may vary in scope from "scorched earth" to effecting a temporary limitation upon enemy use of an area or facility. Execution of denial operations provides an opportunity for imaginative use of all forms of demolitions and

contaminants. The far-reaching effects and short-term benefits of such operations must be carefully weighed in the light of higher echelon, theater, and national objectives.

b. Responsibility and Authority. Planning and execution of a denial operation are command responsibilities. Subject to limitations of directives of higher authority, a theater commander may conduct denial operations as a part of his overall campaign. The theater commander will establish the policy to govern denial operations. Planning and execution of appropriate general tasks normally will be delegated to theater army, theater navy, or theater air force commanders.

c. Planning. Like barrier plans, denial operations may be both a tactical and engineering task. The employment of denial operations is considered in all planning. Among factors to be considered are—

(1) Mission.
(2) Overall concept of operations, to include future operations.
(3) Time available.
(4) Enemy capabilities.
(5) Capabilities of friendly forces.
(6) Use of indigenous personnel.
(7) Relation to other operational plans; e. g., barriers.
(8) Timing of execution.
(9) Protection of executing force.
(10) Logistical support.
(11) Effect on indigenous population.
(12) Effect on actual or potential enemies.
(13) Alternate plans.

d. Implementation. Responsibility for preparation and execution of specific portions of the denial plan normally will be delegated through the command channels of theater army (navy and air) forces to such levels as force capabilities permit. For the execution of certain denial operations specially trained teams of civilian or military specialists may be required. These specialists may operate directly under theater control or be attached to subordinate echelons. Denial operations usually are employed to obtain maximum delay and expenditure of enemy effort through the efficient use of friendly manpower, organization, and equipment to result in economy of force. Denial operations are most effective when properly coordinated with other combat operations.

e. Denial Instructions. Instructions on denial operations are based on the theater denial policy. From theater level downward they will be a part of an operation plan (letter of instruction). At army level and below, all suitable portions of such instructions are integrated with and normally issued as part of the barrier plan.

Section XIII. COMMAND IN COMBAT

123. General

In the preceding sections of this chapter are set forth the principles and basic considerations which guide the commander in the conduct of military operations. The remainder of this chapter contains guidance for his personal conduct in combat.

124. Prior to Action

After providing for the issuance of orders, he visits his subordinate commanders and his troops in order to inspire confidence, to assure himself that his orders are understood, and that adequate preparations for action are under way. He then places himself where he can best influence the initial phases of the action.

125. During Action

Once the action has begun, a commander influences its course by his personal leadership, the maneuver of supporting fires, the maneuver of subordinate elements, particularly his reserve; and by the allocation of combat means and administrative support. Although the command post is the nerve center of the command, available communications permit the commander to exercise control from localities of his own choosing. He thus is able to gain personal information of the situation, to influence the action by leadership, and to establish closer control at the point of decision. It is particularly important that the commander's presence be felt at the decisive point of the battle. However, he must not become so involved in local actions as to lose sight of the conduct of the overall mission. The commander in modern combat must be constantly alert and prepared to react promptly to changes in enemy tactics, methods, and means which may materially alter the course of battle. He must be equally alert to avoid stereotyped actions which enable the enemy to predict the behavior of his forces. As a personnel conservation measure and to improve combat effectiveness the commander must provide temporary relief from sustained combat for units and individuals.

126. After Action

The commander's principal tasks after action are the evaluation of the action with a view to the incorporation in his command of the lessons learned, and the readying of the command for future action. He implements the planned measures for replacement of personnel and equipment and for replenishment of supplies. He takes appropriate steps to provide for the mental and physical rehabilitation of units and for the maintenance of their equipment. He insures that

replacement personnel are indoctrinated and that retraining to weld the unit into an effective fighting team is accomplished. Under no circumstances should individual replacements be committed directly to close combat.

CHAPTER 5

COMBAT INTELLIGENCE, COUNTERINTELLIGENCE, RECONNAISSANCE, AND COUNTERRECONNAISSANCE

Section I. COMBAT INTELLIGENCE

127. General

Combat intelligence provides knowledge of the enemy and the area of operations vital to the successful conduct of operations. It reduces the unknown factors and, therefore, is of great significance to the commander in his estimate of the situation. By providing logical conclusions concerning terrain, weather, enemy capabilities and weaknesses, and other factors, it permits the determination of their probable effect on the mission and courses of action contemplated and assists in applying adequate counterintelligence and security measures.

a. Combat intelligence should be timely and complete. Timeliness requires rapid and accurate measures for collecting and processing information and for disseminating the resultant intelligence; this is vital to the effective employment of atomic weapons. To insure completeness, all available sources are exploited and every agency is employed to the limit of its capabilities.

b. The production of combat intelligence is based upon a cycle of four actions—direction, collection, processing, and use. This cycle is systematic, dynamic, and ceaseless. These actions are discussed in paragraphs 129 through 132.

c. The basic methods for producing combat intelligence apply to all types of operations. However, the use of atomic weapons and certain special operations, such as amphibious or airborne, require particular emphasis on certain aspects of intelligence production, notably collection.

d. For details of combat intelligence, see FM's of the 30 series and FM 101–5.

128. Sources and Agencies

A source is the actual origin of information, whereas an agency is a unit or an individual that collects and reports information.

a. In combat, the best sources of information of the enemy and the area of operations are the enemy, the inhabitants, terrain, and weather themselves. Hence, the collection effort primarily is directed toward these sources. However, besides these direct sources, there are certain

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derived sources of information such as order of battle books, strategic studies, and terrain studies.

b. Collecting agencies exploit sources by research, observation, or interrogation. In general, agencies are of two types—those that collect information as their primary mission and those that collect information incidental to, or in furtherance of, their primary mission. However, all agencies are employed, within their capabilities and limitations, in an integrated effort to collect and report all possible information. With the advent of mass destruction weapons, rapid collection of accurate information by all agencies, particularly air and ground reconnaissance agencies, is most important.

129. Direction of the Collection Effort

Direction of the collection effort is essential to production of combat intelligence. It consists, first, of determining what information is to be collected and who is to collect it. The necessary specific orders and requests then are issued and the collection effort supervised. The commander has a personal role in direction of the collection effort. He personally announces essential elements of information (EEI) in order to focus efforts of collection agencies on that specific, high-priority intelligence he needs to make a decision, prepare a plan, conduct operations, and avoid surprise.

a. Essential elements of information are broadly stated questions dealing with intelligence the commander requires to accomplish his mission. They constitute the basis for direction of the collection effort. In the collection plan the EEI are analyzed into positive or negative indications of enemy activity or specific conditions of terrain or weather. Based upon this analysis, reconnaissance and observation missions are assigned to collecting agencies.

b. The importance of potential atomic targets requires that direction of this aspect of the collection effort be centralized at the echelon controlling the atomic weapon to insure integration of effort and aid in expediting collection, processing, and use of the information.

130. Collection of Information

Collection of information is the systematic exploitation of sources by collecting agencies and the delivery of information thus obtained to proper intelligence agencies. It is directed by specific orders and requests and by announced essential elements of information. It is guided, but not limited, by the essential elements of information. *All information* must be reported, since seemingly insignificant information may be of vital importance when considered in conjunction with other items.

131. Processing of Information

a. Information is of no significant value until it has been processed into intelligence. This processing consists of recording information for ease of comparison and study, evaluating it to determine its pertinence, credibility, and accuracy, and *interpreting* it to determine its significance. Processing of information must be rapid, methodical, and logical in order to produce timely intelligence.

b. There must be a balance between speed and thoroughness of processing; rapidity may outweigh thoroughness in some instances. In other cases, the potential of the item may be such that the utmost precision and care must be employed in processing it. In large headquarters, recording is usually the first step to facilitate study and comparison of the mass of related items received; in divison and lower headquarters, recording may be secondary to the need for rapidity of evaluation, interpretation, and dissemination.

132. Use of Intelligence

The primary use of intelligence is in its integration by the commander into his estimate of the situation; the secondary use is its employment by intelligence personnel, all other elements of the command, and higher and adjacent headquarters.

a. Intelligence for the commander's use may be presented to him piecemeal or in an intelligence estimate. For details of the intelligence estimate see FM 30–5 and FM 101–5.

b. Intelligence is used by commanders and intelligence personnel to evaluate and interpret new information.

c. The value of intelligence depends upon its timely dissemination to higher, lower, and adjacent units in usable form. Intelligence normally is disseminated by messages, conference, or intelligence documents. Chief among the latter are intelligence estimates, periodic intelligence reports, and intelligence summaries. It is particularly important to rapidly disseminate intelligence to elements of the command in contact, or soon to be in contact with the enemy.

133. Training

Reports from the frontline soldier are the foundation of combat intelligence. These reports are limited only by the soldier's ability to *see*, *think*, *remember*, and *transmit*. Each soldier is a potential information collecting agent and must be trained in collecting and reporting information. Appropriate intelligence training must be given to *all* military personnel. Training in intelligence must not be restricted to personnel assigned to the intelligence sections of various headquarters or to other intelligence specialists.

Section II. COUNTERINTELLIGENCE

134. General

a. Counterintelligence is that aspect of military intelligence which deals with the destruction or neutralization of the effectiveness of hostile espionage, sabotage, and subversive activities. It is an inseparable part of both combat and strategic intelligence and a primary requisite for application of the principles of surprise and security. Responsibility for counterintelligence, while primarily that of commanders and certain specialized agencies, such as the Counterintelligence Corps, is none the less a charge of everyone in the military service. Counterintelligence, to be effective, must be thorough. Every military individual or agency must be continually conscious of security. The measures for executing counterintelligence operations fall into five categories: "Military Security"; "Civil Security"; "Port, Frontier, and Travel Security"; "Censorship"; and "Special Operations". Military Security, Civil Security, and Censorship are particularly applicable to Combat Zone operations.

b. The details of counterintelligence, special techniques and measures, training, and regulations for safeguarding security information are found in FM's and TM's of the 30 series and AR's and SR's of the 380 series.

135. Military Security

Military security operations comprise those counterintelligence measures within or directly pertaining to the armed forces and to specific military operations. They are designed to prevent disclosure of information to the enemy and may include deceptive measures calculated to deceive enemy intelligence agencies. Disclosure of information is prevented by such measures as counterreconnaissance, concealment, security of troop movements, and avoidance of fixed routines or procedures in the conduct of operations. Other essential measures include security of classified documents and materiel, communication security, military censorship, control of accredited correspondents, counterespionage, and countersubversion within the command.

136. Civil Security

Civil security encompasses counterintelligence measures affecting nonmilitary nationals of belligerent and nonbelligerent states who are permanently or temporarily under military jurisdiction. In the combat zone, civil security measures are primarily directed toward assisting combat operations. Effective control of the civil population is important and is accomplished by registration, control of circulation, and control of means of communication.

137. Censorship

Censorship is surveillance over communications in order to prevent information of military value from reaching the enemy. It pertains to both Military and Civil Security Operations and involves the systematic examination of private mail, news dispatches, motion pictures, photographs, and the monitoring of radio and television broadcasts, and other communications media. Censoring of news material is a particularly important and especially delicate task. News is censored with due regard for public support and benefits to troop morale and unit esprit de corps.

138. Training

Although there are special agencies organized to perform counterintelligence functions, *all* personnel must be thoroughly trained in the accomplishment of measures which are the responsibility of individuals. Particular stress is placed upon tactical measures and the fact that security information will not be discussed except in line of duty and then only with persons who have been properly cleared for access to and require the information.

Section III. RECONNAISSANCE AND COUNTERRECONNAISSANCE

139. General

a. Reconnaissance is directed effort in the field to collect information of the enemy and the area of operations. Combat reconnaissance seeks to produce combat intelligence of the enemy and the area of operations preliminary to and during combat. It is classified as distant, close, and battle, depending upon its purpose and the range or conditions under which it is conducted. For the combined arms commander, combat reconnaissance is performed principally by Army and Air Force agencies; although, for amphibious operations, pre-landing reconnaissance is also executed by Naval agencies. When the population of an area occupied by the enemy will collaborate it should be employed to systematically collect and transmit enemy information.

b. Counterreconnaissance is active effort to neutralize enemy reconnaissance. It seeks to protect a command from observation and other hostile reconnaissance measures and is executed by establishing a defensive screen, an offensive screen, or a combination of both.

140. Reconnaissance and Counterreconnaissance Agencies

a. All units have reconnaissance and counterreconnaissance responsibilities. Ground reconnaissance agencies consist of personnel manning observation posts; reconnaissance patrols and parties; communications reconnaissance agencies; and units specially organized or

designed for reconnaissance. Among the units specially organized for reconnaissance are Armored cavalry regiments, reconnaissance battalions, companies, and platoons, trained and equipped to perform reconnaissance and counterreconnaissance. Communications reconnaissance agencies are trained and equipped to intercept and analyze enemy radio traffic. In most cases, the same agencies executing reconnaissance missions may also be employed in counterreconnaissance; however, an agency should be given only one primary mission, performing functions under the other mission only as a secondary matter.

b. (1) Air reconnaissance is the obtaining of military information by visual, electronic, and photographic means from aircraft. It is conducted primarily by the reconnaissance wings of the tactical air forces. Naval air reconnaissance elements, when available, function in a role similar to that of tactical air force reconnaissance wings. The commander requests air reconnaissance to assist him in the accomplishment of his mission and makes maximum use of that available to them. He insures that all information obtained by aircraft, regardless of their primary mission, is promptly reported to him and to all interested agencies. He further insures the procedures for requesting, obtaining, reporting, and processing information are systematic and rapid. Of the several types of aerial reconnaissance, those of primary interest to the Army are visual (including artillery adjustment) and photographic reconnaissance. Organic Army aviation supplements the photographic reconnaissance of Air Force units in addition to performing reconnaissance missions for other agencies which serve to complement and augment their capabilities. For details concerning air reconnaissance see FM's 30–5 and 30–6 and joint Army and Air Force publications.

(2) Although their mission is primarily one of reconnaissance, air reconnaissance agencies assist in counterreconnaissance by the detection and reporting of hostile reconnaissance elements. Combat aviation also assists in counterreconnaissance by destroying hostile reconnaissance aviation. Organic army aviation is especially valuable for counterreconnaissance since it is capable not only of detecting hostile reconnaissance elements but also of bringing immediate fire of supporting weapons upon them.

141. Reconnaissance Operations

a. The methods of conducting reconnaissance operations vary with the situation and conditions in the area and with the assigned missions, size, type, and composition of reconnaissance units. Ground combat

reconnaissance is performed in conformance with four basic fundamentals—

(1) Gain contact as soon as possible and maintain it aggressively and continuously.
(2) Maneuver freely in conformity with operations.
(3) Secure information by stealth when possible, but fight when necessary in order to gain the information.
(4) Report all items of information, even if negative or seemingly unimportant, as soon as possible.

b. Ground reconnaissance is characterized by centralized direction and decentralized operations. Centralized direction by the senior commander insures the most economical employment of reconnaissance agencies, the coordination of reconnaissance effort, and that the interests of the command as a whole are served. Ground reconnaissance is conducted *continuously* to the front, flanks and, when necessary, to the rear. It must be based on all information already available from previous sources and/or missions. It alone can make positive enemy identifications and can determine whether terrain is occupied or unoccupied by the enemy. In conducting reconnaissance to the front, the commander may increase its efficiency and extend its range by establishing patrol bases forward of his main forces or by maintaining strong, mobile units forward to support his reconnaissance elements. Either method of operation permits aggressive action and freedom of movement by reconnaissance elements. Flank reconnaissance may be conducted by the same methods. Subordinate commanders adapt their operations to the means available and the type of reconnaissance action required.

(1) Infantry, artillery, armor, and engineer reconnaissance elements perform close and battle reconnaissance; armor reconnaissance units are additionally suited for distant reconnaissance.
(2) Although most ground reconnaissance is performed by stealth, there are situations in which it may be necessary to perform reconnaissance by fire or reconnaissance in force to obtain the desired information. Reconnaissance by fire is used against suspected enemy positions to destroy camouflage or cause the hostile forces to reveal themselves by movement or by returning the fire. Reconnaissance in force is an attack conducted by all or a sizeable part of a force for the purpose of discovering and testing the enemy's strength, composition, and dispositions. The commander ordering such an operation must be ready to exploit any unexpected success. He must also be prepared for the possibility that his action may disclose his ultimate intentions or provoke a general engagement.

c. Air reconnaissance covers distant or close areas that cannot be reached readily by ground reconnaissance. Air reconnaissance supplements and extends that performed by ground agencies. Photo or electronic reconnaissance operations may be performed by day or night when weather conditions permit or at any time when suitable electronic navigational aids are available. Visual reconnaissance is most effective during daylight; it is limited by darkness, weather, and the hgh speed of modern aircraft. All types of air reconnaissance may be limited by hostile action.

(1) Commanders of Army forces are charged with planning for and submitting Army requirements for tactical air reconnaissance and stating the priority of missions. Their plans insure continual observation of critical areas and thorough integration of ground and air reconnaissance means.

(2) Visual air reconnaissance is employed on fleeting targets or those requiring rapid reporting but little detail. Air photo reconnaissance is employed to provide basic and frontline cover and to gain detailed information on specific targets. Electronic reconnaissance is used for the detection and location of enemy activity, including hostile electronic devices, and for such other purposes as available means permit.

142. Counterreconnaissance Operations

Counterreconnaissance operations are essentially security operations. They are conducted by all units at all times in both the interest of the unit and of the command as a whole. Units execute ground counterreconnaissance operations as appropriate to the situation; the operations are either offensive or defensive in nature. Counterreconnaissance operations are based upon fundamentals different from those of reconnaissance; they are—

a. Operations are focused on and adjusted to the friendly forces being screened.

b. Hostile reconnaissance elements are destroyed or neutralized by combat.

c. Screening forces are echeloned in depth to provide mutual support and to prevent any deep penetration by enemy reconnaissance elements into the area being screened.

CHAPTER 6

SECURITY

Section I. GENERAL

143. Definition and Purpose

Security embraces all measures taken by a command to protect itself from espionage, observation, sabotage, annoyance, or surprise by an enemy. Its purpose is to preserve secrecy and to gain and maintain freedom of action.

144. Fundamentals

Security is achieved by the effective application of the following fundamentals:

a. Provision must be made for the detection of a threat, for sufficient time to react to the threat, and, finally, for the avoidance, neutralization, or destruction of the threat.

b. Every unit is responsible for its own security despite any security provided by other units.

c. Security is an integral part of operations.

d. Effective intelligence contributes to security by preventing surprise.

e. Effective counterintelligence contributes to security by insuring secrecy.

f. Effective counterreconnaissance contributes to security by preventing observation.

g. Security is dependent upon individual and unit training; security consciousness particularly the dissemination of information on a *need-to-know* and *timely* basis; and continuous security discipline.

h. A favorable attitude towards our forces on the part of the civil population facilitates security.

i. To provide adequate time to react, the size, composition, and location of security forces must be commensurate with the threat.

j. Security measures must not unnecessarily divert forces or effort from the accomplishment of the mission.

145. Planning

Security planning is an integral part of operational planning. It is based on a careful estimate of the military situation, and requires consideration also of the political, sociological, and economic aspects.

Requirements may influence operational plans; conversely, security must take advantage of the disposition, distribution, and use of combat and service units. Plans include provisions for early detection and warning of the principal threats to the command. They integrate the plans of subordinate units and are coordinated with and take advantage of the operations and security measures of other units including those of other Services. Emergency plans provide for the use of all available forces including local populations.

Section II. SECURITY THREATS

146. General

Threats to the security of a command must be evaluated to determine their relative importance. With the development and improvement of material and techniques, the scope of war has broadened until both combat and service units face a wide variety of possible threats. The enemy characteristics, capabilities, and weaknesses must be constantly studied to determine the pattern for security and the emphasis to be placed on its various aspects. The enemy can logically be expected to carry out a combination of the various types of security threats during any operation.

147. Threats

The following are the threats to the security of a command:

a. Ground action to include reconnaissance, fire, attack by ground forces, infiltration, guerillas, partisans, and airborne forces.

b. Air action, to include reconnaissance, bombing, strafing, and the transportation of airborne forces.

c. Waterborne action, to include amphibious assault, raids, and bombardment.

d. Covert action, to include espionage, sabotage, and subversion.

e. Attack by atomic, biological, chemical, and radiological weapons delivered by clandestine, air, water, or ground means.

f. Attack by new weapons, tactics, or techniques.

g. Attacks on the minds, emotions, and attitudes of the troops by psychological warfare.

Section III. SECURITY MEASURES

148. General

Security measures are either active or passive in nature. Certain security measures are applicable to more than one type of threat; others are designed to afford protection against a specific type of threat. The best security is provided by a combination of active and passive measures.

149. Common Measures

The common measures which are applicable to all security threats are—

a. Continuous Reconnaissance and Counterreconnaissance. Continuous reconnaissance is conducted by all elements of the command in order to detect threats to security. Simultaneously, counterreconnaissance is executed to block hostile efforts to obtain information of the command. The size and type of the reconnaissance and counterreconnaissance effort depend upon the capabilities of the unit and the nature of the threat. For details see chapter 5.

b. Adequate Warning. Adequate warning is essential to timely reaction. Depending on the situation, the following forces, agencies, and devices may be used to provide warning to a command: advance, flank, and rear guards; covering forces; outposts; patrols; sentinels; interior guard; intelligence and counterintelligence agencies; and mechanical, electronic, aural, or visual warning means. Commensurate with the threat, units utilize such measures as are necessary and practicable considering their strength, weapons and equipment, situation, and mission.

c. Effective Communications. Effective communications are essential to adequate warning, control of security activities, and timely reaction by the command. Multiple and emergency means are established to insure reliable communications in the event of failure of the primary system as a result of malfunction, destruction of facilities, or enemy interference.

d. Timely Reaction. The measures above are of no avail if elements of the command are not prepared to react. In addition to the security forces, the command is prepared at all times to react to a security threat. A serious threat may require the efforts of the entire command with consequent temporary abandonment of the mission. The reaction may take the form of avoidance, neutralization, or destruction of the threat. The measure which is most likely to succeed, which is most economical, and which interferes least with the primary mission, is adopted. Readiness of weapons is a requirement for all types of units. Service units must be prepared to react immediately against security threats while conducting their service tasks.

e. Additional Measures. Additional measures are—

(1) Deceptive measures including cover, concealment, camouflage, and dispersion.
(2) Fortifications, obstacles, mines, and barriers.
(3) Special control measures for military and civilian personnel and activities.

150. Measures Against Ground Action

See paragraph 147 for threats from ground action. The first essential is security against ground action is the proper use of terrain.

a. Security from reconnaissance is afforded by counterreconnaissance, concealment, camouflage, deception, and movement. Security from fire is provided by counterfire, movement, cover, fortifications, and dispersion.

b. Security against ground attack is provided by air and ground reconnaissance forces; covering forces; advance, flank, and rear guards; and local security elements appropriate to the nature of the operation. Composition of these security forces is dependent on the type of operation and the composition of the enemy force. Against a highly mobile enemy, strong in armor, security forces must be of equal or greater mobility, and possess heavy antitank means; natural and artificial terrain obstacles assume great importance. In any case, security forces must be capable of effective operations under the same conditions as the enemy force which poses the threat.

c. Airborne forces, and guerillas and infiltrators, in addition to their physical capabilities, produce psychological shock. They are dependent upon local or isolated sources of supply and are not as heavily armed as conventional ground forces. Security measures against such forces are psychological indoctrination of personnel, constant patroling, immediate reaction to contain the enemy or to prevent the capture of critical areas, and rapid and continuing offensive operations to destroy the threat. In addition, it is important that local resources be denied to such forces, that undue dispersion not permit the destruction of isolated friendly elements, and that measures for the registration of the civilian population and rigid control of circulation be established and enforced.

151. Measures Against Air Action

a. The best defense against enemy air action is an aggressive counterair effort by friendly air forces to gain mastery of the air. The most effective active measures which can be taken by Army forces are participation in an air defense team of interceptor aircraft and Army antiaircraft weapons, and the use of organic AAA and other ground weapons in an AA role. Effective passive measures are cover, concealment, camouflage, dispersion, and minimum exposure to air attack during periods of vulnerability. An efficient air warning system is essential.

b. Security measures against airborne attack provide for the attack of incoming enemy aircraft by fighter aircraft and antiaircraft fire, and the destruction or containment of airborne forces while they are in the process of landing or immediately thereafter. Possible drop

or landing zones may be denied to the enemy by use of obstacles and mines. Defensive positions may be constructed in areas of probable airborne attack.

152. Measures Against Waterborne Action

The best defense against waterborne action is control of the seas and waterways by friendly forces. Security measures provide, in coordination with air and naval forces, for early detection and neutralization or destruction of hostile waterborne threats. The positioning of critical or highly vulnerable installations away from possible waterborne threats is a primary consideration. Defensive positions, to include obstacles and mines, may be constructed in potential landing places.

153. Measures Against Covert Threats

Security against hostile threats of espionage, sabotage, and subversion is best provided by effective counterintelligence operations. These are discussed in section II, chapter 5. The principal covert threats to security of U. S. forces being espionage and sabotage, it is essential that security measures to counter these two hostile activities be emphasized. These include training of all individuals in the safeguarding of security information and other important aspects of security; the control of circulation and communications; physical protection of sensitive areas, installations, and individuals; and the fostering of friendly relations with the civil population.

154. Measures Against Atomic, Biological, Chemical, and Radiological Action

a. The best defense against atomic, biological, chemical, radiological, and other mass destruction threats is the detection and destruction of the source and delivery system of these weapons. Other measures include dispersion consistent with efficient conduct of operations; construction of protective shelters and field fortifications; individual protective clothing and equipment; marking and avoidance of contaminated areas; training of all personnel and units in individual and collective protective measures, and decontamination; area damage control. For security against chemical, biological, and radiological attacks, additional measures are training in and thorough execution of personal hygiene and sanitation; protection of food and water supplies; preventive medicine; first aid training; detection devices. Added measures for security against atomic attack include provision of alternate means of signal communication and alternate command and administrative installations. The neutralization and destruction of clandestine delivery systems are achieved by the same measures applied to covert threats discussed in paragraph 153.

b. Additional details on protection against atomic weapons are found in FM 100–31, TM 23–200, and other appropriate classified Department of the Army publications; additional details on CBR are found in FM 3–5, FM 21–40, and FM 21–45.

155. Measures Against New Weapons, Tactics, and Techniques

The best defense against attacks by new weapons, tactics, and techniques is an aggressive intelligence effort, alertness of all elements of the command, and a decisive reaction by the commander. This includes timely reporting of variations in enemy tactics, techniques, and weapons and requires mental and organizational flexibility.

156. Measures Against Psychological Warfare

The best defense against enemy psychological warfare is a knowledge of our own aims and a free discussion of enemy efforts based upon an understanding of his objectives and techniques. Completeness of information is the chief bulwark of a propaganda defense system and is furnished primarily by unit I&E officers.

157. References

For those security considerations peculiar to a particular type of operation, see the detailed treatment of that operation in this manual.

CHAPTER 7

TROOP MOVEMENT

Section I. GENERAL

158. General

a. Definition. Troop movement is the transportation of troops from one place to another by any means.

b. Scope. This chapter will outline the classification, fundamentals, techniques, and methods of troop movement from the viewpoint of command.

159. Classification

Troop movements are classified as tactical or administrative, and may be further classified as to transportation means employed.

a. Tactical. A tactical move is one conducted with primary emphasis on the movement of the troop body in combat-ready formations. Tactical moves are based upon the supposition of early ground contact with the enemy, either en route or shortly after arrival at destinations. Under these conditions, the most efficient use of transportation facilities is frequently sacrificed to tactical considerations.

d. Administrative. An administrative move is one conducted with primary emphasis upon most efficient use of available transportation. Such moves ordinarily are based upon the supposition that *ground contact* with the enemy is a remote probability, both en route and shortly after arrival at destination.

160. Methods

Troop movements are accomplished over land and water, by air, or by various combinations thereof.

a. Land movements include those made by foot, motor, and rail.

b. Air movement may be by fixed, rotary-wing, or other type of aircraft which may either land to discharge troops and cargo or parachute them into the objective area.

c. While surface transportation is the most commonly used method of water movement, troop-carrying submarines have unique capabilities for certain specialized operations.

Section II. FUNDAMENTALS

161. General

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. Modern warfare pays dividends to the commander who moves and concentrates his means rapidly at critical points. An enemy atomic capability increases the necessity of efficient troop movement.

162. Plans

Carefully prepared and detailed plans are necessary to efficient troop movements. Units must be given timely notification of impending movements in order to permit proper preparation. All factors must be thoroughly considered and evaluated. These 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. Provision for control and administration to include administrative support en route and at destination.

e. Reassembly of personnel and equipment in the desired formation at destination.

f. Provision for adequate security en route and at destination.

g. Influence of climate, seasons, weather, and adequacy of the transportation net.

163. Control

Troop movements are accomplished through centralized control of decentralized operations. Control requires proper organization of the force for movement, provision of agencies to plan and supervise the movement, announcement of control measures such as routes or phase lines, and communications to provide information concerning, and command of, the movement. Proper organization for movement requires that the force be subdivided into manageable movement echelons and that unit integrity be preserved to the maximum degree feasible. When movement groups are composed of troops from more than one unit, a single commander must be designated, but subgroupings should consist of units under their own commanders.

164. Utilization of Means

Within the limits prescribed by military necessity, troop movements must fully utilize transportation means. This fundamental is paramount in administrative moves. It must always receive consideration in tactical moves.

165. Security

Security and security planning are essential to troop movement in order to avoid surprise, attack, and compromise of plans.

166. Training and SOP's

To provide for expeditious and efficient movement, individual and unit training in preparation for, and conduct of, all forms of movement are desirable. Unit standing operating procedures should include those standard methods and techniques for each mode of transport which the unit may be expected to employ.

Section III. MOVEMENTS BY RAIL

167. General

Movement of large bodies of troops is more economical by rail than by other forms of land transportation. When gasoline and motor vehicle tires are critical items, rail should carry all possible movements. When rail facilities are limited, tracked vehicles may be moved by rail and all others by road. Facilities in a theater of operations seldom are adequate to permit a free choice of transportation means.

168. Responsibilities

Troop movements by rail are the joint responsibility of the transportation agency and of the unit being moved.

a. The transportation agency is responsible for the establishment of facilities for the accommodation of the moving unit. It furnishes administrative support, provides security during movement except when this responsibility is charged to other headquarters, and renders 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 details of troops to the transportation agency.

169. Plans and Orders

a. When directing the movement of a unit by rail, the order will designate the points at which entrainment will take place 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 entrainment and departure of the elements of his command. Details of the move are worked out with the transportation officer of the area in which the move originates. A

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central movement control agency determines the routing. In a theater, all contacts with civilian or foreign government railroads are made through the transportation officer.

170. 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 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 in a manner to effect the most economical loading unless tactical considerations dictate the maintenance of tactical unity. When tactical considerations govern, each tactical element should be accompanied by its own equipment and supplies.

Section IV. MOVEMENTS BY WATER

171. General

a. Water transport is the primary means by which oversea operations are established and maintained. It is characterized by large capacity for personnel and tonnage, great range, and comparatively slow speed.

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. Convoys also may be provided with air cover.

172. Responsibilities

a. The responsibilities of the moving agency, the Military Sea Transport Service (MSTS) or the U. S. Navy, are set forth in FM 110–5 and applicable joint publications. For details relative to water transport, see FM 100–10.

b. The responsibilities of the unit being moved are the same as set forth in paragraph 168*b*.

173. Amphibious Operations

a. In an amphibious operation, troops are formed into tactical groupings corresponding to the carrying capacity of the available transport. Groupings are based on tactical missions and are landed in the order of their planned participation in the operation. Due regard must be given to the inclusion of adequate service units in the tactical groupings.

b. Troops with equipment and supplies for the assault are "combat loaded" and are distributed throughout the transports of the convoy in accordance with the contemplated operations upon landing. It is essential that assault troops, their combat equipment, and initial supplies, be loaded in the same ship in a manner that will insure rapid debarkation in the desired priority so the unit can effectively perform its assigned mission on landing.

c. Subsequent to the initial landing on a hostile shore, troops, equipment, and supplies for support of the operation and buildup of the bases may be administratively loaded depending on the situation. In certain cases, such as reinforcing an established base, troops, equipment, and supplies may be shipped in separate convoys to effect maximum use of available shipping.

d. For further discussion on amphibious operations see section XIII, chapter 11. For essential coordination and details concerning the execution of landings on a hostile shore see the appropriate field manual in the 60 series and FM 110–5.

Section V. MOVEMENTS BY AIR

174. General

Air movement is a means of transportation used to rapidly launch units into battle, or deliver troops, supplies, or equipment, or any combination thereof, to a secured objective area, or an area inaccessible to other means of transport. It is normally the least economical means of transport. Movements by air may be either tactical or administrative, depending upon the contemplated employment of the force being moved. Movement by air capitalizes on the capability of aircraft to overcome distances and geographical barriers and is characterized by speed and flexibility. It may be limited in its employment by adverse weather, inadequate air-landing facilities, and enemy counterair activities. The transport of bulky or heavy items of equipment may be restricted by the conformation and allowable cargo load of available aircraft.

175. Types of Air Transportation

Currently, the two types of aircraft which may be employed for air movement of troops, supplies, and equipment are fixed-wing and rotary-wing. Fixed-wing aircraft require airfields, except that assault aircraft can land on any relatively level and unobstructed terrain. The range and capacity of fixed-wing aircraft exceed those of currently available rotary-wing aircraft. Rotary-wing aircraft extend the flexibility of air transportation through the capability of operating from otherwise inaccessible areas and under weather conditions which would ground fixed-wing type aircraft.

176. Employment of Air Transportation

The employment of air transportation in theaters of operations is regulated by agencies established by the theater commander. See FM 100–15 and FM 110–5.

177. Security

In flight, security may be provided for air movements by flying in formation under escort of fighter aviation, by dispersing, or by flying at night or under other conditions of low visibility. Loading and unloading points in areas under friendly control may be protected by fighter aviation and ground forces, including antiaircraft artillery and antitank weapons. Troops, supplies, and equipment being moved by air should be dispersed in departure and arrival areas and should move to departure airfields at the latest possible time to minimize concentrations and consequent vulnerability to enemy attack. Such additional active and passive defensive measures as are dictated by the situation and enemy capabilities should be taken.

178. References

For further details concerning movements by air, see FM's 20–100, 55 series, 57–20, 57–30, 101–10, 110–5, TM 57–210, and appropriate Air Force publications.

Section VI. MARCH DOCTRINE

179. General

Marches are troop movements conducted by foot or motor or a combination thereof. They may be tactical or administrative and can be conducted by day or night. When the occasion demands, forced marches may be employed to expedite the arrival of troops at the desired destination. Certain fundamentals common to marches of all types are treated in this section.

180. Plans and Orders

Success of a march depends on thorough plans. The commander of a unit involved in a march must prepare complete, accurate, and realistic march plans. They must be translated into timely orders and must provide for security, control, the minimizing of march losses, and the uninterrupted march of the unit. The commander bases his march plans on the best available intelligence of the enemy, the terrain, the weather, and the capabilities of his unit. He plans his march so that the unit, including necessary equipment, arrives at the destination in the most suitable order and formation and in a condition appropriate to its probable employment.

181. Security and Reconnaissance

a. A force in movement protects itself against enemy action by security elements which operate in front of the command and by advance, rear, and flank guards when appropriate. It provides for adequate warning against enemy threats and adopts a march formation appropriate to its mission and to the enemy capabilities.

b. The capacities of underpasses, bridges, ferries, fords, and routes are predetermined by reconnaissance; unit components which exceed these capacities are rerouted. Reconnaissance also determines critical defiles and obstacles in order that congestion thereat may be prevented and local security may be provided.

182. Control and Coordination

a. The commander establishes initial control of the march by designating in his march order the initial and other critical points, the time at which the heads or the tails of columns pass these points, the rate of march, time gaps between units, the order of march, the routes of march, the assembly areas, and as appropriate, phase lines and march objectives. The commander also announces the location (s) of his command post and indicates communications to be used for control of the march.

b. To facilitate control, the commander provides for advance and quartering parties, guides, the marking of routes, and traffic control. For the latter purpose Army aviation and Military Police units are particularly suitable.

183. Organization

A command executing a march is basically organized into march units and, as is necessary for control, into march serials or march columns.

a. A *march unit* is a unit of a command that is of such size, ordinarily the equivalent of a company or battery, that it can move or halt at the command of its commander; so far as is possible, all elements of the march unit possess similar march characteristics.

b. A *march serial* consists of one or more march units organized under the senior officer and given a specific designation to facilitate control. The march units of the serial normally possess the same march characteristics.

c. A *march column* is composed of elements of a command moving over the same route. It may be composed of one or more serials. To facilitate control, a march column commander should be designated.

184. Halts

a. Halts during a day's march are taken at regular intervals to rest personnel, service vehicles, and adjust equipment. Halts are reg-

ulated by standing operating procedure or by the march order. Unit commanders are promptly notified of the time and approximate length of unscheduled halts.

b. Day marches should be terminated early in order to provide troops with rest and time to prepare for the next day's activities. Midday heat or enemy action may force the adoption of long daylight halts or night marches. At long halts, each unit moves to a previously selected location near the route of march.

185. References

See FM's series 7 and 17 and 25–10 for additional details on march doctrine.

Section VII. TYPES OF MARCHES

186. General

Administrative and tactical marches have the same characteristics as administrative and tactical moves, respectively, as indicated in paragraph 159. This section discusses aspects that are common to both administrative and tactical marches. In view of the importance of the latter, they are treated fully in section VIII.

187. Day Marches

In the absence of enemy threats, day marches are preferred since they permit more expeditious movement and are less fatiguing for troops. They are characterized by dispersed formations, ease of control and reconnaissance, and increased vulnerability to enemy observation and air attack.

188. Night Marches

a. Night marches are characterized by closed formations, more difficult control and reconnaissance, slower rate of march, and better concealment from hostile observation and air attack. In addition to providing better concealment for movement, night marches may be made to avoid excessive heat and to exploit the darkness and achieve surprise. Difficulty of control dictates more detailed planning, stringent control measures, thorough training, and march, light, and communication discipline.

b. If concealment is required, movement before dark is restricted to small detachments and the march is completed by daybreak. Under these circumstances, when movement is in proximity to the enemy, noise suppression is a consideration. In order to deceive hostile observation certain elements may be dispatched prior to darkness in a direction other than that planned for the march.

189. Forced Marches

Forced marches are undertaken only in cases of necessity because they decrease the efficiency of units. Available motor transportation is used to the maximum to meet requirements. Forced marches normally are accomplished by increasing the marching hours per day rather than by increasing the rate of march. A long forced march becomes a succession of daily marches of greater than average duration. In order to insure maximum effort it may often be advisable to inform the troops concerning the reason for ordering increased march performances (FM 101-10).

190. Motor Marches

a. General. Motor marches are characterized by flexibility of employment, ability to deliver large numbers of troops over long distances in short periods of time, increased logistical requirements (fuels, vehicle and road maintenance), and vulnerability to enemy action.

b. Organization. Units which have sufficient organic or attached transportation to move personnel and equipment at one time, execute motor marches by complete tactical groupings in one movement. Units lacking sufficient transportation execute motor marches by shuttle marching or by pooling transportation to successively lift subordinate elements.

191. Foot Marches

Foot marches are characterized by combat readiness, ease of control, adaptability to terrain, lack of dependence on roads, slow rate of march, and increased fatigue to personnel. Foot marches are made when the distance is short, transport or fuel is limited, or the situation or terrain precludes the use of vehicles.

Section VIII. TACTICAL MARCHES

192. General

a. Tactical marches are those conducted in anticipation of contact with the enemy. The degree of combat readiness varies with the probability of contact with the enemy, from remote to imminent.

b. Tactical marches in a theater of operations may involve movement to contact, movement away from the enemy, or other movements in accordance with operational plans. The fundamentals of tactical marches are best exemplified in movement to contact; therefore, it alone is treated in this section.

193. Movement to Contact

a. General. Movement to contact is that type of tactical movement conducted to gain contact with the enemy, either initially or to reestablish lost contact. The commander determines the probability of contact and directs the condition of combat readiness accordingly.

b. Contact Remote. When contact with enemy forces is remote, march dispositions which expedite movement are adopted. Columns having different rates of movement are assigned separate routes or their movements are echeloned in time. "Route columns" are utilized. Their organization depends upon the method of transport, the road and traffic conditions, and the effectiveness of enemy longe-range weapons and aircraft.

c. Contact Imminent. When contact with enemy forces is imminent tactical considerations govern and the movement is made in an "approach march" formation. In the approach march, units are tactically grouped and deployed. Forward elements of the command are deployed in a tactical formation suitable for immediate combat. Other elements of the command may continue in "tactical column" until they in turn are required to deploy. The formation adopted depends upon the mission of the command, the method of movement, the strength of the screening or covering force, the terrain, and the commander's knowledge of the enemy situation. Movement to contact ends when the commander deploys the force for battle. See chapters 8, 9, and 10.

d. Transition. The transition from a situation in which contact is remote through the varying degrees of probability of contact, to one in which contact is imminent is characterized by the progressive development of the command through the stages of "route column," "tactical column," and "approach march" to the final deployment for battle.

194. 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 mission and a zone, an axis of advance, or routes of movement. The commander also prescribes the time and place of departure of his columns so as to produce the desired formation. Column commanders report promptly when objectives or phase lines are reached or at other designated times. The imminence of contact with strong 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 along the axis of signal communication 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 development 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 as discussed in *a* above.

c. Signal communication during tactical marches is prescribed by standing operating procedure, supplemented, as necessary, by special instructions. The principal means employed are messenger and radio. Army aviation may be used to maintain contact between columns and to report their arrival at successive march objectives.

195. Formations During Movement to Contact

a. The column formation provides ease of control and maximum flexibility; however, it delays deployment in the direction of movement. It is the easiest of all formations to control, enables the commander to exert the maximum influence in coordinating the action of the forces initially engaged, and insures the availability of units intended for maneuver. This formation is particularly adapted to a vague situation.

b. A formation in line increases readiness for deployment in the direction of movement. Maneuverability is restricted, especially after gaining contact; changes of direction are difficult. This formation is best adopted when the situation is clear and little maneuver room is available.

c. An echelon formation facilitates maneuver and deployment to the refused flank and retains, to varying degrees, the advantages and disadvantages of both formations in width and depth.

196. Organization of the March Column

The order of march is dependent upon the mission, the terrain, the probable order of commitment of units into action, and their relative mobility.

a. The bulk of the armor and infantry moves in the main body. Armor and infantry are interspersed throughout the column to facilitate prompt and integrated entry into combat. Thus, armor provides close antitank protection throughout the column.

b. Field artillery is placed forward and interspersed within the infantry or armor column to insure its early availability for support of the security forces and the initial action of the main body.

c. Antiaircraft artillery may be disposed throughout the column to provide air defense or may be moved by bounds to protect passage of critical defiles.

d. Engineer units are located well forward in the march columns to perform engineering and pioneering tasks in order to facilitate the movement of the main force.

e. Administrative support is placed in the column to be available when required but must not interfere with the projected development of the column.

197. Transition to the Approach March

a. On approach of a column to close contact with strong hostile forces, it becomes necessary to abandon the road and to develop the route column into a broader and more dispersed formation. This transition to the approach march is accomplished by breaking the route column into several roughly parallel columns. As hostile fire becomes more intense these columns themselves are developed into smaller ones. The area where development starts ordinarily depends upon the effectiveness of the enemy's long-range fire. As a rule, time can be saved and losses avoided by detouring isolated areas under hostile observation or fire rather than by starting early development. Time generally is gained in the execution of the development by assigning the longest routes to the leading units of the column.

b. As the command approaches the enemy, forces in contact aggressively develop the hostile position. Assembly areas and routes thereto are reconnoitered and marked, and the artillery occupies positions to protect the movement. The resultant disposition of the command is in accordance with the commander's contemplated plans of action. The approach march terminates in the occupation of assembly areas by units preliminary to their deployment.

c. When the above development takes place under cover of darkness, those control measures necessary for night movement and combat are emphasized.

198. Assembly Areas

Whenever practicable, assembly areas are screened from hostile air and ground observation. When this is not possible, they should be located beyond the effective range of hostile artillery. Terrain which provides ground observation, turn-arounds for motor behicles, and natural protection against an armored attack, is desirable; it should provide troops with favorable routes of advance to their attack positions. Assembly areas are of such size as to insure that concentrated targets are not offered to hostile air attack, artillery fire, or mass destruction weapons. They are protected by antitank and antiaircraft weapons and local security detachments.

199. Security During Movement to Contact

a. General. The fundamentals of, the threats to, and the measures for security during movement to contact are in substance those discussed in sections I, II, and III, chapter 6.

b. Security Forces. A command moving to contact may use covering forces, advance guards, flank guards, and march outposts to secure itself against ground attack.

(1) Large forces advancing to contact may be preceded by covering forces operating directly under the force commander. Their mission is the early development of the situation, the seizure of key terrain features and the crushing of hostile resistance within their capabilities. For the operations of a covering force see chapters 8, 9, and 10.

(2) Each commander of a column, even though preceded by a covering force, also sends forward an advance guard composed of various arms with the mission of protecting the main body from surprise and insuring its uninterrupted march. For the operations of an advance guard see chapter 8.

(3) Flank and rear guards, operating directly under the column commander, secure the main body by operating to its unsecured flanks and rear when necessary.

c. Security at Halts. When a column halts for a short period, its advance, flank, and rear guard 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 may organize its own outpost system. In either case 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.

d. References. For additional details see FM's series 6, 7, 17, and 44.

CHAPTER 8

THE OFFENSIVE

Section I. FUNDAMENTALS OF THE OFFENSE

200. Purpose

The purpose of offensive action is the destruction of the enemy's armed forces, the imposition of the commander's will on the enemy, or the seizure of territory in order to further operations.

201. Scope

This chapter deals with the fundamentals of all offensive action (sec. I); offensive action against an organized position (secs. II through VIII); offensive action in a war of movement (sec. IX); and pursuit (sec. X). Section IX, in addition to dealing with the war of movement, covers the differences between such action and offensive action against an organized position.

202. Fundamentals of Offensive Action

a. Every plan for offensive action must, in addition to providing for the capture of critical objectives as intermediate goals, make provision for the exploitation of the advantages which thus accrue. The commander should keep available a reserve for the exploitation phase. Failure to prepare for the exploitation may result in a war of attrition, in which the attacker will inevitably suffer heavier losses. When the opportunity for decisive action is presented, the commander unhesitatingly commits his last reserve in the exploitation and demands the ultimate effort of his units.

b. The character of the terrain exercises a decisive influence upon the conduct of offensive operations. The commander's plans are directed toward the early seizure and retention of those critical terrain features which give him a decisive advantage by providing dominating observation, cover and concealment, and better fields of fire; facilitating maneuver and support; permitting control of routes of communication essential to friendly or hostile operations; affording additional security. The possession of critical terrain features is only important so far as the advantages accruing therefrom are exploited to destroy the hostile forces.

c. Offensive action requires the concentration of superior combat power at the decisive point and time. This combat power consists chiefly of firepower combined with maneuver. To be effective, the

momentum of combat power must be maintained continuously by providing adequate and timely support and supply.

d. Fire superiority is one of the most important requisites in offensive combat. It must be gained early and maintained throughout the attack in order to permit freedom of maneuver without prohibitive loss. But fire alone can rarely force a favorable decision. The effect of fire, including atomic fires, must be exploited by maneuver. A properly trained and well-led enemy must be destroyed by close combat or driven from his position by the threat of destruction.

e. By maneuver, the attacker seeks to create opportunities to increase the effect of his fire; to avoid terrain organized by the enemy for defense; and thereby to compel the enemy to defend in the open on terrain chosen by the attacker. Finally, the attacker maneuvers to close with and destroy the enemy.

f. In offensive action, there are three principal tasks to be performed—locating and holding the enemy in position; maneuvering against him to gain an advantage over him; and at the decisive time, delivering an overwhelming attack which destroys him. These tasks usually are accomplished by the three principal task groupings—the main attack, the secondary attack, and the reserve. In addition the commander will retain some fire support means under his direct control in order to permit maximum flexibility in the support of the three principal task groupings.

g. The main attack contains the greatest possible concentration of combat power. It seeks to secure the decisive objective and to destroy or cause the destruction of the enemy force.

h. The secondary attack contains the minimum essential combat power. It renders maximum assistance to the main attack by seizing terrain essential to the maneuver of the main attack, holding the enemy in position, deceiving him as to location of the main attack, forcing him to commit his reserve prematurely, and preventing him from reinforcing the front of the main attack.

i. A reserve must be constituted and held for employment at the decisive moment. It is used primarily to enter combat offensively to clinch the victory or to exploit the success. Piecemeal commitment of the reserve is to be avoided. When the reserve is committed, the command reconstitutes another one at the earliest opportunity.

j. A mission is a statement of a task and its purpose which clearly indicates the action to be taken and the reason therefor. The commander assigns missions to attacking units which focus attention on their goal and, hence, promote unity of effort. By assigning physical objectives, by designating the direction and time of attack, and by allocating means, the commander controls the operation and insures that the attacks of subordinate units are coordinated and that they

contribute to the accomplishment of the mission of the command as a whole.

k. In an envelopment, the main effort is directed toward the seizure of an objective in the enemy rear which will cut his routes of escape and subject him to destruction in his position. This is accomplished by striking an assailable enemy flank and by avoiding his main strength en route to the objective. The secondary effort pins down the enemy to prevent his escape and reduce his capability of reacting against the main effort.

l. In the turning movement an attacking force seeks to pass around and avoid the enemy's main force and to secure an objective deep in the hostile rear. The purpose of this maneuver is to force the enemy to abandon his position or to divert major forces to meet the threat. The enemy then is destroyed on ground of the attacker's choosing. The force executing the turning movement is generally out of supporting distance of any other ground attacking force.

m. The frontal attack which strikes the enemy all along his front is employed either to overrun and destroy a weaker enemy force or as a secondary effort in conjunction with other forms of maneuver.

n. In the penetration the main attack passes through the enemy's principal defensive position and seeks to completely rupture it. The purpose of the maneuver is to destroy the continuity of the enemy defensive positions and thus facilitate the destruction in detail of his divided forces. The penetration is adopted when the situation does not favor an envelopment, or when the situation favors employment of mass destruction weapons to rupture the enemy's battle position and afford opportunity for rapid exploitation.

o. Surprise, gained by choosing the unexpected place, time, direction, type, or strength of the attack, is always sought.

p. An aggressive attack inherently provides security. In the offensive additional security measures must be provided against enemy diversions, counterattacks, or other actions.

203. Influence of Terrain

a. The requirements peculiar to the echelon of a command will dictate the most important aspects of terrain. The necessity for continuous administrative support may emphasize the importance of communication centers, road and rail nets, and, frequently, waterways. The presence of major barriers such as rivers and lakes, mountains, or large forests and swamps, may influence the conduct of the entire campaign.

b. In the attack, correct use of terrain increases fire effect and diminishes losses. Commanding elevations form the framework of the system of observation. Observation directly determines the effectiveness of supporting weapons and influences the disposition, protec-

tive measures, selection of objectives, and control of attacking forces. Corridors, ridge and valley systems leading into the enemy position, form natural avenues of approach over which attacks are most easily conducted. Troops using valley approaches to the enemy position must be protected by simultaneous control of the adjacent ridges. On the other hand, cross compartments, ridge and valley systems parallel to the front, constitute obstacles to the progress of an offensive and are natural lines of resistance for the defense. Close or broken terrain, heavy woods, built-up areas, and abrupt changes in elevation hinder the offensive employment of armor, but afford cover and concealment for infantry. Open, rolling terrain, although providing little concealment and cover to infantry, is more suitable for rapid advances by armored formations. Soil trafficability, as influenced by the weather, may be a determining factor in the type of attack or avenue of approach which is used. For the effects of terrain on atomic weapons see appropriate classified manuals.

204. Objective

a. An objective may be a terrain feature, a locality, or a hostile force. In the offensive, an objective is usually a critical terrain feature. Depending on the echelon, it may be dominating heights, industrial complexes, communications centers, defiles, such as passes or bridges, or any other vital area in the enemy's rear. Hostile forces are not normally assigned as objectives, but may be in the pursuit or exploitation where such forces are moving, thus making it difficult to select terrain objectives in relation to them.

b. The seizure of terrain features or localities is seldom the entire mission; ordinarily there are stated or implied tasks whose accomplishment is facilitated by the seizure of terrain. Exceptions may be at the highest echelons where assigned missions are frequently only the seizure of strategic areas. Even in these cases, the higher commander integrates the efforts of the capturing unit with others to insure that the seizure of objectives is exploited to the fullest in order to destroy major portions of the enemy force. Combined arms commanders, when directing the capture of objectives, must consider that such seizure is secondary to the maximum destruction of enemy forces. Hence, missions to subordinates, in addition to designating terrain objectives, must state whether exploitation will be conducted by the capturing force or by other units. Forces must be tailored accordingly.

c. In a sense, physical objectives are measures for control of forward movement. They are selected so that their possession completes a significant intermediate phase in the destruction of the enemy force.

205. Frontages and Depth

a. Frontage is the lateral extent of the sector or zone of action assigned to a unit. Depth is the space from front to rear of any formation. Units are disposed in width and depth in order to permit flexibility, add continuity to the attack, provide security, and deceive the enemy. Depth and width are interrelated—main attacks usually are made on narrow frontages in comparatively great depth, whereas secondary attacks are made on relatively wide frontages with correspondingly lesser depth. Secondary attacks must present to the enemy the same potentiality as the main attack.

b. The frontage assigned to a unit is based on its mission, its infantry or armor strength, its mobility, the fire support available, the terrain, the expected enemy resistance, and the extent to which its flanks are protected. On one hand, the frontage should allow sufficient maneuver room for its subordinate elements. On the other hand, it should not be so extended as to require diversion of major forces to hold portions of the front while attacking on other portions. Forces seldom are distributed uniformly along the front. Units usually fight in groups determined largely by the advantage offered by the different sectors of terrain, with gaps existing between them.

c. Depth is achieved by a column or echelon formation. Such formations facilitate maneuver by complete tactical units. They provide for quick reaction to developments in the zone of action and are particularly suitable in vague situations. Depth also is achieved by a formation with subordinate units abreast, each of them being in column or in echelon. This facilitates the sustaining of maximum power to the front by reliefs within units with minimum disarrangement of command. Such a formation is suitable for an interior unit where the resistance has been definitely located and the possibility of maneuver limited.

Section II. PRELIMINARY OPERATIONS

206. Developing the Hostile Position

a. Ordinarily the defender will attempt to screen his main position and deceive the attacker about his dispositions by the employment of covering forces. A thorough and aggressive reconnaissance of the hostile position and its foreground by advance security forces is of primary importance. This reconnaissance seeks to find indications that the position encountered is the enemy main one. A well-organized system of hostile defensive fires, extensive mining, fortifications, barriers, and defensive wire are frequently reliable indications that the hostile battle position has been reached.

b. If air and ground reconnaissance agencies fail to definitely establish these indications, then a reconnaissance in force is made to test

the strength of the enemy position, to drive in the enemy's covering forces, and to seize terrain which will permit the proper deployment of the command and afford adequate observation of the hostile battle position. The leading troops then establish themselves on advantageous terrain features and cover the preparation for the attack.

c. Plans must be made to protect the leading elements from possible hostile counterattack. These plans include provision of supporting fires and assistance from elements of the main force which must be located within supporting distance. As much of the command as possible is held in readiness beyond the range of effective hostile artillery fire. Necessary measures are taken to protect it against air attack and attack by armor.

207. Intelligence Effort

a. The intelligence effort is directed towards more detailed intelligence as a basis for the plan of attack to include the plan of fire of the artillery and the other supporting weapons, and with special emphasis on the location of possible atomic targets. Ground reconnaissance and patroling are intensified to locate the flanks of the hostile position, to determine its weaknesses, and to identify hostile forces. Information sought includes the most favorable routes of approach to and within the hostile position; the nature and strength of obstacles; location, extent, and type of minefields; location and strength of fortifications, contaminated areas, hostile artillery and mortar positions; and location of command installations. Air photographs and detailed maps of the hostile position are distributed early to attacking echelons in order to allow detailed study.

b. Whenever possible commanders use these maps and photos in conjunction with personal ground and air reconnaissance of the terrain over which the attack must pass. Through these means, commanders determine the areas occupied by the enemy or covered by enemy fire, and the areas in which the attack can advance best by fire and maneuver.

c. Location of enemy troop concentrations and of the weak points in the enemy position is of vital importance. Active patroling, fire, feints, and ruses are used in an effort to force the enemy to reveal his position and his plan of defensive fires. Against a strong enemy position one or more limited attacks may have to be launched before a weak spot is located.

d. Intelligence revealing enemy installations of effective antitank and antipersonnel minefields difficult to breach may require the commander to attack on less desirable terrain, or to accept a delay in launching his attack until suitable means for effecting breaching can be obtained. Breaching in an assault normally will be performed by the troops making the assault, assisted by especially trained pioneer

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troops equipped with devices suitable for the breaching of the particular types of mines being used by the enemy. Failure to plan and provide for countermeasures against such minefields may result in prohibitive losses of personnel and armor.

e. Intelligence is covered in detail in chapter 5.

208. Movement to Assembly Areas

a. Even in a moving situation an attack is best organized and coordinated in assembly areas. The main force moves into assembly areas during preliminary operations. For details on movement to assembly areas, see Chapter 7, Troop Movements. For the selection of assembly areas, see section III, this chapter. Progressively more advanced assembly areas are assigned to component units of the attack echelon. The final assembly area of infantry, armored infantry, and tank battalions is the most forward concealed position available in rear of the line of departure; this is the attack position. When the enemy possesses the capability of employing weapons of mass destruction, precautions must be taken to minimize the possibility of presenting a profitable target. These precautions include concealment and camouflage, dispersion, denial of the area to enemy air, and coordinated timing to keep troops and materiel in the assembly area for the minimum length of time.

b. Subordinate units are notified of routes or zones of advance to assembly areas, any special security measures to be taken, and instructions for further reconnaissance. During the movement to and the occupation of assembly areas by subordinate units, the commander completes arrangements for the execution of the attack. Commanders of the attack echelon and of supporting units effect final coordination. Security minefields may be authorized, if time permits, to increase the local security of the assembly area; they must be removed prior to the attack.

c. Final preparations for the attack are completed as far as practicable before the assault troops move to their positions. These preparations include reconnaissance, planning, briefing of troops, and the movement forward of necessary administrative support; the resting, reequipping, supplying, and servicing of units.

d. To maintain secrecy, movement to attack positions is executed, whenever possible, under cover of darkness, smoke or other conditions of reduced visibility. Firing may be used to cover the noise of the movement. When armored units are involved, their unique sounds are difficult to conceal; therefore their movement to attack positions must be delayed until the latest practicable moment. Planned deceptive movements of armor prior to the attack will harass the enemy and deceive him as to the time and place of attack.

209. Decentralized Development

a. Shoud the commander decide that rapidity of action is essential to retain a tactical advantage, he may dispense with assembly areas and decentralize operations to subordinate units.

b. Detailed advance planning combined with modern signal communications reduces the necessity for such decentralized control to very special situations. Every effort should be made to retain the advantage of improved coordination of effort inherent in centralized control.

210. Relief of Committed Units

a. Purpose. Preliminary operations for offensive combat may include the relief of units in contact by executing a relief in place or a passage of lines. Either of these operations may be desirable in order to continue the momentum of the attack with fresh troops, to change the direction of the attack, to exploit a weakness in the enemy position with reserve forces, or to initiate an offensive on a front where stabilization has existed. Since passage of lines is more frequently associated with offensive operations than is a relief in place, only the former is treated in this chapter. For details covering relief in place see Chapter 9, Defense.

b. Passage of Command. The principal task involved in a passage of lines is the preparation for continuing the attack. Where both units involved are infantry, the incoming commander normally will assume responsibility for the zone of action with the commencement of the attack operation. Normally, the time interval between the commencement of a passage of lines and the initiation of the attack is brief. Little time is available for any readjustment of troops by the commander of the unit passed through prior to the attack.

c. Warning Orders. When a passage of lines is to be made, warning orders are issued by the commanders of the higher unit, the unit passing through, and the unit to be passed through. Warning orders include the approximate hour the passage of lines is to begin; instructions relative to the passage of responsibility for the zone of action; the zones in which passing units are to operate; instructions relative to the attachment of the unit passed through to the unit passing through, when appropriate; and the restrictions imposed upon reconnaissance parties as to size, routes, and hours of operation. Fragmentary orders are issued to disseminate additional information as it becomes available.

d. Liaison and Planning. Personal reconnaissance by the commander and staff of the passing unit, *and prior conferences* with the commander and staff of the unit passed through *are highly important.* A common plan is formulated and separate orders are issued covering

the movement of both units. In the preparation of the plan consideration is given to terrain, enemy capabilities, restrictions imposed by higher authority, and priority to the passing unit consistent with minimum requirements of the unit passed through. The plan must be flexible as to times and routes of movement. The size of the unit involved and the speed with which the passage must be conducted will govern the degree of detail included in the plan. The passing unit must be given copies of all records of all mined areas, and subordinate commanders of both units must insure their personnel exchange detailed information on lanes, gaps, marking and types of mines involved.

e. Agreements. In accordance with the orders of the higher commander, commanders and staffs of both the passing unit and unit passed through arrange and agree upon such details as passage of command, guides, use of roads, fire support to be furnished for the incoming troops by the unit to be passed through, security measures, transfer of the existing signal communication system, and administrative matters. Units to be passed through furnish guides. Individuals selected as guides should be capable and carefully rehearsed in their duties. They meet the passing unit before it enters the area and conduct it to assembly areas. Whenever possible, guides are furnished for units down to and including the platoon.

f. Timing. The passage of lines should be timed to insure continuity of aggressiveness in the attack. It is best executed at the end of a phase of the fighting.

g. Secrecy. To disclose the fact that a passage of lines is in progress invites heavy bombardment by air and artillery, atomic attack, a counterattack, or a combination of these, at a time when the maximum concentration of troops and equipment exists. Woods, conditions of decreased visibility, and favorable terrain are utilized in the approach when the passage is made in daylight. Smoke and artillery fire are placed on hostile observation posts and hostile forward elements. Mobility, ruses, feints, and demonstrations are exploited.

h. Support of the Passing Unit. During the course of the passage of lines, field artillery maintains its normal fires, but is prepared to execute counterbattery and protective fires along the front in the event of an attack by the enemy. The units in contact and the artillery passed through remain in position and furnish all possible fire to support the passing unit. When the attack has progressed far enough to prevent undue casualties to the troops passed through, they are assembled and organized for further employment.

i. Line of Departure. When executing a passage of lines at night, the line of departure for the attack is the line held by the forward elements of the unit passed through. In daylight, terrain permitting,

a line of departure between the forward elements to be passed through and a covered position close in their rear may be better than a line coinciding with the frontline element.

j. Location of Passage. Lightly held positions and gaps in the front lines of the unit which is passed through should be utilized by the passing unit to the greatest extent consistent with its scheme of maneuver. This is particularly true when armored elements execute the passage of lines.

k. Passage of Armor Through Infantry.

(1) The passage of a major armored unit through an infantry element frequently will occur after a breakthrough of an organized position by the infantry. In any case, a passage of lines by armor through infantry involves certain differences inherent in the characteristics of armor.

(2) Normally, a passage of command in the zone involved is unnecessary in view of the different missions of the units. Close coordination is essential between the commanders concerned. Liaison officers should be exchanged between the armored and infantry units.

(3) In view of the length of the armored columns, every measure must be taken to expedite the passage. Detailed coordination between the participating units must be arranged. This includes the coordination of fires. Priority on roads is normally to the armor without crippling the traffic essential to the support of other units. The infantry units in the zone may have to readjust their positions to facilitate the passage. Usually, because of the difficulty of operating armor at night, the operation is executed in daylight on a relatively narrow front.

Section III. COORDINATION AND CONTROL

211. Responsibility for Coordination

a. The commander is responsible for coordination of the action of all elements of his command. He is directly responsible for coordinating the supporting fire and maneuver within his command.

b. Based upon the commander's decision and plan, the attack order is issued. This order includes the necessary measures for the coordination and control of the attack. Coordination is assured further by command and staff visits to subordinates to see that orders are understood and are being carried out.

212. Role of Signal Communications and Army Aviation

The efficient employment of signal communications and Army Aviation plays an important role in the effective coordination of the action

of all elements of the command. Transmission of orders, requests, and information is greatly dependent on their continuing effectiveness. Coordination of movement, maneuver, and fire is difficult, if not impossible, at the higher echelons without a workable signal communication system. See section VII, chapter 4, for an additional discussion of signal communications.

213. Degree of Coordination and Control

Centralized direction facilitates operations by promoting unity of effort and better coordination. Hence, commanders strive to retain centralized control of their major subordinate commands. Retention of the means for influencing the battle must be achieved without undue sacrifice of intelligent, instantaneous reaction by subordinates. A commander unhesitatingly decentralizes control of his major forces and depends on the initiative and judgment of subordinate commanders when he cannot exercise timely and direct influence over the operation. He still requires the greatest degree of coordination possible and regains centralized control of his major subordinate elements at the earliest practicable time.

214. Coordination and Control Measures

In the attack, orders prescribe measures which enable the commander to exercise the desired control and effect the necessary coordination. The principal measures prescribed in orders are objectives, zones of action, lines of departure, time of attack, directions of attack, assembly areas, and fire control procedures. All units, on some occasions, and armored units, because of their inherent characteristics and techniques, use additional control measures. These are axis of advance, route of advance, phase lines, control points, and attack positions. Restrictions may be required to prevent employment of mines in areas planned for use by maneuvering forces.

215. Objective

The objective has been discussed initially in section I. Objectives should have the following characteristics:

a. Their capture must be possible within the time and space limits imposed.

b. They must be easily identified.

c. Their capture should facilitate future operations.

d. Objectives assigned subordinate elements of the attacking force must produce maximum unity of effort.

e. Their capture must compel the enemy to evacuate his position or risk destruction thereon.

216. Zones of Action

a. General. The commander coordinates the attacks of subordinate units by assigning them zones of action which limit their lateral movement. These zones may be altered to meet the changing tactical situation. The zones of action of units operating on an exposed flank normally are not limited.

b. Characteristics of a Zone of Action. A zone of action should—

(1) Include frontage in conformance with the commander's plan of maneuver and be commensurate with the capabilities of the unit to which assigned.

(2) As a minimum, extend beyond the objective to a depth necessary for the coordination of the supporting fires required for the seizure and consolidation of that objective.

(3) Where possible, wholly include important terrain features and avenues of approach thereto.

c. Limiting of a Zone of Action. In large units, zones of action normally are defined by designating their lateral boundaries. These boundaries must be easily identifiable on the ground. When large tactical groupings are separated initially by wide intervals, designation of a boundary between them may be deferred until a later phase of the action. In such situations, lateral control may be effected by the designation of axes of advance.

d. Coordination Across Boundaries.

(1) Boundaries are not impenetrable barriers. To take advantage of favorable routes of approach, units may be authorized to move temporarily into adjacent zones, after coordination with commanders concerned. Such movements must not interfere with the action of adjacent units or result in a dangerous massing of troops. Zones of action normally apply to assault echelons and should not restrict the emplacement and movement of artillery and other supporting weapons provided coordination is effected beforehand. A check should be made to insure that the area does not contain known minefields.

(2) If it is desired that an adjacent unit render special assistance to another in the attack, this assistance should be clearly stated.

217. Line of Departure

A line of departure is a designated line which troops, starting an attack, cross at a prescribed hour. The purpose of the line of departure is to coordinate the advance of the attack echelon so that its elements will strike the enemy in the order and at the time desired. It also facilitates coordination of fires. This line should be recognized easily on the ground and generally should be perpendicular to the

direction of attack. Based on the scheme of maneuver, it may be necessary or desirable to assign separate lines of departure and different hours to the several attacking units. The line of departure should be controlled by friendly forces. As permitted by these criteria, the line of departure should be as close to the enemy positions as possible.

218. Direction of Attack

When a commander desires that a subordinate unit direct its main attack in a specific direction within its zone of action he so indicates by assigning a direction of attack as well as a zone of action to the unit. Because of its restrictive nature, the commander designates a direction of attack only when necessary.

219. Time of Attack

a. The time of attack is the hour at which the line of departure is to be crossed by the leading elements of the attack. It is determined after due consideration is given to the time required for commanders to make the necessary reconnaissance, prepare plans, and issue orders; the time for all units to coordinate their plans; and the time for the attack echelon to organize its attack and move to the line of departure.

b. Avoidance of stereotyped times of attacks may contribute to surprise and prevent advance preparation by the enemy. The attacks of subordinate elements may be echeloned in time to mislead the enemy and to allow the shifting of supporting fires to successive attacking echelons. Simultaneous attacks provide maximum mass in the initial assault and avoid the concentration of enemy fires which may be achieved against successive attacks. Daylight attacks normally capitalize on friendly air, artillery, and armor superiority. Attacks in periods of limited visibility increase the psychological shock of the attack and overcome the defender's advantageous observation. They are more difficult to control and hence are directed against limited objectives.

220. Location of Assembly Areas

a. The proper location of assembly areas is an important control measure. Darkness, cover from hostile fire and air attack, a developed situation, and a plan of attack already decided upon favor assembly areas well forward. Although armored and motorized units can complete their development and preparations for battle at greater distances from the hostile front than can nonmotorized infantry units, their assembly areas should be as close to the enemy position as terrain and enemy activity will permit and should be near good avenues of approach to their selected attack positions.

b. The assembly areas and/or attack positions of attacking units are separated by a sufficient interval to preclude interference. Congestion

in assembly areas is avoided and they are occupied for the minimum time.

221. Fire Control Procedures

Successful attacks are accomplished by effective coordination between the troops in the attack echelon and supporting firepower. The commander coordinates the fire support means particularly atomic fires and the fire support agencies including artillery, air support, and naval gunfire, with the plan of maneuver of the attacking troops. Control by the commander includes provisions for instantaneous reaction to requests for fires. Details concerning fire support are covered in section VI.

Section IV. DISTRIBUTION OF FORCES

222. Main Attack

a. The main attack seizes the principal objective or destroys the enemy force. Main attacks are characterized by overwhelming concentrations of fire coupled with rapid and bold advances. The momentum of the attack is maintained until the final objective is captured. Such actions require strong support and comparatively deep echelonment of reserves; they are most feasible on only relatively narrow fronts. Where terrain, weather, and the situation permit, massed armor is well suited for this role.

b. Careful analysis is required to determine the mission of the main attack. This attack may seize the principal objective and destroy the hostile main force simultaneously. More often, these two tasks must be accomplished consecutively. Thus, in one case, analysis of the situation and the mission of the command may reveal that decisive results can be secured by the rapid seizure of the principal objective, initially bypassing the main enemy force. In another situation, the objective can be reached only by first destroying elements of the hostile force. Once the mission of the main attack is decided, the distribution of forces is determined.

c. Normally, the main attack must seize dominant terrain early in the action. The avenue of approach which offers most promise to the accomplishment of the mission is assigned to the main attack. It is selected so that success of the main attack is not solely dependent on that of secondary attacks.

d. The bulk of combat and logistic support is disposed to favor the main attack in order to develop and sustain the maximum combat power at the decisive point. Provisions are made for rapid reinforcement in the event of unexpected success, enemy strength, or the attrition of the main attack force.

e. Attacking echelons once committed to action lose their immediate availability for employment in the execution of other missions. Hence, when it is impracticable to determine initially when or where the main attack is to be made, the commander retains his freedom to act by disposing his forces in depth, by holding out strong reserves, and by maintaining centralized control of his supporting weapons. Once launched, however, the main attack must be pushed unremittingly to its objective. Enemy actions, minor changes in the situation, or lack of success of other elements are not permitted to divert forces from the main attack.

223. Secondary Attack

a. Economy dictates that overwhelming combat power cannot be employed everywhere at once. Thus, secondary attacks usually are assigned wider zones of action than is the main attack, with a consequent reduction in support, strength, and depth of reserves. To compensate for this lack of means, initial strong fire support is essential. The flexibility of supporting fires frequently permits them to support a secondary attack against an important limited objective without interference with the subsequent support of the main attack.

b. Secondary attacks exist only to assist the main attack. The mission of a secondary attack force must state clearly how it is to render this assistance. Most frequently, limited objective attacks, vigorously executed, will best assist the main attack by seizing critical terrain, preventing enemy disengagement, deceiving him as to the location of the main attack and forcing early commitment of enemy reserves at an indecisive point.

c. Demonstrations, feints, ruses, and effective use of barriers may serve to accomplish some of the above purposes where insufficient force is available to launch strong secondary attacks. Armored reconnaissance units are well suited to these latter tasks because of their firepower and high degree of mobility.

224. Reserve

a. Once the attack is launched, the reserve is one of the commander's principal means for influencing the action to obtain a favorable decision. It is used to exploit the success of the attack, to reinforce the main attack, or provide additional security. Often, a commander's most difficult and important decision is concerned with the time, place, and circumstances of committing the reserve. At the decisive moment every unit must participate in the battle, and the reserve is launched without hesitation. Once the main reserve is committed, every effort is made to reconstitute another from units which may be made available by the changed situation.

b. The strength and composition of the reserve will vary with its contemplated missions, the forces available, the type of maneuver, the terrain, possible hostile reaction, and clarity of the situation. The reserve must be large enough to exploit to the final objective. On the other hand, it should not be constituted by weakening the main attack. When the situation is relatively clear and enemy capabilities are limited, the reserve may consist of a small fraction of the command. When the situation is obscure, the reserve may consist initially of the bulk of the command, prepared for employment at any point. Armored units frequently are held in reserve initially especially when antitank defenses are strong, the enemy has a large armored force available, or when deep exploitation is contemplated. The habitual retention of all armor in reserve seldom is justified. In large forces, reserves must be mobile at all times. Transportation is attached if necessary.

c. Reserves should be located—

(1) To provide maximum protection against hostile observation and fire.

(2) On or near a road net which facilitates rapid movement to points of probable employment.

(3) To favor the main effort.

(4) To provide security to the command.

225. Fire Support

Along with the reserve, fire support becomes one of the commander's principal means for influencing action. Commanders must insure that subordinates have direct access to sufficient firepower to adequately support their maneuvering elements. By retaining the bulk of his fire support under centralized control, the commander provides for its massed employment, and its coordination with his maneuvering forces. By retaining atomic fire support under control of higher echelons this support can be provided over a wider front to support all the maneuvering forces. However, overcentralization of control of fire support may lead to delays in delivery of fire thus reducing its effectiveness. Fire support is completely dependent on adequate ammunition supply. When necessary, ammunition is allocated to favor the main attack. For details see section VI.

Section V. TYPES OF OFFENSIVE ACTION

226. General

Attacks are classified as envelopments, turning movements, penetrations, and frontal attacks. All types of offensive action are interrelated with the principal task groupings discussed in section IV.

227. Choice of Maneuver

a. The directives of higher commanders, the characteristics of the area of operations, and the situation of opposing forces will determine the type of maneuver which is decided upon. Although higher commanders rarely specify the method of attack, the mission, to include implied tasks, may impose such limitations as time, security, and directions of attack which leave little choice of method of maneuver. Normally, the area of operations and the opposing situations become the principal determinants in choosing the method of attack to accomplish the mission.

b. Previous chapters and sections I and IV, this chapter, discuss the effect of the terrain on offensive operations. Terrain exerts a decisive influence on the selection of a type of maneuver. Suitable avenues of approach into and within the enemy position, including the presence of obstacles and defensive works, may limit possible courses of action. Whenever possible, selected avenues of approach avoid enemy defensive strength. Frequently, a course of action, acceptable terrainwise, may be unacceptable because attacking echelons may become widely separated preventing mutual support and thus subjecting the command to defeat in detail.

228. Envelopment

a. See paragraph 202*k*. A successful envelopment depends largely on the degree of surprise attained and on the ability of the secondary attack to contain the bulk of the enemy's forces. Surprise is secured by unexpected maneuver and speed, by avoidance of observation, and by other deceptive measures. Superior mobility and air superiority increase the prospect of success. An envelopment is designed to force the enemy to fight in two or more directions simultaneously to meet the converging efforts of the attack.

b. Striking the defender's front with the main attack is avoided in favor of striking his flank or rear. The enemy's initial dispositions to meet an envelopment of his flank ordinarily cannot be as strong as the defense of his front without overextending it. The enemy strengthens an unsupported flank by preparing positions in depth and by holding mobile forces in reserve. When threatened with an envelopment, he may be expected to move his reserves to meet the enveloping force. Thus, rapid movement around his flank is essential to prevent his occupation of previously prepared positions. Vigorous secondary attacks prevent him from reconstituting reserves from other portions of his front.

c. The enemy may attempt to envelop the attacking force as well as to extend his flank beyond that of the attack. An attempt on the part of the attacker to outflank such hostile extension may lead to his own overextension or to a dangerous separation of the enveloping

force from the secondary attack. It usually is better to take advantage of the enemy's extension and consequent weakness by penetrating his thinly held front than by overextending in an effort to outflank completely the position.

d. The enemy may attempt a frontal attack. In this case, the friendly force executing the secondary attack defends itself or engages in delaying action while the enveloping force continues the envelopment or is moved inward for a counterattack.

229. Double Envelopment

a. A double envelopment is executed by two enveloping attack forces and a secondary attack force. A simultaneous envelopment of both flanks, although a decisive maneuver, generally requires a great preponderance of force and frequently is difficult to control. The use of atomic weapons in a double envelopment may well reduce the great preponderance of force required, as well as save considerable time in its execution.

b. The command seeking to execute a double envelopment must be capable of deploying on a broad front against an enemy on a narrower front or with little capability of maneuver. The maneuver is executed by making a frontal attack in the center while striking with the main attacks against both hostile flanks. When mobile forces are available in reserve, they may complete the envelopment by an attack from the rear. After an initial envelopment of one flank, favorable conditions for passing to a double envelopment through the use of reserves may be created when success has placed the enemy in a disadvantageous situation.

230. Turning Movement

a. See paragraph 202*l*. When the enemy takes up a strong defensive position, the commander of the attacking force considers the possibility of turning the enemy out of his position, forcing him to abandon it, and of fighting on ground more favorable to the attacker. Whereas, the envelopment seeks to destroy the enemy on the position, the turning movement seizes a vital area deep in the hostile rear to prevent the withdrawal, support, or reinforcement of the hostile main force. Subsequently, the enemy is destroyed at a place and time of the attacker's choosing. Although the turning force frequently is the main attack, it need not always be. For example an airborne division which seizes a vital pass for the main attack of a field army is a turning force.

b. The turning force frequently operates beyond mutual support of other attacking ground forces. Hence, each grouping must be strong and mobile enough to avoid defeat in detail. When conditions favor such action all major elements of the command may be employed in

the turning force, leaving only screening forces confronting the hostile dispositions. The turning movement is adapted particularly to highly mobile forces, such as armored, airborne, air transported, motorized, and amphibious forces. It is employed in situations in which an opportunity exists to seize vital areas in the hostile rear before the main enemy force can withdraw or be supported or reinforced. Deception, secrecy, and mobility are vital to successful execution of a turning movement.

c. Situations may occur, especially in the pursuit of a defeated enemy, in which he can be forced by direct attack to take up a defensive position while a portion of the more mobile attacking forces executes a turning movement against his lines of communication.

231. Penetration

a. See paragraph 202*n*. A penetration is demanded when enemy flanks are unassailable, or when time does not permit envelopment. A penetration is favored when the enemy is overextended, when weak spots are detected in the enemy position, or when conditions of terrain and observation are favorable for more effective employment of combined arms.

b. A penetration of a well organized position requires preponderance of combat superiority and the continuance of the momentum of the attack. Once the attack is slowed or stopped the enemy is given time to react. Plans for the penetration of a defensive position provide for the isolation and destruction by fire of the enemy area selected for the penetration. Mass destruction weapons may materially assist the penetration. Movement of hostile reserves into the area are prevented by artillery fires supplemented and extended by airpower.

232. Phases of a Penetration

a. A penetration of an enemy position requires the accomplishment of three principal tasks—a rupture of the enemy's main line of resistance; a widening of this gap by seizing objectives within the position; and the seizure of objectives which destroy the continuity of his position. These three phases are followed immediately by exploitation to seize vital areas deep in the hostile rear.

b. After the initial rupture of the hostile main line of resistance, the sequence of the remaining two phases is determined by the situation. It may be practicable, through the existence of weaknesses in the enemy's position, to seize the final objective of the penetration simultaneously with widening the initial gap. In other situations, seizure of the final objective must be deferred until the gap is wide enough for reserves to be committed for the final phase.

233. Rupturing of the Enemy Main Line of Resistance

The main attack is launched on a relatively narrow front. Assaulting troops are given closein objectives so that their maximum combat power is used initially. Local reserves are held in readiness to pass through or bypass attacks which have slowed or stopped. The secondary attack on the remainder of the hostile front is designed to contain the enemy and prevent him from disengaging. The width of the penetration is determined by the depth of the enemy position and the relative strength of the attacking echelons. Especially important is the amount of artillery, armor, atomic, and air support available for the attacking infantry. The wider the front of penetration the more difficult it will be for the enemy to close the gap. On the other hand, a penetration on a wide front requires much greater resources. The deeper the penetration, the more effective will be the action of rolling up the hostile flanks created by the breakthrough and the less will the enemy be in a position to restore his front by falling back.

234. Widening the Gap

Widening of the initial gap of the penetration may be assigned either to secondary attacks or to reserves. Plans are made to meet enemy counterattacks by shifting of fires or reserves.

235. Seizing the Objective and Subsequent Exploitation

The main attack normally is assigned the mission of seizing the objective which destroys the continuity of the enemy position. Frequently, the enemy position will be so deep as to preclude the seizure of the final objective by the initial main attack force. Then plans are made to pass the reserve through the initial attack force early, leaving exploitation beyond the final objective to higher echelons. Armor and motorized forces are especially suited to seizing the objective and the subsequent exploitation. This exploitation may include the envelopment and destruction of the hostile forces or seizure of key objectives deep in the hostile rear.

236. Multiple Penetrations

In large commands an attack may be initiated by launching simultaneously two or more convergent penetrations against weak localities on the hostile front. The isolation of extremely strong hostile defenses often is facilitated by this method of attack. Strong localities are contained initially by secondary attacks. When the multiple attacks have advanced sufficiently, the bypassed enemy forces are reduced and the penetrating attacks are united into a single main attack. The principles applicable to a single penetration govern the organization and conduct of a multiple penetration.

237. Frontal Attack

See paragraph 202*m*. Frequently, it is necessary or desirable to attack the enemy in the face of prepared defenses. Whereas the penetration is designed as a sharp attack to rupture the enemy position, the frontal attack is designed to maintain continuous pressure along the entire front. Since it is seldom possible to exert sufficient pressure over a great area to overwhelm the enemy by conventional means, frontal attacks usually are confined to secondary attacks with the primary object of maintaining pressure and thus preventing enemy disengagement. Frontal attacks, unless in overwhelming strength, seldom are decisive. Consequently, their adoption as a main attack in place of more decisive and less costly forms of maneuver, seldom is justified. When contemplated for secondary attacks, other means for holding the enemy in position, such as ruses and demonstration, also should be considered.

Section VI. FIRE SUPPORT AND ITS COORDINATION

238. General

The success of an attack is largely dependent on effective utilization of fire support. This involves efficient planning, and effective direction during the attack. Planning, execution, and coordination between attacking echelons and their supporting fires, as well as between fire support agencies, are essential. The supported or force commander is responsible for the coordination of all available supporting fires with each other and with the operations of his command.

239. Fire Support Means

a. General. The principal means of fire support directly available to large unit commanders is artillery. It is supplemented by air support and, in some situations, naval gunfire. Atomic weapons are an extremely powerful means of fire support. Organic weapons of infantry and armored units must be fully utilized and properly coordinated with all available fire support means. For discussion of the use of artillery, see FM's series 6. For discussion of naval gunfire see section XIII, chapter 11.

b. The Use of Air Support.

(1) Modern combat aircraft have great capabilities for delivery of fire in many forms. Attacks by aircraft also produce a great psychological shock to enemy troops. Therefore, Army commanders must take maximum advantage of the flexibility and power of tactical air force units which support them. To be most effective close integration of Army and Air Force plans is required at all echelons, particularly at the higher ones. The field army—tactical air force echelon is usually

the lowest which actively plans for joint Army-Air Force activities.

(2) Air forces assist Army forces by gaining and maintaining air superiority over hostile air forces; by providing combat and logistical air support to include airlift and resupply of airborne operations, close combat air support, aerial photography, tactical reconnaissance and interdiction of enemy land power and communications. Air reconnaissance is discussed in chapter 5; air lift is discussed in FM 100–10, FM 101–10, and FM 57–30.

(3) Air superiority enables the accomplishment of Army operations without appreciable loss of effectiveness, personnel, or materiel due to enemy air action. Gaining and maintaining air superiority greatly facilitates Army operations. It permits freedom of movement on the ground and allows friendly air forces to conduct their other operations more effectively.

(4) Interdiction operations are conducted to destroy or neutralize the enemy's military potential before it can be brought to bear effectively against Army forces, and to restrict the movement of enemy forces by disrupting his communications and supply lines. Interdiction operations designed to destroy, neutralize, harass, or immobilize those enemy installations, communications, facilities and units which will have a direct effect on the battle are of vital concern of the Army commander.

(5) Close air support operations are those missions designed to destroy enemy troops and installations by air attacks on targets which are sufficiently near friendly surface forces to require integration of the air effort with the fire and movement of the friendly surface forces. Such operations require detailed coordination, integration, and control of fire to prevent casualties to our own troops and aircraft and to insure efficient expenditure of effort. Normally, close air support should not be employed on targets within the means and capabilities of organic ground weapons unless—

(*a*) Other means of support are not available or are less suited than close air support for accomplishing the results desired; or

(*b*) Other means of support are incapable of accomplishing the results desired; or

(*c*) The urgency of the situation requires that the fires of all available weapons be brought to bear.

(6) The priority with which the various forms of tactical air support are conducted cannot be arbitrarily prescribed. Emphasis will be placed on that task which offers the greatest aid in

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the accomplishment of the theater plan. Since the first requirement of all services is to have freedom of maneuvers, gaining a favorable air situation normally has first priority in air action. There will be occasions, however, where the urgency of the situation requires the bulk of air effort to be quickly shifted from counter-air to close air support or interdiction for limited periods. Most situations will require simultaneous execution of all forms of tactical air support in varying proportions.

c. The Use of Atomic Weapons.

(1) Atomic weapons are another means of extremely powerful fire support. The integration of atomic weapons into tactical operations does not change tactical doctrine for the employment of firepower heretofore mentioned. Some operations will be designed to create profitable targets and to exploit the effects of the atomic explosion. However, the planning and execution of offensive operations will continue to be based on the integration of fire and maneuver. Decisive results are obtained when a maneuvering force promptly exploits the destruction and psychological effects of atomic weapons.

(2) When atomic weapons are employed, objectives for the attack generally will be deep. The greater destructive power and the relatively wide area affected by the atomic explosions will facilitate maneuver which otherwise might not be possible. For example, the use of atomic weapons may make the penetration a more acceptable form of maneuver.

(3) When planning an attack supported by atomic weapons, an atomic fire support plan is prepared concurrently with the plan of maneuver by the command making the decision to employ the weapon. All fire plans are coordinated with the atomic fire support plan to insure proper integration of fire support with maneuver.

(4) Plans provide for immediate movement through or around the target area. Exploiting units remain dispersed until the critical moment, then concentrate rapidly, and move to the decisive point to take maximum advantage of surprise and the enemy's disorganization.

240. Firepower in the Attack

a. Fire Superiority. Superiority of fire is achieved by the combined fires of infantry, armor, artillery, supporting aircraft, and, if available, naval gunfire. Fire superiority depends not only on volume of fire but also on its location and accuracy. Effective fire forces an enemy to take cover, abandoning his weapons at least temporarily, and

thereby gives to the attacker the fleeting opportunity to move to more advantageous positions. Since fire superiority is difficult to maintain for long periods of time, infantry and armor must take timely advantage of such superiority to close with the enemy.

b. Enfilade Fires. Enfilade employment increases fire effect. Flanking or oblique fire from flat trajectory weapons is especially effective when frontal fire is delivered simultaneously against the same objective. Convergent fire forces the enemy to take cover against attack from several directions and creates a powerful effect on enemy morale.

c. Massing of Fire. Fire support is more effective when delivered without warning and in overwhelming volume. Concentrations of fire are regulated to bring the greatest possible volume of fire from appropriate type weapons on objectives of decisive importance at the critical moments of the attack.

d. Counterbattery Fires. Superiority over the hostile artillery is generally indispensable for the success of the attack. Located hostile batteries must be neutralized or destroyed early in the artillery action. Neutralization once achieved is maintained by a portion of the artillery, while the bulk is employed on other missions until again required for counterbattery fire as new hostile batteries are located. Neutralization of the hostile observation is of great importance in attaining superiority over the hostile artillery.

241. Fundamentals of Fire Support Coordination

a. The fundamentals of fire support coordination enunciated in the following subparagraphs form the basis for the many and varied measures of directing and controlling fire support. For further details on fire support coordination, see FM 6–20.

b. Fire support coordination is a function of command at all combat echelons. The supported or force commander issues combat orders, policies, priorities, or individual decisions, which govern the employment of all fire support available to his command.

c. Fire support coordination centers are established at corps level and below in order to insure that the fires of all weapons employed to support the ground commanders plan of action are coordinated and integrated and provide maximum effectiveness of the available means. At army level, fire support coordination is accomplished by the army artillery, chemical, signal, and air-ground operations sections working in close conjunction with G2-G3 operations sections.

d. The organization and procedures for the coordination of fire support provide for the following:

(1) Adequate control and supervision by the force or supported commander.

(2) Concentration of fire support means upon any target or targets.
(3) Distribution of effective fire upon several targets simultaneously.
(4) Prompt attack upon targets of opportunity.
(5) Deviation from the fire support plan when necessary to meet unforeseen or changing situations.

e. Primary consideration is given to furnishing the type of fire support requested.

f. Fire missions are assigned to, or requested of, the agency which can deliver most effectively the desired fire within the required time. When considerations such as ammunition, tactical security, and coordination permit, the most economical means for delivery of fire is used.

g. Coordination must be effected rapidly and decisively in the attack of targets of opportunity. Fire on such targets usually is delivered by the most readily available effective means.

h. Fire support missions are undertaken by the lowest echelon that has the necessary means available. When appropriate means are not available, assistance is requested from, or directed by, higher echelons.

i. Fire support is coordinated at each echelon to the degree to which it is involved in the mission. Final action is accomplished at the lowest echelon which can effect complete coordination of the fire support mission.

j. The necessary precautions to safeguard friendly troops, aircraft, vessels, and installations from friendly fires are implemented at each echelon where fire support is coordinated.

k. A common system of target designation must be employed by all participating fire support agencies.

242. Preparation Fires

a. Artillery and other fires prior to the hour of attack may be limited to normal fires already in progress, or the attack may be preceded by a preparation.

b. The force commander decides whether a preparation is to be fired. He considers whether a sufficient number of remunerative targets will be located in time to prepare the fires, the probable effect of the preparation, the attendant loss of surprise, and the effect on the ammunition supply. The force commander also decides the duration of the preparation. In general, a preparation should be long enough to accomplish the effect sought, but not so long as to permit the enemy to change his major tactical dispositions in time to meet the attack. The duration of the preparation may be governed by the ammunition supply. It may vary from a few minutes to several hours.

c. The effect of the preparation is enhanced by dividing it into phases. The object of the first phase of the preparation usually is to neutralize the defender's forces, and protect our troops from the enemy's counterpreparation fires. Fires in this phase are directed against hostile artillery and mortars, command posts, observation posts, and signal communication installations; interdiction fire on enemy routes of communication is started. In subsequent phases of the preparation, fires are shifted to hostile defense areas, and assembly areas. Sufficient artillery continues counterbattery fire to maintain neutralization of the hostile artillery. Interdiction of the battle area is continuous. Hostile observation should be covered with smoke to prevent observation of the movements of the attacker and render adjustment of hostile artillery fires difficult. Smoke may be placed upon the forward elements of the defensive position to prevent the enemy from using aimed small arms fire. During the entire preparation, air support is concentrated against command installations and reserves, with particular attention to artillery and armor which cannot be covered effectively by artillery. Enemy minefields may be subjected to artillery fire both to destroy the mines and to provide cover for breaching personnel.

243. Fires Supporting the Attack

Fires supporting the attack are planned and shifted in conformity with the supported units. They are planned to assist the advance by firing on targets of opportunity, by gaining fire superiority as required, by protecting reorganizations, by breaking up counterattacks, by neutralizing hostile supporting weapons, by interdicting the battlefield, and by disrupting control. When likely target areas to accomplish the foregoing can be determined in advance of the attack supporting fires are planned to be delivered on call.

244. Fire Support Plan

The fire support plan is the coordinated and integrated plan for the employment of all fire support available to the commander. It is the primary fire control measure established by the commander prior to the beginning of the attack. It provides for—

a. Announcement of the commander's decisions for the employment of fire support including necessary information and instructions to amplify and implement these decisions.

b. Detailed, coordinated fire plans of available fire support agencies. Such of the following as are appropriate are included, usually as appendices to the fire support plan.

(1) Artillery (including guided missiles) fire plan.
(2) Naval gunfire plan.
(3) Air support plan.

(4) Atomic fire support plan.
(5) Organic weapons fire plan (at lower echelons).

Section VII. CONDUCT OF THE ATTACK

245. Characteristics of Attack

The attack is characterized by fire, maneuver, and shock action, combined and controlled to create a preponderance of combat power, culminating in the final stages of close combat in a powerful and violent assault in the decisive area.

246. Control of Attack

a. The commander uses every means possible to keep informed of the progress of the attack, the enemy's reactions, and the situation confronting his subordinate units. Based on this information, the commander maneuvers his forces and employs his fire support to gain the decisive objectives.

b. As the attack progresses, more control may be decentralized to subordinate commanders to permit them to meet rapid changes in the situation. Means then are provided to these subordinates to permit accomplishment of their mission.

247. Continuity in Attack

a. Continuity is provided in the attack by advance planning for, and timely execution of—

(1) Extension of signal communications.
(2) Resupply of attacking units.
(3) Relief or regrouping of units on intermediate objectives.
(4) Control of civilians, and evacuation of prisoners of war, sick, wounded, and the dead.
(5) The provision of adequate engineer and other service support.

b. Supporting weapons provide continuity of support by displacing forward by echelon. Fire plans include provision for defense of successive objectives to enable prompt reorganization and continuation of the attack. When supporting fires are lifted from the hostile position to permit the attacking echelon to close with the enemy, the loss of this support must be compensated for by increased fire of organic direct fire weapons and rapid movement to the objective.

248. Fire and Movement

The attacking echelon advances to within assaulting distance of the hostile position under its own and supporting fires. Attack units must follow closely supporting fires to gain ground with the least casualties. Infantry and armor advance to successive positions, utilizing available cover and concealment. Each attack unit uses close

supporting fires to assist in closing with the enemy and to push on to its successive objectives. Fire and movement are alternated so that an attacking unit moves forward assisted by the combined fire of adjacent and supporting units; in turn, it assists the advance of the adjacent units by its fire.

249. Assault

a. The assault of the hostile position usually is required in order to destroy or drive out the enemy. It normally is executed by small units and under decentralized control. Against strong resistance and a well-organized defense, the commander prepares for the assault by concentrating all supporting fires to neutralize the enemy and wear down his resistance before launching the assault. Under cover of the supporting fire, the assault units advance close to their objectives. When the supporting fires are lifted from the objective, the assault units, aided by firepower and shock action of tanks, overrun the hostile position. Any delay in launching the assault after supporting fires are lifted allows the enemy time to man his defenses. In some situations tanks operating under artillery air bursts may be employed in advance of infantry.

b. When winds are favorable, smoke may be placed on enemy positions to cover the assault. When the assault promptly follows the lifting of fires, the smoke cover normally will persist during the brief period required for assaulting infantry and armor to close with the hostile position.

250. Continuation of Attack

a. General. After the assault of an organized position, the attack often breaks up into a series of separate engagements which are continued throughout the depth of the hostile position. These engagements are directed by subordinate commanders within their zones of action and are supported by all the means at the commander's disposal. The first task is to capture assigned objectives. Areas of resistance then are reduced by fire, overrun, or outflanked. Even against weak resistance there may be some confusion and loss of control. At this time, the command is vulnerable to enemy counterattack and is apt to lose the opportunity to exploit its initial success.

b. Measures To Defend Against Counterattack. As the attack progresses each intermediate objective is promptly organized for defense. Previously prepared plans for reorganization and resupply are executed immediately. The artillery concentrates massed fires on enemy assembly areas and troops forming for counterattack. The reserve may be readied to protect the flanks of the attacking units, to hold ground seized by them, or to attack an enemy counterattack. Security minefields may be used to cover likely enemy avenues of

approach; if the halt is appreciable in duration these minefields may be extended.

c. Measures To Continue the Attack.

(1) The commander should commit his reserve at the decisive time and place to maintain a relentless pressure on the enemy and thus prevent the stabilization of the situation.

(2) The artillery concentrates on any rearward position on which the enemy attempts to reconstitute his defense. When required, and when road conditions, the possibility of maintaining ammunition supply, and the enemy's reaction permit, artillery displaces forward. Changes of position are kept to a minimum because they reduce the volume of available fire support. Movement to new positions is effected by echelon after timely reconnaissance of advanced positions.

(3) It may be of great advantage to regroup the attack forces during the advance to the new position and launch the main attack on another part of the front. Effort is made to exploit the deterioration of the enemy position by a quick and powerful blow before the enemy can reconstitute his defense. The use of mass destruction weapons combined with the action of large armored formations and air support at this time may be decisive.

d. Enemy Disengaging Action. Ordinarily, the enemy will strive to hold his position until nightfall and effect his withdrawal under cover of darkness. The attacking force maintains relentless pressure by continuing the attack at night. By these attacks, contact is maintained, the enemy is kept off balance, and his withdrawal from action is made extremely difficult. If the enemy succeeds in disengaging and adopts a delaying action, the attack is continued by concentrating in a decisive direction. An attack pushed energetically through the hostile front may isolate major elements and force the enemy to an early evacuation of the whole position.

e. Breakthrough of Enemy Position. In case of a breakthrough, armored units and motorized infantry units penetrate deeply into the hostile position and attack enemy reserves, artillery, and command and communication centers. The gap is widened by attacking its flanks. Other mobile forces are sent through the gap to exploit the advantages gained and to attack the enemy in rear and prevent his escape. At this time maximum air effort should be concentrated in support of the ground forces in exploiting the breakthrough.

f. Renewal of the Attack. If the enemy succeeds in withdrawing his major forces from action, the commander intensifies reconnaissance to obtain the necessary information upon which to decide what line of action to follow. Aggressive action may prevent the enemy from reconstituting his defense on a rearward position. If the enemy

succeeds in occupying a new position during darkness, it may be necessary to delay a renewal of the attack until daylight.

251. Use of Chemical, Biological, and Radiological Agents

a. When authorized by competent authority, chemical, biological, and radiological agents are used to reinforce the effects of the attack. See FM's 3–5, 21–40, and 21–45.

b. In coordinated attacks, particularly those against strong well-organized resistance, persistent and nonpersistent chemical agents may be used to increase the effectiveness of the attacking firepower by circumventing the defenders' conventional-type protection; *CBR support of an attack is characterized by extensive use of nonpersistent chemical agents.* Due consideration must be given to wind direction and speed, temperature, and atmospheric stability. Chemical agents, including incendiaries, are concentrated on targets which are less vulnerable to other types of fire. Nonpersistent agents should be used only on those targets which are occupied; persistent agents may be used to protect the flanks, *in the establishment or reinforcement of barriers*, and to neutralize areas which the attacker does not intend to enter unless adequately provided with individual protective equipment. Effective employment of nonpersistent chemical agents requires tactical surprise and the rapid establishment of casualty producing concentrations. Persistent and nonpersistent agents may be used for counterbattery. *Highly toxic nonpersistent chemical munitions will be helpful by virtue of their harassing effects during preparatory fires, even in small amounts.* The employment of smoke and CBR agents must be closely coordinated with other supporting fires, barrier and denial plans, and with the action of armor and supporting air units.

c. The attacker must not permit the advance to be long arrested by hostile CBR concentrations. Contaminated terrain which cannot be avoided is posted and passed with the assistance of protective masks and clothing.

Section VIII. SECURITY IN THE OFFENSIVE

252. General

a. Success of an offensive is dependent in large measure upon the action taken to protect the command from hostile reaction. Open flanks are highly vulnerable. The best security is to keep the enemy so heavily involved that he has not time or means available to endanger the success of the attack. Security in the offensive is provided by timely and aggressive search for information, proper dissemination of the resulting intelligence, use of security forces of ample mobility and combat power, effective use of barriers, adoption of flexible formations, and central location, in point of time, of mobile reserves.

b. In view of the great destructive capabilities of atomic weapons, the attacking force must not concentrate profitable targets for periods of time sufficient for the enemy to react. For additional details of security see chapter 6.

253. Security Against Hostile Armor and Aviation

In offensive operations, the mass of available means for defense against air and armored attack is disposed to favor the main attack. Active air defense measures are supplemented by passive means including cover, concealment, dispersion, and night movements. Active antitank defense means are supplemented by utilization of natural and artificial obstacles, including mines, to protect the flanks and rear of the command. Antitank weapons in each echelon are disposed to cover the most likely avenues of approach for hostile armored units. Armored reserves are positioned so that they can be rapidly employed against enemy tanks. The use of mines must be approved by the commander's immediate superior to insure the areas to be mined are not involved in other operations of the higher command.

254. Use of Tactical Aviation

Armed reconnaissance missions designed to locate and attack ground targets are particularly effective in at least initially delaying large enemy forces. Air reconnaissance missions also constitute an important security measure. For additional coverage of air reconnaissance, see chapter 5. For employment of tactical air forces, see section VI, this chapter.

255. Use of Reserves

Frequently, it may be necessary for reserves to be used to protect the flanks of the main attack from hostile counterattacks. If such action can be foreseen, reserves are positioned to move readily to threatened areas so that the main attack can proceed directly to the objective.

Section IX. WAR OF MOVEMENT

256. General

A war of movement is an operational phase offering freedom of maneuver. Freedom of maneuver frequently characterizes the initiation of hostilities, the opening of a new campaign or a theater, or the exploitation of a successful major offensive. The fundamentals of the offense, discussed in the preceding sections of this chapter, are applicable to a war of movement. Maneuver becomes of decisive importance; it is the means by which the commander gains maximum advantage of position before the situation stabilizes, and thus facilitates the destruction of the enemy. The advance is pushed forward aggres-

sively to gain the objective before the enemy can react. During the advance to contact every intelligence and security agency is utilized to the end that the main force is engaged under the most favorable conditions. Reconnaissance aviation is employed to locate and maintain observation of enemy forces while tactical aircraft strike the advancing enemy.

257. Covering Force

a. General. When contact has not been made, large forces should be preceded by a covering force operating directly under the main force commander. The purpose of such a force is the early development of the situation, provision of security to the command, and the prevention of unnecessary delay of the main body. Its missions are broad and may include attack to destroy enemy resistance, seizure and holding of key terrain features, or containment of large enemy units.

b. Composition and Size. In a war of movement, information of enemy strength and dispositions usually is limited. Therefore, the composition and size of a covering force is a matter of extreme importance because its initial engagement may determine the entire course of the battle. The initiative is retained by the attacker if the enemy's positions are developed rapidly and with strength. A force capable only of securing information is insufficient. A large mobile force, strong in armor and artillery and effectively supported by tactical aircraft, is a most effective covering force in developing the situation rapidly, in eliminating enemy resistance, and in keeping the enemy off balance.

c. Position. The covering force normally operates at considerable distance in front of the main body and its advance guards. A highly mobile covering force is required to accomplish its tasks rapidly and to avoid its defeat before the main force can intervene. For large commands, a covering force contains components of all arms and necessary services. Engineers are kept well forward. Field artillery is prepared for prompt support, displacing by bounds from one firing position to another when contact is imminent. Antiaircraft artillery in addition to its normal employment against hostile aircraft may move with advance elements to furnish additional mobile firepower or to assist in flank and rear protection. Rapid and reliable signal communications between the covering force and the main body must be provided. The responsibility for providing signal communications is normally that of the force commander. Army aviation may be used to supplement electrical means of communication. Airborne or air transported units may be employed in conjunction with the covering force to seize critical terrain features or make early contact with the enemy to restrict his maneuver.

d. Terrain Conditions. Armored divisions are very effective in this role when the terrain and situation permit. Ideal terrain conditions are rolling terrain; good trafficability; excellent road nets, particularly lateral roads; and no major obstacles. Infantry divisions are desirable for a covering force when the terrain is mountainous, rough, and heavily wooded, has a poor road net, or contains many obstacles. However, an infantry division, dispersed over a wide front, has difficulty of control in disengaging from combat, in regrouping, and in speedy movements.

e. Reconnaissance, Security, Frontages, Control, and Actions.

(1) The covering force provides its own reconnaissance and security forces which operate to its front and flanks. Reconnaissance aviation operates in close coordination with the covering force.

(2) The covering force operates on a broad front usually covering the entire zone of action of the main force. It advances in multiple columns of combined arms along major avenues of approach; contact between columns is maintained by patrols and Army aviation. Successive march objectives or phase lines are used to control its advance. A reserve is retained to influence local actions. Covering force actions are characterized by speed, aggressiveness, and small reserves. In the absence of specific instructions, the covering force commander takes the action necessary to best assist in the accomplishment of the mission of the command as a whole. Long-range fire is brought to bear on the enemy to force his early deployment.

258. Advance Guard

a. Behind the covering force the main force advances on a broad front. Each column precedes its advance with its own advance guard. The advance guard protects its main body against ground observation and surprise from the front and provides adequate time and space in which the main body may deploy for combat. By aggressive action the advance guard overcomes minor resistance bypassed by the covering force. The advance guard prevents unnecessary delay of the main body and defers the deployment of the main body as long as possible. Advance guards send out mobile reconnaissance elements to the front and flanks. These reconnaissance elements maintain contact with the covering force.

b. When the main force is not preceded by a covering force, its advance guards normally will be stronger· especially in armor, to permit more extended reconnaissance and more aggressive action. In this case, the actions of the advance guards are similar to those of a covering force.

c. The formation of an advance guard is such as to insure its own security and provide sufficient distribution in depth and width for its maneuver.

d. The distance between the advance guard and the main body is sufficient to preserve for the commander his freedom of action in the employment of the main body, but is never so great as to expose the advance guard to defeat before assistance can reach it. Distances are reduced at night, in close terrain, and under conditions of low visibility and restricted observation.

e. The above considerations apply also to the security of more mobile forces, such as the armored division, or a mobile task force. The principal modifications result from the superior mobility of the units. The zone of reconnaissance is more extensive, both to the front and to the flanks, to provide the necessary time for deployment of the faster moving force. Movement normally will be by bounds. Close cooperation of reconnaissance aviation is essential.

f. Information in greater detail covering procedures, tactics and technique of advance guard employment may be found in FM's 7 and 17 series.

259. Flank and Rear Security

a. When the flanks of a command are not protected by adjacent units, it is necessary to provide protection by using a portion of the command as flank guards. Their mission is to protect the marching column from ground observation and surprise, and in the event of an attack in force, to provide the necessary time and space for the development of the main body. Army and tactical aircraft are effective in supplementing flank guards.

b. When the main body executes a flank march in proximity to the enemy, flank protection assumes great importance and a strong flank guard is detailed. The advance guard may be converted into a flank guard to provide the protection required by a change in the direction of march. In this event, a new advance guard is organized.

c. The rear guard consists of a portion of the command which follows the main body in the zone of march, usually by bounds, for protection of the rear of the main body from attack, observation, or interference by hostile forces.

260. Main Body

a. The main body preceded by its advance guards follows as closely as possible behind the covering force. The covering force bypasses or contains small pockets of enemy resistance and continues its advance. The main body is immediately available to attack the main enemy force and seize the final objective.

b. Security elements from the main body may be designated to eliminate small pockets of resistance bypassed by the covering force. However, the main body must not be dissipated by piecemeal commitment.

261. Conduct With Contact Imminent

a. General. Information gained through action by the covering force and Air Force units permits the commander to clarify the situation gradually as contact becomes imminent.

b. Action by Covering Force and Advance Guards.

(1) The covering force commander is given early information by tactical aviation and by his own security elements. The advance guards are kept informed of the situation. Plans of the main force commander are made known to all concerned as the situation develops.

(2) As contact becomes imminent advance guards move forward on a progressively broader front. Based upon the situation developed by the covering force, the advance guard is engaged in accordance with the plan of the commander to extend the action of the covering force, or to seize ground essential to the development of its main body. When a strong covering force has not preceded the advance guard, advance guards should seize terrain affording essential observation.

262. Conduct After Contact

a. Covering Force and Advance Guard.

(1) Once contact with strong enemy forces is made, necessary measure are taken to develop aggressively the situation and protect the development of the command. This normally is best accomplished by the seizure of terrain critical to the needs of the main body. The enemy reaction to such action frequently will indicate both the strength and disposition of the hostile force.

(2) The hostile dispositions, particularly the location of enemy flanks, are important to provide the essential information upon which the commander can base his attack plan. When the security forces lack the strength to develop the situation fully, they may have to be reinforced by elements of the main body to obtain adequate knowledge of hostile dispositions before the coordinated attack is launched.

(3) When strong resistance is met reconnaissance units are quickly withdrawn and they are replaced by the assault elements of the covering force and advance guards. Reconnaissance units then are employed on the flanks to screen the main force, to execute further reconnaissance, or to harass

the hostile flanks and rear. Every effort is made to retain the initiative and to prevent the enemy from stabilizing the situation.

(4) While the main body is deploying for attack, the covering force and advance guards in contact continue to develop the enemy position. Their mission is to determine the strength and dispositions of the enemy and the location of his flanks in order to provide a complete picture for the attack plan.

b. The Main Body.

(1) The main body is brought forward by the most expeditious means in one or more columns. It is engaged rapidly and aggressively to attack the enemy before the hostile main forces have time to prepare for action.

(2) Maximum consideration is given to attacks upon the enemy flanks and rear before the enemy is prepared to counter these envelopments. A coordinated attack may be organized or an attack from march column may be ordered while the remainder of the main body deploys. The latter piecemeal commitment is to be avoided except when rapidity of action is essential and combat superiority at the vital point is present and can be maintained throughout the attack.

(3) Consideration is given to the early employment of the power and shock action of armor to break up and destroy enemy attack formations.

(4) Artillery is committed early to interfere with enemy deployment, to destroy his attacking echelons, and to neutralize his artillery.

Section X. PURSUIT

263. Purpose of Pursuit

The pursuit seeeks to annihilate the hostile main force.

264. Exploitation and Pursuit

a. Exploitation. Exploitation is taking full advantage of success in battle and following up of initial gains. While local initial gains may appear insignificant, the cumulative effect on the enemy of their aggressive exploitation may be decisive.

b. Pursuit.

(1) Pursuit is a type of offensive military operation. It takes place in the exploitation phase. Other operations, conducted concurrently with the pursuit, may be required by economic, political, or other considerations. Such operations and secondary military ones are generally undertaken only when the attacker's superiority warrants the diversion of troops to missions other than the pursuit.

(2) Pursuit operations are a form of a war of movement. In the pursuit, however, the enemy has lost his ability to influence the situation, and reacts in consonance with the pursuer's actions. Hence, pursuit is conducted aggressively and under decentralized control. Commanders are justified in taking greater risks to attain a decisive victory.

265. Launching the Pursuit

When the enemy is having difficulty in maintaining his position, the commander utilizes all means to maintain the continuity of the attack and to exert relentless pressure. The pursuit is launched when the enemy is no longer able to maintain his position and endeavors to escape. Important indications of a weakening enemy are the continued advance in a decisive direction without strong enemy reaction; the capture of critical objectives; the increased number of captured prisoners, abandoned weapons, and unburied dead; the diminution of hostile artillery fire, and the diminution or cessation of other hostile countermeasures.

266. Leadership in the Pursuit

The pursuit requires aggressiveness and the exercise of initiative in all echelons of command. *The pursuit is pushed to the utmost limit of endurance of troops and equipment.* Commanders remain well forward to provide impetus to the pursuit and to insure adequate provision of fire and logistical support.

267. Preparation for the Pursuit

a. In anticipation of launching a pursuit, preparatory measures include issuance of warning orders; regrouping and motorizing of reserves; and special provisions for the supply of ammunition and motor fuel. Plans are made to augment motor transportation and supplies from captured and abandoned stocks. Air transport is utilized to assist in supply and evacuation to the extent necessary.

b. Pursuit requires extensive reliance upon radio for communication. The construction of wire lines is concentrated along the more important axes. Army aviation is used to supplement communications.

268. Conduct of the Pursuit

a. By the coordinated employment of every available agency of destruction and terrorization, the shaken morale of the defeated enemy is converted into panic.

b. The pursuit is conducted on as broad a front as possible. Direct pressure against the retreating forces is maintained relentlessly while an enveloping or turning force cuts the enemy's lines of re-

treat. Double envelopment of the retreating main force or its separate elements is attempted whenever conditions permit.

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

d. When the enemy main force succeeds in establishing itself in a position from which it cannot be dislodged quickly, the commander takes immediate action to launch an overwhelming attack, supporting this attack with all available means.

e. The forces engaged in the direct pressure and in the encircling maneuvers are controlled by the assignment of deep objectives, broad missions, axes of advance, and zones of action. Maximum latitude is given to subordinate commanders to allow the exercise of their initiative. Decentralization of control of fire support and of logistical means may be required.

f. Reconnaissance aviation continuously observes vital points in the enemy's zone of retreat to keep contact with retreating columns, to locate any movement of hostile reinforcements, and to keep commanders informed of the hostile activities and movements within their zones of action.

g. Employment of helicopter-borne forces to leapfrog in succession over enemy rear-guard positions will not only greatly speed up the advance, but will enable sections of the enemy forces to be cut off and destroyed without prejudice to the momentum of the pursuit.

h. Combat units are given operational control of guerillas and partisans in their zones of action. Guerillas and partisans are used to further the confusion in the enemy's ranks and to hamper his retreat or efforts to reorganize.

269. Direct Pressure Force

a. Mission. The direct pressure force attacks continuously to prevent enemy disengagement and subsequent reconstitution of the defense, and to inflict maximum casualties on the enemy.

b. Composition. Emphasis is placed on heavy, long-range fire support to obstruct hostile avenues of retreat, and on engineer units which must rapidly clear the zone of obstacles created by the enemy. Sufficient force is required to allow relentless attack, day and night.

c. Maintaining the Pressure. No opportunity is given the enemy to reorganize his forces and reconstitute his defense. Under no circumstances is he allowed to break contact. The leading elements push fast moving columns along all available roads. They contain and bypass small pockets of resistance. The direct pressure (main) force

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follows closely, mops up these encircled units and prepares to reinforce leading elements if stronger enemy forces attempt to stand and fight. During the night units continue their march or make limited objective attacks which serve to keep the enemy off balance. The direct pressure force also attempts, by close envelopments, to cut off the retreat of segments of the enemy.

d. Fire Support With the Direct Pressure Force. So long as the enemy can be engaged with observed and planned fire, a portion of the artillery remains in position to fire on the more distant targets. Fire support for fast moving columns may be provided by column cover—a mission to provide cover over a column of friendly forces by aircraft in radio contact therewith, to provide protection, reconnaissance, and/or attack of air or ground targets which threaten the column. Other Air Force elements are employed to concentrate on critical points, probable lines of enemy withdrawal, especially defiles, on his columns in retreat, and on hostile reserves endeavoring to reconstitute the defense.

270. Encircling Force

a. Mission. The mission of the encircling force is to get in rear of the defeated enemy and block his retreat so that he may be destroyed between the direct pressure and encircling forces.

b. Composition. Armor and motorized units are employed in the encircling force, and tactical aviation is coordinated with the maneuver of this force. Emphasis again is placed on engineer units which must rapidly clear the path of obstacles. Heavier artillery usually is left with the direct pressure force. Airborne troops may be used to seize defiles or other critical terrain objectives deep in the hostile rear.

c. Conduct of the Encirclement. When practicable, mobile forces in the encircling maneuver, advance along roads paralleling the enemy's line of retreat attempting to reach defiles, bridges, and other critical points prior to the enemy main force. When the encircling forces cannot outdistance the enemy, they engage the enemy's main forces in flank.

CHAPTER 9

THE DEFENSIVE

Section I. FUNDAMENTALS OF THE DEFENSE

271. Definition

The defense is the employment of all means and methods available to prevent, resist, or destroy an enemy attack. The defensive is that attitude or condition of a force when it stands ready to protect itself against enemy attack.

272. Scope

This chapter embraces the defense in its *two* principal types, the position defense and the mobile defense. It treats of the organization of the ground, tactical groupings of troops, the organization of fire, and the conduct of both types of the defense. Counteroffensive tactics employed in conjunction with the defense follow the principles discussed in Chapter 8, The Offensive. Delaying force and covering force tactics employed in conjunction with the defense follow the principles discussed in Chapter 10, Retrograde Movements.

273. Purpose

a. Defensive combat has one of two general purposes: first, to gain time pending the development of more favorable conditions for undertaking the offensive; or second, to economize forces in one area in order to concentrate superior forces for decisive offensive action elsewhere.

b. Under the first of the above purposes, the commander may assume the defensive pending the arrival of reinforcements, he may be thrown on the defensive by inferiority in relative combat power, or he may assume the defensive as part of a deliberate plan to win the battle by counteroffensive action. Political and strategic considerations may also dictate the assumption of the defense.

c. Under the second purpose, the defensive may be adopted as an economy of force measure in order to permit application of the principle of mass elsewhere.

274. Mission

The mission in the defense may be to deny a vital area to the enemy, to protect a flank, to contain an enemy force, or to effect maximum attrition and disorganization of the enemy as a preliminary to offen-

sive action. The mission is paramount. It normally dictates the type of defense selected and the position or area defended although considerations such as the composition of opposing forces, the terrain, and security may favor a different type, position, or area of defense. A defensive mission may be imposed by the situation, directed by higher headquarters, or adopted voluntarily.

275. Fundamentals of Defensive Action

a. Proper Utilization of Terrain. The defense utilizes the terrain to the maximum advantage in order to enhance combat power. Terrain normally favors the defender, since he selects the ground on which the battle is to be fought. The natural defensive strength of the position has a direct bearing on the distribution of forces both as to frontage and as to depth. Field fortifications and barriers are employed to improve the natural defensive strength of the terrain. When analyzing terrain, the following points are considered:

(1) Critical terrain.
(2) Observation and fields of fire.
(3) Cover and concealment.
(4) Obstacles.
(5) Avenues of approach.

b. Security. Security is especially important in the defense. It assists in offsetting the attacker's inherent advantage of initiative as to the time, place, plan, direction, strength, and composition of his attack. See section II.

c. Mutual Support. Mutual support is desirable in order to increase the solidity of the defensive position, to prevent defeat in detail, and to prevent infiltration. Tactical localities are selected so that the maximum degree of mutual support can be achieved when they are organized and occupied.

d. All-Round Defense. Although primarily oriented to the front, all-round defense meets the enemy attack from any direction, and prevents the enemy from taking any position by surprise from an unexpected direction.

e. Defense in Depth. Defense in depth is essential to prevent enemy exploitation of a penetration, thus precluding his free maneuver within sensitive rear areas.

f. Coordinated Fire Plan. Coordinated fires are the principal means to defeat the enemy assault in front of the position. Fire plans provide for bringing the enemy under fire as early as practicable, subjecting him to increasingly heavier fires as he approaches the defensive position, and supporting the counterattack to eject or destroy him. It includes antitank fire plans.

g. Coordinated Barrier Plan. The natural features of the terrain are supplemented by the effective use of planned barrier systems in-

cluding minefields, other artificial obstacles, and as authorized, chemical, biological, radiological (CBR) agents, particularly chemical agents. The plan includes all antitank barriers. (See FM's 3–5 and 5–15.)

h. Flexibility. The defender must retain the maximum degree of flexibility by making provision for the rapid shifting of forces in the defense and by retaining the maximum reserve for counteroffensive commitment at the decisive moment.

276. Major Considerations

a. The basic tasks of the defense are to force the enemy to attack under unfavorable circumstances; to deceive him as to the area in which decision will be sought by the defender; to detect the time, direction, and size of his attack; to disorganize the enemy attack; and finally, to contain, repulse, or destroy the enemy by counteroffensive action.

b. The major considerations in planning for the defense are security of the defensive position, the selection of the appropriate type of defense, the choice and organization of the terrain on which the defense is to be conducted, the organization of fire, the composition and location(s) of the reserve, and the preparation of counterattack plans.

Section II. SECURITY

277. General

a. In the defense, security forces are assigned the following missions: to provide early warning and information of the enemy; to delay the enemy so as to gain time for the main force; to deceive the enemy and force his early deployment; to disrupt and canalize his advance; and to provide for rear area security. Unless their mission requires it, security forces avoid decisive engagement. They should have mobility equal to or greater than that of the enemy. Security forces reconnoiter aggressively and make use of every opportunity for limited offensive action to delay and harass the enemy and to gain information.

b. Security forces consist of reconnaissance and combat aviation, covering forces, the general outpost, the combat outpost, electronic intelligence agencies, and local security elements of each command.

c. Patterns for organization and tactics of security forces must be varied to deceive the enemy.

d. Measures are taken to prevent espionage, sabotage, and guerilla action and to control the civilian population.

278. Covering Force

a. Whenever practicable, a mobile covering force, normally provided by corps, establishes early contact with the enemy forward of

the general outpost. Its mission emphasizes maximum delay and disruption of the enemy advance. Armored divisions are ideally suited for this mission. The considerations which govern the organization of a covering force in the defense are the same as those for the offense (see ch. 8).

b. The covering force employs delaying action, defense on successive positions, limited offensive action, or a combination thereof. For the tactics of delaying action and defense of successive positions in delaying action, see chapter 10. If the covering force is to provide the mobile reserve in the defense, provision must be made for its withdrawal in ample time to take up its reserve position, to perform necessary rehabilitation, and to prepare plans for its reserve role.

279. General Outpost

a. The general outpost, when established, is normally provided by divisions or comparable elements assigned defensive sectors. Although it gives early warning of the enemy approach and provides time for the units in the main battle area to prepare themselves for combat, its mission emphasizes early deployment of the enemy and deception as to the location of the main battle position. It covers the withdrawal of the covering force. It denies the enemy close ground observation of the main battle position.

b. The composition of the general outpost depends upon the situation, the mission, and the terrain. It usually consists of infantry, armor, and engineers. According to its location, it may be supported by artillery fires from the main battle position or may have artillery attached to it. The general outpost forces should be mobile because of the demand for movement over a wide front.

c. The initial location of the general outpost normally is designated by the corps commander. The position should deny the enemy close ground observation of the main battle position; it must afford good observation and long-range fields of fire; natural obstacles are also desirable. In determining the location of the general outpost in relation to the main battle position, the primary considerations are the mission, the terrain, the enemy's capabilities, and forces available to man the position. The location must be far enough forward to accomplish the necessary delay; however, its forward location should not unnecessarily risk the destruction of the outpost force.

d. The general outpost accomplishes its mission by long-range fires and observation, by obstacles and demolitions, by aggressive patrolling and reconnaissance, and by delaying action. It avoids decisive engagement. It usually is provided from the reserve of the frontline divisions and normally reverts to division reserve when it withdraws behind the main line of resistance.

280. Combat Outposts

a. Combat outposts are provided by regiments occupying the battle position, normally by each frontline battalion. Combat outposts have the primary missions of warning of enemy attack and providing a counterreconnaissance screen.

b. Combat outposts should be located on the first high ground forward of the battle position and within supporting distance thereof. Without seriously depleting the frontline battalions, the size and composition of the combat outposts must permit the accomplishment of their missions.

c. Combat outposts accomplish their primary missions by observation, by fire, by patrolling. They are supported by fires from within the battle position. They avoid decisive engagement.

281. Local Security Elements

a. The area in the rear of the combat outposts is patrolled by elements of the frontline battalions in order to maintain contact with the combat outposts and to add to the security of the position.

b. Upon withdrawal of the combat outposts, listening posts, observation posts, and patrols provide local security. Listening posts and patrols are particularly important at night and during periods of limited visibility.

Section III. TYPES OF DEFENSE

282. Basic Types of Defense

There are two basic types of defense, the *position defense* and the *mobile defense.* The fundamental differences between these two types are the manner in which forces are disposed and the method of maintaining the defensive position. In the *position defense*, the bulk of the defending force is disposed in selected tactical localities with principal reliance placed on the forces in such localities to maintain their positions and to control the terrain between them. The reserve is used to add depth, to block, or to restore the position by counterattack. In the *mobile defense*, the bulk of the force is held as a mobile striking force with the remainder manning the forward defensive position. The forward defensive position may consist of islands of resistance, strong points, or observation posts, or any combination thereof. These islands of resistance and/or strong points may or may not be mutually supporting. The striking force serves as a counterattacking force to destroy the enemy at the most favorable tactical location.

283. Selection of Type Defense

a. Each defensive disposition represents a different compromise among the basic elements of defensive deployment. The type of defense selected depends upon the mission of the defending forces, the nature of the terrain, the composition, relative strength, and combat power of the opposing forces, the air situation as it affects the employment of reserves, the season and weather, and the availability of reserves at higher echelons.

b. The position defense capitalizes on the strength inherent in closely integrated organization of the ground. Its adoption is favored when—

(1) The mission requires that certain terrain be held at all costs.
(2) The terrain is such as to restrict the enemy's room for maneuver and affords natural lines of resistance.
(3) The forces available are predominantly infantry with relatively limited mobility.
(4) The terrain and relative air superiority are such as to limit the freedom of movement of the defender's reserves to points of probable employment.
(5) Adequate time is available to organize the position.
(6) Adequate reserves are available at higher echelons.

c. The mobile defense emphasizes maximum mobile combat power in preference to integrated organization of the ground. Its adoption is favored when—

(1) The mission permits the battle to be fought in sufficient depth.
(2) Terrain facilitates maneuver by the defender.
(3) The mobility of the defending forces is superior to the mobility of the attacking forces.
(4) The air situation permits relatively free movement of defending forces.
(5) Adequate time is not available to organize a position defense.
(6) Reserves available at higher echelons are limited.
(7) The enemy has the capability of employing mass destruction weapons.

d. Successive echelons or adjacent units may be conducting different types of defense concurrently. Thus, while an infantry division may be conducting a position defense, the corps of which it is a part may be engaged in the mobile defense; the reverse may also be true. A combination of the types may frequently be required.

284. Defense of Isolated Centers of Resistance

a. Either the mobile or position defense may involve the defense of isolated centers of resistance deliberately or involuntarily.

b. Encircled forces maintain unit integrity, organize perimeter defenses, and remain in position until their relief can be effected or their breakout can be coordinated with, and supported by, other forces.

c. Deliberate acceptance of the encirclement of defended areas can be justified only if the mission warrants the sacrifice of the force or it can be assumed that relief is possible prior to its defeat. This deliberate acceptance of encirclement will rarely achieve the purpose of engaging superior enemy forces unless the encircled force occupies a terrain feature critical to enemy success.

285. Position Defense

a. The ideal form of the position defense is a compact defense in which effective mutual fire support exists throughout the width and depth of the position. The defense is built around a series of organized and occupied tactical localities. These tactical localities are selected with consideration for their observation and natural defensive strength so that their retention will insure the integrity of the position. The battle position comprises a zone of resistance consisting of a number of mutually supporting defense areas disposed irregularly in width and in considerable depth, each organized for all-around defense with trenches, foxholes, obstacles, and emplacements. Tactical unity is maintained in each defensive area. A considerable proportion of available firepower is deployed forward and a reserve, rarely in excess of one-third of the force, is held out initially. Its purpose is to counterattack, to occupy blocking positions in depth or on the flank, or to replace the garrisons of defended areas.

b. The concept of this defense is that the battle position will be held by defeating the enemy by fire in front of the position, by absorbing the strength of his attack within the position, or by destroying him by counterattack.

286. Variations of Position Defense

a. The ideal position defense permits the maximum application of all of the fundamentals of defense. However, such ideal conditions will seldom exist, thereby necessitating the adoption of a variation which limits the application of one or more of the fundamentals.

b. When the frontage of the sector is too wide to permit the maximum application of all of the fundamentals, the commander must determine which fundamental(s) can be sacrificed with least detriment to the mission. If conditions dictate the retention of a strong reserve to achieve flexibility, the intervals between organized tactical localities must be increased, thus reducing mutual support. When conditions demand maximum initial firepower forward, the number of organized tactical localities must be increased at the expense of the

reserve, thus increasing mutual support to the detriment of flexibility and depth.

c. The number of variations of the position defense are limited only by the ingenuity of the commander and the size and composition of the forces available, including fire support. Stereotyped positions should be avoided. Variations may be in the form of a single line of defense organized to achieve maximum initial firepower forward; a series of lines of defense designed to provide both strength and deception; or a series of tactical localities organized in width and depth to force the attacker to expend his momentum.

287. Mobile Defense

a. General. Mobile defense is that method of defense in which forward defensive positions are occupied by the minimum forces necessary to warn of impending attack, canalize the attacking forces into less favorable terrain, and block or impede the attacking forces, while the bulk of the defending force is employed in offensive action to destroy the enemy at the time and place most favorable to the defender. If conditions are favorable, the offensive action may be launched early enough to strike the enemy in his attack position. Although the armored division is particularly adaptable to the mobile defense, an infantry division may also be effectively employed in the mobile defense when conditions warrant such employment.

b. Forward Defensive Positions. The forward defensive positions may consist of any combination of the following:

(1) *Islands of resistance.* An island of resistance is an area organized with all-around defense to hold that terrain which is vital to the scheme of maneuver of the striking force. It may hold a shoulder to prevent the expansion of a penetration, defend dominant observation that controls fires in support of the action of the striking force, or prevent an enemy advance into an area where our striking force would be at a disadvantage. Islands of resistance should normally be of regiment or similar size unit as a minimum. Units smaller than regiments cannot control a sufficient area within their perimeter to allow dropping of supplies or landing of evacuation aircraft or helicopters. Further, sufficient supporting weapons cannot be included within the perimeter of units smaller than regiments.

(2) *Strong points.* Strong points consist of teams varying from a few men to a reinforced company in size. They occupy positions, which may or may not be mutually supporting, across the forward defensive area where avenues of enemy approach enter the sector. Their mission is to deceive the enemy, warning of impending attack, canalize the enemy into

less favorable terrain, and block or impede the advance of the attacking force. They do not always hold their initial position, however, and may fight delaying actions where necessary. A commander reinforces the strong points if the situation warrants.

(3) *Observation posts.* Observation posts of varying size are located to the front of and in the intervals between strong points and islands of resistance. It will be largely on the information received from them that the commander will base his decision on the commitment of his striking force. These observation posts may be sent out from the islands of resistance and strong points, and as such may fulfill the functions of the combat outposts in the position type defense.

c. The Striking Force. The remainder of the forces not absolutely necessary to man the forward defensive positions are organized into a mobile striking force whose mission is to destroy the enemy force at a time and place of the defender's choosing. The striking force may be assembled in one or several areas, depending on width of sector, terrain, enemy capabilities (to include air and mass destruction), and planned manner of employment. It should be strong in armor.

Section IV. ORGANIZATION OF THE DEFENSE

288. General

The organization of the ground, organization of fires, and tactical organization are one integrated whole. They are discussed separately to facilitate comprehension and reference.

289. Terrain Analysis

a. Proper utilization of the terrain permits the commander to maximize the effectiveness of his forces and minimize the effectiveness of the enemy. A general study of the terrain is directed toward determination of those critical areas which must be denied to the enemy in order to accomplish the defender's mission. Based on this study the area for defense is selected.

b. The selected terrain is further analyzed and reconnoitered to determine how it can best be utilized in light of the composition and relative combat power of opposing forces. This analysis is made in terms of critical terrain features, avenues of approach thereto, observation and fields of fire, obstacles, cover and concealment, and routes of communication. In addition to its important bearing on the type of defense, a thorough terrain analysis will frequently give valuable indications as to probable enemy assembly area, artillery positions, observation, and avenues of approach.

290. Selection of Position

a. In selecting the position, or area, in which decision will be sought, seldom will a position be found which satisfies all requirements. The first criterion is that the successful conduct of a defense of the position or the area selected will accomplish the mission and facilitate future operations. This may require that the defense be conducted on terrain other than that best suited to the composition and capabilities of the defender. The position, and the force within it, must be such that the enemy must attack it or bypass it only at the risk of serious threat to his flank or rear.

b. Within the limitations imposed by the mission, a position or area is selected which permits the commander to maximize the capabilities of his forces and minimize those of the enemy. Thus, the commander of a force comparatively heavy in armor will wish to defend in an area in which it can be used effectively, while a commander opposed by a force heavy in armor will seek the decision in an area in which its effectiveness is reduced.

c. The position or area selected must provide for effective observation and fields of fire, forward of and throughout its depth and width, in order to keep the enemy under continuous fire and thus achieve maximum disruption of his attack. It must provide for retention of critical observation, for cover and concealment, and for routes of movement within the position. It should provide suitable positions for the security forces. Good defensive terrain in depth is also desirable. It is highly desirable that the position contain natural obstacles to the movement of enemy forces so that his attack is impeded, rendered less effective, or canalized into areas in which the defender is prepared to meet him. Known characteristics of the enemy, such as tendency to infiltrate into terrain affording poor observation, should be considered. The strength and weaknesses of the terrain selected for defense should be evaluated from the viewpoint of the enemy.

d. At higher echelons, successive positions are considered. They should be such as to require a reorganization of the enemy before a new attack can be launched; however, they should be sufficiently close to permit their utilization in conjunction with switch or blocking positions.

291. Organization of the Ground

a. General. The ground is organized to bring accurate fire on the enemy while avoiding his fire, and to impede his movement while facilitating our own.

b. Priority of Work. Measures for increasing the effect of fire take precedence over field fortifications. Concealment and camouflage are provided for concurrently with the organization of the ground. When observation, fields of fire, and individual cover have been provided for,

the construction and improvement of the various defensive works and obstacles, and the preparation of routes of approach for supplies and reserves is undertaken.

c. Obstacles (Barrier Systems, Minefields). The purpose of obstacles is to prevent the enemy from closing with the position, to hold him under flanking flat trajectory fire, and to canalize his attack into killing areas or where the reserve can be used effectively. Wire entanglements are located so that their outer edges can be covered by flanking fire. Other obstacles are coordinated with demolitions. All obstacles are covered by fire to hinder their removal or breaching. If possible, they should be concealed from hostile observation. Minefields are used to strengthen natural obstacles, to cover likely avenues of enemy approach and to protect exposed flanks. Barrier and denial plans are coordinated with adjacent units and conform with the barrier and denial plan of superior echelons. For details of land mine warfare, see FM 5–32.

d. Use of CBR Munitions. Chemical, biological, radiological munitions may be used effectively against troop concentrations, assembly areas, materiel and supplies. Persistent chemical casualty agents may be employed effectively to form barriers and to reinforce other obstacles and demolitions. Flame land mines and emplaced flame throwers are especially effective against assaulting enemy infantry. Smoke may be employed to neutralize enemy observation, and to create confusion in assault formations of enemy infantry and armor. For the counteroffensive use of CBR Munitions, see paragraph 251. For details on the use of CBR Munitions, see FM 3–5.

e. Defensive Works. The construction of defensive works is limited only by the time and means available. Troops and weapons should have the maximum practicable protection. Field fortifications are located so as to cover all avenues of approach. They are protected by barbed wire. In stabilized situations adequate drainage must be considered. The overhead cover provided varies with the location of the troops to be sheltered and enemy capabilities. Dugouts, concrete, log and dirt, or steel shelters have permanent value against fire. Alternate and supplementary works are prepared in accordance with the priority of work. For details on construction of field fortifications see FM 5–15.

f. Communication Routes and Trenches. Routes of communication are improved throughout the position to facilitate movement of supplies and forces, particularly the reserve. Communication trenches are built where necessary to facilitate the exercise of command and the movement of troops and supplies. These trenches are sited so as to conceal from the enemy the location of the combat emplacements.

g. Deception. Dummy works mislead the enemy and disperse his

fire. Substitution of real weapons, at the last minute, for previously discovered dummy works may achieve surprise.

h. Rear Positions. At higher echelons such as army and army group, simultaneous with the preparation of the battle position, a rear position is selected to give flexibility to the defense. It is so located that it may be organized without enemy interference and it will require him to reorganize prior to continuing his attack. A rear position is always selected. Its organization utilizes available indigenous resources and so much of the troop resources as will not jeopardize the preparation of the main position.

292. Organization of Fires

a. Mission. The fire of organic weapons and available fire support is coordinated to—

(1) Bring the enemy under effective fire as early as possible.
(2) Subject the enemy to progressively heavier fire as he approaches the defensive position.
(3) Destroy the enemy by fire if he succeeds in penetrating the position.
(4) Support the counterattack.

b. The Fire Plan. The fire plan at any echelon consists of the planned distribution of fire support available to that echelon and the fire plans of the subordinate echelons. *Systematic flanking fire by automatic weapons of frontline units supplemented by the fires of other weapons constitutes an essential basis for the defensive dispositions.* Thus, the fire plans of frontline units are the basis of the entire organization of fire.

c. Preparation of the Fire Support Plan.

(1) The fire organic to any echelon is usually not adequate to its requirements. Deficiencies in fire are made up by support from the next higher echelon which distributes its available fire support in accordance with that commander's priority and policy. This process is repeated from company to field army in order best to allot the available infantry mortar, artillery, naval gunfire, combat aviation, guided missile, and atomic fires. Each type of fire support is placed on targets most suitable to its characteristics. The various arms and agencies develop doctrine and procedures which will accomplish the missions cited in *a* above.
(2) In the defense, the barrier plan, including the demolition plan, location of defensive positions, the counterattack plans, and the conduct of the defense are coordinated with the fire support plan in order to—anticipate the development of lucrative targets, and facilitate target acquisition; exploit

targets before they disperse; and expedite procedures to employ fire support, including atomic weapons.

d. Atomic Fire Support. Aggressive and continuous target acquisition is necessary in order to provide the timely information necessary for the successful employment of atomic weapons against an attacking enemy. For additional details see FM 100–31 and other appropriate Department of the Army publications.

e. Air Support. In the defense it is probable that the enemy will accompany his ground attack with a strong air offensive. To preserve freedom for the defender, especially for the movement of the reserve, the major air effort is directed against the enemy air force. This may result in limited interdiction and/or close air support. Radar control close support bombardments during darkness and other periods of poor visibility are effective in disrupting enemy attack formations.

293. Tactical Organization

a. General. In the position defense there are three tactical groupings; the security forces, the holding garrison, and the reserve. Security forces are discussed in section II.

b. The Holding Garrison.

(1) The holding garrison is that portion of a defending force charged with the immediate defense of the battle position. It organizes a series of defense areas selected with consideration for their observation and natural defensive strength so that their retention will insure the integrity of the battle position. Each defense area is organized into a number of mutually supporting strong points disposed irregularly, and organized for their own all-round defense and the all-round defense of the defense area with trenches, foxholes, obstacles, and emplacements covering avenues of approach thereto. Tactical unity is maintained for each defense area and strong point.

(2) Defense areas are distributed in width and depth. The width of the sectors assigned to frontline units of the holding garrison depends upon—the natural strength of the terrain; the avenues of approach leading into the position; the capabilities of the enemy; the availability of defending forces; and the relative importance of the sector. Defense areas are distributed in depth so as to provide mutual support, to limit enemy penetration of forward defense areas, to diminish the effect of hostile fire, to provide continuity to the defense, and to establish a base of fire to support counterattacks.

(3) The holding garrison should generally consist of infantry. Armor holding a defense area sacrifices its outstanding characteristics of mobility and shock action. Tank units organic

or attached to infantry in the holding garrison, have two primary missions—antitank defense of the battle position, and counterattack against local penetrations.

c. The Reserve.

(1) The reserve is used to execute counterattacks, to block hostile penetrations, to extend the flanks of the battle position or occupy a rear position, to reinforce or replace frontline units, to deal with guerrillas or infiltrators, or to cover a retrograde movement. Plans are prepared for the employment of the reserve against all major foreseeable contingencies.

(2) Those elements of the command with the most mobility and shock action are normally held in reserve initially. Artillery is not normally held in reserve.

(3) The reserve should be located so that it can best execute prepared plans for its employment taking into consideration the probable direction of the enemy main effort, the terrain, routes of communication, concealment, and the need for security.

294. Control and Coordination

a. The commander of defending forces insures coordination and control by announcing his concept of the operation and his defensive plan, by providing for adequate communications, and by employing control measures such as boundaries, phase lines, and limiting points. It is essential that subordinate commanders thoroughly understand the concept of the operation in order that they may act intelligently in the absence of instructions.

b. Reliable communications are essential both to the collection of information and to the issuance of orders. The commander who finds himself without communications fights blindly. It is therefore essential that *alternate means be provided* that will insure communications throughout the battle. This may be accomplished by the use of lateral lines to adjacent units, alternate lines to subordinates, and the use of multiple means.

c. Limiting points and boundaries provide additional means to the commander for coordinating the actions of subordinate elements. They should be readily identifiable on the ground and should provide for unity of responsibility for critical areas. Boundaries are extended forward of the main line of resistance. Divisional boundaries are extended to the range of weapons supporting all divisional units, including that of artillery attached to or supporting the general outpost. Boundaries between front line regiments and battalions are extended forward at least to the limit of ground observation, including that of the combat outposts. Boundaries are extended to the rear of the main line of resistance to provide for the positioning of reserves

and supporting units, to assign areas of responsibility for defense against infiltration and airborne attacks, and to best utilize the existing road net for movement within the position.

d. Since the rapid concentration of artillery fire is essential to a successful defense, centralized command of the artillery is preferable. Every effort is made to meet the hostile main attack with the mass of the artillery fire.

Section V. CONDUCT OF THE DEFENSE

295. Sequence of Defensive Action

a. In the initial stages of the defense, intelligence is particularly important in order to determine the probable strength, composition, direction, and time of the enemy attack. Therefore, aggressive reconnaissance by both ground and air is essential. Good intelligence permits the defender to retain the maximum degree of initiative.

b. As the situation develops, enemy troop concentrations, artillery, command installations, and supplies are taken under *long range fires by all means available.* Supporting weapons of the defender must be well forward during this phase.

c. As the direction of the enemy's main attack becomes apparent, troops are shifted or emplaced to meet the threat. Consideration should be given to launching a limited objective attack for the purpose of disrupting the enemy preparations. Enemy assembly areas are taken under fire with all available fire support means. As the enemy launches his assault, all available defensive fires are brought to bear against the assaulting forces.

d. In order to maintain continuity in the defense or to retain a suitable reserve for later decisive action, it may be desirable to withdraw on a portion of the front. Such action requires personal leadership by all commanders concerned, careful prior planning, and well-trained troops. However, a unit entrusted with the defense of a tactical locality never abandons it unless authorized to do so by higher authority.

e. The defender at every echelon must take advantage of every opportunity to regain the initiative. Such opportunity frequently is offered when an enemy attack is repulsed, immediately after the enemy has seized an objective but has not yet completed his reorganization, or when an enemy force is already closely engaged elsewhere.

f. For transition to the counteroffensive, see section VII, this chapter.

296. Counterattack

a. General. Counterattacks are made either to restore the original position or to trap and destroy the hostile penetration at a point particularly favorable to the counterattack. They may be launched by

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local reserves or by the reserve of higher echelons. Reserves are committed only when their employment will result in decisive action, except in emergencies. Rather than commit the reserve in indecisive action, it is frequently better to permit enemy penetrations and to save the reserve for a decisive counterattack after the enemy has expended the momentum of his attack. The counterattack should normally not be launched until it has been determined that the enemy main force has been committed.

b. Local Counterattack. Local counterattacks are so organized that all elements of the counterattack are under a single commander. They are generally launched to regain key terrain and therefore can be preplanned, reconnoitered, and rehearsed. When launched, they should exploit the temporary enemy confusion and disorganization inherent after the seizure of a position. The next higher commander is informed when local counterattacks are made. Local counterattacks are not launched against strong enemy penetrations; in such situations local reserves block the penetration while reserves of higher echelons counterattack. This is to prevent the sacrifice of depth in the position and the frittering away of local reserves whose use may be part of large scale counterattack plans.

c. Major Counterattacks. Considerable time is required for the execution of a major counterattack. Sufficient reserves must be assembled and adequate fire support, using all available agencies, must be arranged. Assembly areas, zones of action, objectives, and time of attack are clearly specified in orders. Whenever practicable, the counterattack is launched against the shoulders or flanks of the hostile salient. Advance planning for such an operation is essential in order to reduce to a minimum the time required in final preparation. Where the counterattack is the principal defensive means, rapid disengagement of the counterattacking force must be insured in order to be prepared for subsequent employment.

297. Relief in Place in the Defensive

a. Where the defense continues for a prolonged period, the necessity for conservation of the fighting power of the troops requires provision for the periodic relief of units. For the sake of continuity in the defense, the relief is executed by echelons, normally from rear to front.

b. Secrecy in planning and conducting the relief is essential to its successful accomplishment. The relief should be carried out under cover of darkness, and in sufficient time to permit the bulk of the relieved force to be beyond artillery range prior to daylight. Careful planning and proper supervision will prevent congestion of incoming and outgoing troops at critical points.

c. The relief should be preceded by a detailed reconnaissance of the sector by commanders and staffs of the relieving unit, down to and

including platoon leaders. Commanders familiarize themselves not only with the disposition of the defending force, but with the known hostile dispositions on their part of the front. Arrangements are completed for the transfer of minefield records, supplies, and special equipment to be left on the position. An overlap in the arrival and departure of key personnel of the relieved and relieving units facilitates the relief.

d. The execution of the relief takes place under the direction of the commander of the unit to be relieved; he usually remains responsible for the defense of the sector until the relieving units are in position and communication and control have been established by the incoming commander.

Section VI. SPECIAL CONSIDERATIONS

298. Defense Against Armor

a. General. Antitank defense of an area is provided by the fires of all weapons which will delay or destroy armored vehicles, natural and artificial obstacles, especially minefields. The antitank defense fires are an integral part of the defensive fire plan. It is designed to stop enemy armor in front of the battle position and to provide continuous resistance to enemy armor throughout the width and depth of the defended area. The greatest resistance is offered on the most likely avenues of approach and those of greatest importance to the defense.

b. Organization of the Ground. Whenever practicable, defended areas should be located behind natural obstacles which will impede or restrict the movement of attacker's armor. Available natural obstacles are improved and artificial obstacles are constructed to lengthen or connect them. Antitank minefields are located to deny favorable areas of approach for enemy armor and, in conjunction with other obstacles, to canalize enemy armored attacks into the best fields of fire for antitank weapons. Antitank and antipersonnel mines must be employed throughout the width and depth of the position to assist in containing penetrations, preventing breakthroughs in lightly held areas, and protecting artillery and reserves. Units assigned to forward defense areas locate organic and attached antitank weapons in concealed positions to cover likely avenues of approach for enemy armor and to achieve mutual support with adjacent defense areas. Units organizing positions in depth locate antitank weapons to support forward defense areas, cover gaps between forward defense areas, and to block penetrations of these areas.

c. Conduct of the Defense. Tactical aviation is employed against enemy armor as it prepares for the attack. It is capable of neutralizing armored threats before they arrive within range of ground

weapons. As enemy armor forms for the attack, artillery masses its fire on likely assembly areas and defiles leading from such areas. As enemy armor approaches the battle position, it is engaged by long-range antitank guns located in depth. If the enemy armor succeeds and infantry fires separate enemy armor from supporting infantry and seek to prevent the enemy from clearing paths through minefields. If the enemy armor succeeds in reaching forward defense areas, it is engaged by short-range antitank weapons of the infantry and long-range antitank guns located in depth. If the enermy armor succeeds in overrunning forward areas, defense areas located in depth seek to stop or canalize the advance. Infantry troops defending forward areas must remain in position to prevent enemy infantry from accompanying its armor. Reserves heavy in armor are then committed to destroy such penetrations by counterattacking the flanks. Should forward divisions be unable to destroy or eject armored penetrations they contain them from prepared positions while the armor of higher echelons counterattacks. Breached obstacles, including minefields, must be promptly reestablished after the enemy armor has been repulsed.

299. Defense Against Mass Destruction Weapons

a. If the enemy has the capability of employing mass destruction weapons (includes atomic and CBR) commanders intensify appropriate individual and unit training in defense against these weapons.

b. Defensive measures include—shelter, damage control plans and organization, dispersion of units and facilities, individual protection, and counterreconnaissance and counterintelligence efforts to prevent the enemy from discovering lucrative targets. At higher echelons, electronic countermeasures, deception, clandestine intelligence, and destruction of enemy mass destruction weapons capabilities are employed.

c. The commander considering defensive measures against mass destruction weapons must decide the balance required between dispersion and control, and between protection and combat readiness. As in all military operations, this balance must include a calculated risk in order that the mission can be accomplished. Thus, an improper balance which overemphasizes dispersion and protection may permit the enemy to accomplish his purpose with only a threat of using atomic weapons. A division properly deployed in the position defense does not present a highly remunerative target for atomic or CBR attack. Of all the division's installations, the reserve and the artillery are the most vulnerable; however, proper dispersion and protective measures can reduce this vulnerability to an acceptable point. Similarly, a mobile defense properly deployed should not present highly remunerative targets. Particular emphasis should be placed on the dispersion

of its reserve both in bivouac area and in movement to the counterattack. Rapidity of movement is an excellent defense because the enemy may take considerable time to deliver atomic or CBR weapons even after a target is located.

d. At higher echelons, the above considerations are equally applicable; however, there are others which should be emphasized also. Enemy atomic attacks probably will be followed by attempts to exploit the resultant confusion. Thus, these attacks should be considered as a warning signal for mobile reserves to prepare for employment in counterattacks or in blocking roles. The threat of enemy use of atomic weapons requires that plans be prepared for replacement of complete tactical units.

300. Defense Against Airborne Attack

a. Characteristics of Airborne Attack. Airborne attacks are characterized by—speed; flexibility in choice of objectives; mass; the limitations of weather; the need for landing areas; a lack of motor transport, heavy fire support, and armor; and an abundance of tactical air support.

b. Plans and Training for Defense Against Airborne Attack.

(1) Tactical commanders are responsible for airborne defense plans and training in the combat zone; in the communications zone this is the responsibility of area commanders. Such plans integrate all means such as friendly partisans, militia, civil defense, and service troops. *The latter must be trained to protect their installations against airborne attack and against the guerilla action and infiltration which may be concurrent with an airborne attack.* Seldom will it be possible to divert combat troops for this purpose except in the case of large scale attacks.

(2) Plans must provide for—the support of the combat forces; the defense of logistical establishments; an adequate communications system with alternate channels to disseminate intelligence of enemy airborne attacks; evacuation or destruction of supplies and equipment to prevent their use by the enemy, and strict discipline in rear areas.

c. Intelligence. The intelligence required for planning local defense includes—the location of possible drop and landing zones and logical airborne objectives; subversive or partisan elements of the indigenous population capable of assisting the airborne forces; avenues of approach to drop or landing zones; and possible defensive positions for friendly defensive forces.

d. Tactical Organization of the Defense. Defending forces comprise: local security elements such as combat detachments and motorized patrols to observe likely landing areas; local security detachments

to defend installations and critical areas; mobile striking forces to counterattack the airborne force; and a mobile reserve.

e. Organization of the Ground. The ground is organized by construction or improvement of antiairborne obstacles in likely drop and landing zones and by blocking the avenues of approach from such areas to critical installations.

f. Conduct of the Defense. The key to a successful defense is rapidity in launching local counterattacks against the airborne force before it can become organized and augmented. Armor available as local mobile striking forces is committed rapidly to take advantage of the vulnerability of the airborne force to armor attack. If more troops land and succeed in consolidating, local forces defend and form the base for counterattack by the mobile reserve. As soon as the enemy main landing is determined, the mobile reserve is committed against it.

g. For additional details see FM 31-15.

301. Defense Against Guerilla Action and Infiltration

a. General. Defense against guerilla action and infiltration is closely integrated with other defensive operations. Guerilla action and infiltration are characterized by speed, surprise, deception, and decentralized operations. Guerillas employ automatic weapons, grenades, demolitions, and possibly light artillery. Any installation, unit, or area is subject to attack by guerillas. The first essential to defense against these attacks is that *all troops, service or combat,* must be trained to repel these attacks and to destroy the attacker. Seldom will it be possible to divert combat forces for protection of rear areas. Swamps, forests, large cities, and mountainous or jungle areas provide good cover for guerillas and infiltrators. Such areas should be searched and mopped up or, if this is impracticable, isolated and observed.

b. Intelligence and Counterintelligence Requirements.

(1) The special requirements for intelligence necessary to defend against guerillas and infiltrators includes—areas suitable for hide-outs, identity of guerilla leaders and civilian supporters; communication facilities; and sources of supply. Special means for securing information include: planting agents within the guerilla forces; monitoring guerilla communication facilities; and using local civilians to report guerilla movements and locations.

(2) The effectiveness of guerillas and infiltrators depends in great measure on intelligence available to them. For this reason great care must be taken through secrecy, deception, and screening of indigenous civilian employees to prevent

accurate information of operations and troop movements from falling into the hands of guerillas and infiltrators.

c. Defense Against Guerilla Attack. Defensive plans are closely correlated with the political, administrative, and economic aspects of the area. Continuity of command and policy are essential. Special provisions are made for ground and aerial reconnaissance of rear areas, mutual assistance by adjacent units, defense of the perimeters of installations and critical areas, armed escorts, the use of friendly civilians as guides, agents, or antiguerilla units, and the maintenance of ready reserves to take offensive action against guerilla forces.

d. Prevention of Infiltration. Measures which tend to prevent infiltration are—extensive counterreconnaissance, combat patrolling and ambushing by frontline units (particularly at night and in gaps between units); the use of war dogs; battlefield illumination; and the systematic search of captured terrain. Barbed wire, trip flares, mine fields, booby traps, and other antipersonnel obstacles and warning devices along possible routes into and through friendly lines also assist. Frequently, enemy personnel disguised as civilians will mingle with refugees passing through the frontline areas. Counteractions include the systematic search of all civilians moving toward the rear, strict channelization of their movement, and the establishment of collecting points for detailed interrogation. Once infiltrators have penetrated to rear areas, they operate in the same manner as guerillas. Therefore, defensive and offensive measures adopted against guerillas are applicable to infiltrators.

e. Separation of Guerillas from Civilian Support. Guerilla forces cannot exist without civilian support. Consequently, every effort should be made to prevent them from receiving this support. Such an effort consists of physically isolating guerilla forces from each other and both physically and psychologically separating them from the civilian population. This requires gaining and maintaining the support of the indigenous population. This can best be accomplished by the establishment of good will between the civil population and the military forces; and rewards for friendly assistance, and punishment for collaboration with guerillas. In those instances where control of the indigenous government is vested in the commander adherence to principles of good military government will do much toward accomplishing the above. Propaganda, followed by implementation of promises, plays an important part in winning the good will and trust of the local populace.

f. Offensive Actions Against Guerillas. Once guerilla forces have been located in the area, immediate steps are taken to initiate offensive action against them. Friendly forces so employed must be adequate to insure success, since failure will embolden the guerillas and encourage others to support and join them. Where terrain permits,

armor and artillery should support the attacking force. Tactical air support is provided and Army aircraft are used for reconnaissance, control, and observation of fires. Surprise and coordination with adjacent commands are essential. The most effective method of destroying guerillas is to encircle them, blocking all avenues of escape simultaneously to prevent withdrawal of the guerillas prior to the attack. Airborne troops are particularly effective in this type of operation. Where terrain, lack of time, or insufficient troops preclude encirclement, enveloping attacks are launched followed by aggressive pursuit of the hostile forces which succeeded in withdrawing or which were dispersed during the main engagement.

g. Composition of Antiguerilla Forces.

(1) Forces employed to combat guerillas may be furnished by either combat or service troops. Small mobile units may be formed by troops manning logistical installations to attack and destroy small guerilla bands operating in the vicinity of the installation. The destruction of strong guerilla forces or those widely dispersed is usually executed by combat units.

(2) Special antiguerilla units supplemented with screened civilians who act as guides and interpreters, may be formed to conduct prolonged operations, using guerilla methods. These units are principally employed to destroy small guerilla bands, harass guerilla communications and supply, and, in conjunction with other antiguerilla units or combat units, attack and destroy large guerilla forces.

h. References. For details see FM's 31–15, 20, and 21.

302. Air Defense

a. General. Air defense includes all measures designed to nullify or reduce the effectiveness of the attack of hostile aircraft or guided missiles after they are airborne. Air attacks are characterized by speed of execution, flexibility in choice of objectives, and wide variation in intensity of force applied.

b. Responsibility for Defense Against Air Attack. All units are responsible for their own security against air attack.

(1) *In the combat zone.* The field army commander is responsible for the air defense of his area. He coordinates closely with the tactical air force commander. Details of this coordination are attained through the joint operations center; liaison between antiaircraft and tactical air control agencies; and prior agreement as to restricted areas, rules for engagement, identification, and AAA action status.

(2) *In the communications zone.* Responsibility for general air defense in the communication zone is prescribed by the theater

comander. Usually the responsibility is delegated to one commander. The latter may command a unified command or be the theater Air Force Commander with operational control of other air defense means.

c. Detection of Impending Enemy Air Attack. The cornerstone of any air defense system is the early detection of hostile airborne objects. Early intelligence of enemy air movements within our oversea theaters of operations must be provided to our forces and the civilian populations. Current facilities for early warning include the following: information from the supporting air force units; information from army surveillance, acquisition, and gun laying radars; information from navy units; visual observation of the AAAIS; and clandestine intelligence activities.

d. Communications. Communications must be provided to interconnect the warning system with the air defense command posts and the forces engaged in air defense. All means of communications must be exploited to the maximum in order that all elements of the air defense system may be kept continuously informed of the progress of the air battle, so that these elements may be utilized to the fullest extent in repelling the enemy. Communications must also provide adequate warning to units not in the air defense system, in order that they may take appropriate measures to minimize the effect of the air attack.

e. Means of Air Defense. The defense against air attack is conducted by active and passive measures. The active measures are—Air Force and Naval interceptor planes; antiaircraft artillery; and electronic countermeasures. Passive measures are those which are taken by both the civilian and military agencies before and during the enemy attack to reduce the effectiveness of the attack. They include—public information and education, air raid warning, dispersion, camouflage and deception, large area smoke screens, and shelter. Area damage control measures are taken by both civilian and military agencies during and after the attack to minimize the effects of enemy air attacks. They provide medical, fire fighting, emergency utility, bomb disposal, repair, and decontamination (chemical, biological, and radiological) services.

Section VII. TERMINATION OF THE DEFENSE

303. Transition to the Counteroffensive

An attacking enemy through his own maneuvers, losses, errors, exhaustion, or other cause, may be placed in such an unfavorable position that the advantage passes to the defender. The latter then has a prospect of success in a counteroffensive which aims at the defeat

and destruction of the opposing force. It is conducted as an offensive operation (see ch. 8).

304. Transition to a Retrograde

Should the situation change to one requiring retrograde movement, the operation is conducted accordingly (see ch. 10).

CHAPTER 10

RETROGRADE MOVEMENTS

Section I. GENERAL

305. Types

A retrograde movement is any movement of a command to the rear or away from the enemy. Retrograde movements are further classified into withdrawal from action, delaying action, and retirement. They may be forced by enemy action or may be made voluntarily. A force executes a retrograde operation voluntarily only when a distinct advantage is to be gained. In either event such an action must be approved by the higher commander; to be successful it must be executed according to well organized plans. A disorganized retrograde operation in the face of enemy strength invites disaster.

a. Withdrawal from action is an operation by which all or a part of a deployed force disengages from the enemy in order to position itself to initiate some other action.

b. A *delaying action* is an action in which space is traded for time and maximum punishment is inflicted on the enemy without becoming decisively involved in combat.

c. Retirement is an operation in which a force avoids engagement under the existing situation by moving away from the enemy without direct pressure.

d. Combination of types. Within a large command which is in contact with the enemy a combination of these types usually is necessary, either simultaneously by adjacent units, or by one developing into the other. For instance, a retirement may be preceded by a withdrawal from action. A retirement may be covered by a force executing a delaying action.

306. Purposes

a. Retrograde movements are executed to accomplish one or more of the following:

(1) To disengage from combat.
(2) To avoid combat under undesirable conditions.
(3) To draw the enemy into an unfavorable situation.
(4) To gain time without fighting a decisive engagement.
(5) To place forces involved in a more favorable position in relation to friendly troops.
(6) To permit the use of a portion of the force elsewhere.

b. Each of these operations is primarily a defensive action; each involves movement to the rear; each seeks to gain time or more favorable conditions for combat; and each involves a sacrifice of terrain.

307. Influence of Terrain and Weather

a. Terrain has a decided influence on all retrograde movements. Good observation and fields of fire are desirable to permit engagement of the enemy at long ranges. Obstacles, both natural and artificial to include barrier systems, denial areas, minefields and demolitions in combination with the effective use of CBR and atomic munitions, are exploited to strengthen defenses, protect exposed flanks, and impede the enemy advance. Cover and concealment are sought for assembly areas and routes of movement. Road nets are exploited by friendly forces, especially by armor and motorized forces, to expedite their movement and to facilitate control of their operation; they are denied to the enemy for these reasons.

b. Weather has a significant influence on the conduct of retrograde movements. It affects observation, trafficability, control, and the performance of personnel and functioning of material.

308. Mobility

It is preferable, although not always possible, for forces engaged in retrograde operations to have mobility equal to or greater than that of the enemy. Maximum use must be made of available transportation to expedite the movement of troops to rearward positions, to conserve energy, and to gain necessary time for the preparation and occupation of new positions.

309. Control and Coordination

Successful retrograde movements demand effective control and coordination.

a. Planning must be centralized and operations decentralized. The fluidity of operations requires detailed and complete plans and maximum integrity of units to compensate for operations over extended areas which tax command and control facilities.

b. Adjacent units must coordinate disposition and movement of forces to insure mutual understanding of operations on their flanks. Clear delineation of zones of action and other responsibilities throughout the operation must be insured.

c. Designation of successive rear boundaries of divisions and higher units is required to insure responsibility for supplies and facilities, including responsibility for their evacuation or destruction.

d. Reliable signal communications, employing all means consistent with restrictions of communications security, are essential to insure continuous communication among all elements of the command.

e. Effective planned control of civilian and military movements is essential to reduce congestion, expedite tactical moves, minimize interference, and insure maximum use of available road nets.

310. Security and Deception

a. Air and ground protection of the front, flanks, and rear of the forces in position and during movement must be insured at all times (see ch. 6). Special security measures are required in retrograde movements; commanders habitually prescribe these in orders. Particular attention is paid to the control of the civilian population and to guerrilla activity.

b. Deceptive measures are adopted in retrograde movements to force early deployment of enemy forces, to deceive the enemy as to the strength and disposition of friendly forces, and to conceal the time and place of troop movements.

311. Air Support

Combat aviation is employed against hostile aircraft and to delay the hostile advance by harassing and interdicting hostile ground forces at critical localities. Reconnaissance aircraft report the location and disposition of enemy forces. Fixed and rotary wing aircraft may be used to rapidly withdraw troops, equipment, and supplies.

312. Logistics

Supply discipline is rigidly enforced. The effect of retrograde movements on logistical support must be anticipated to—insure adequate support for the operation, prevent the unnecessary destruction or loss of supplies, avoid unnecessary back hauling of supplies, provide for the destruction of supplies and equipment not evacuated, and provide prompt evacuation of casualties. This is done by curtailing the flow of supplies into the forward areas, by initiating early evacuation of surplus supplies, and by providing extra transportation for this evacuation. Equipment and supplies cannot be destroyed without authority from the responsible commander. Therefore, the commander who directs a retrograde operation authorizes the destruction of supplies which cannot be evacuated and fixes responsibility for their destruction.

313. Demolitions

The demolition policy of the force executing a retrograde movement must be carefully considered in relation to the purpose of the movement and the contemplated subsequent actions of the force as a whole. Widespread demolitions during the retrograde movement may become a greater handicap to our forces during a counteroffensive through the area than to the enemy during our retrograde movement.

314. Morale

Commanders must not permit retrograde movements to become detrimental to morale. It is imperative that an aggresive attitude be maintained. This requires thorough planning, efficient control and supervision, and competent leadership at all levels. Orienting troops, when possible, as to the purpose of the operation, and continued attention to the individual's needs contribute to the maintenance of morale.

Section II. WITHDRAWAL FROM ACTION

315. General

a. A withdrawal from action is classified as either a daylight or a night withdrawal. In either case, contact is maintained with enemy forces to prevent a rapid enemy advance, to deceive the enemy, and to provide for security.

b. The decision to withdraw by daylight is generally made only when a situation requires rapid action to save the command from disaster. Forces under direct enemy fire or observation lack freedom of action and may sustain heavy casualties in a daylight withdrawal from action. In order to obtain secrecy and retain freedom of action withdrawals from action should be made during periods of limited visibility, or before the enemy closes with the position. Counterattacks may be necessary to obtain this freedom of action. The decision for a night withdrawal should be made sufficiently in advance to permit planning, coordination, and time for subordinate units to conduct daylight reconnaissance.

c. Prior to initiating a withdrawal from action, a rearward position or assembly area must be designated for the withdrawing force. Assembly areas, if used, should favor the future employment of the command. The location of the rearward position should insure that the enemy must regroup his forces before renewal of an attack.

d. Orders and Actions.

(1) The withdrawal order should indicate the rear position, zones or routes of withdrawal, strength and conduct of security forces and other security measures, time and priority of withdrawal of units, early movement of administrative activities to the rear, evacuation of the sick and wounded, removal or destruction of supplies and material, and maintenance of traffic control.

(2) Zones of action and times of withdrawal are designated for infantry and armored units who are engaged with the enemy. Routes, priorities, and time of withdrawal are assigned to units not engaged. Phase lines are used to coordinate and control action. Check points are designated on primary roads or at critical defiles.

(3) Normally, it is necessary to echelon the withdrawal from action by maintaining a security force to protect the movement of the rest of the force. However, when the security of the force and available routes permit, all subordinate units may withdraw simultaneously. The security force may include armor, infantry, artillery, and engineers based on availability, the situation, and the size of the command. It's mission is to stop, restrict, or divert the advance of the enemy in order to permit the main force to disengage, assemble, and move to the rear. Success of this mission depends largely on the composition and location of this force and the skillful use of its fire or counterattacks to relieve hard-pressed units.

(4) Elements of the main force move to the rear in sequence usually from rear to front, and generally in the following order: elements moved in advance to prepare rearward areas for occupation; administrative and service units, who move early to insure their own safety and to clear the rear areas for the movement of combat elements; units in contact, who move at prescribed times directly to the rear to designated assembly areas. Artillery echelons move with the supported unit and provide continuous fire. The security force moves as required by its mission, which may include maintaining contact with the enemy, withdrawal at a designated time, or waiting until forced back by enemy action.

316. Daylight Withdrawal

a. General.

(1) Although a daylight withdrawal from action under enemy pressure is avoided whenever possible, the situation at times may dictate one. Successful daylight withdrawals from action depend on speed, control, and effective employment of a security force.

(2) A daylight withdrawal from action is facilitated by close terrain which limits enemy observation of friendly dispositions and which permits use of cover and concealment for assembly and movement of forces. On the other hand, open terrain, although favoring covering action by armor, offers the disadvantages of exposing friendly forces to enemy observation and fires and allows little secrecy as to the nature of the operation. Weather which limits enemy ground and air observation provides an advantage to the withdrawing forces.

(3) Visual contact is facilitated in daylight but the necessity to move more rapidly with greater dispersion under more effec-

tive enemy observation and fires increases the problem of control. Assembly areas, routes of withdrawal, circulation control, zones of action, phase lines, and hour and priority of movements must be designated in orders.

b. Security. Security forces necessary to cover the routes of withdrawal and the assembly areas of the main body from one or more positions are normally provided by the reserve. When the terrain permits, the occupation of a flank position is desirable to facilitate the withdrawal from action of the remaining forces and to force the enemy to execute a time-consuming maneuver. The commander makes special provision for antitank defense of road centers and other armored approaches that control the lines of communications to the rear, and the terrain features that afford extended observation over the area his force is covering. These forces must counterattack the enemy when necessary to free hard-pressed or closely engaged units of the withdrawing force.

c. Conduct.

(1) At the times indicated by the commander, infantry units in contact move, in deployed lines until disengaged, to local assembly areas. This disengagement may result from an unobserved or unopposed rearward movement or from action taken by the security forces as described in *b* above. The disengaged units then move to the new rearward position or assembly area, by motor if the situation permits. The security force withdraws through the rearward position conducting a delaying action until protected in turn by necessary security forces. Large armored formations normally move directly to the rear position or assembly areas. Usually the least heavily engaged units withdraw first. Unless an effective counterattack is insured, to withdraw hard-pressed units first may jeopardize the whole command. Armored units organic to or supporting infantry units not in the reserve are employed to protect flanks and assist in freeing local units closely engaged with the enemy.

(2) Artillery supports the disengagement of frontline units by intense fire upon leading hostile forces. Artillery units then echelon to the rear, maintaining continuity of supporting fires. In the last stages artillery support for withdrawing forces may be provided by the artillery with the general outpost force of the rearward position.

(3) Smoke should be used where weather conditions permit to provide concealment for movement and assembly of exposed units. Care must be exercised that smoke does not also provide a screen for the enemy's advance.

d. Without Enemy Pressure. If the enemy does not possess the capability of air attack in strength against the delaying forces as they move to the rear, and is not exerting sufficient pressure to force a daylight withdrawal, the commander may elect to execute a daylight withdrawal from action. If such is the case, the withdrawal from action may be conducted along the lines laid down in paragraph 317.

317. Night Withdrawal

a. General.

(1) Successful night withdrawal from action depends primarily upon deception, secrecy, and control. Limitations placed by darkness upon hostile air and ground operations must be exploited. Maximum advantage is taken of deceptive measures by the maintenance of normal activities including aggressive patrolling.

(2) Night withdrawals from action are facilitated by the use of open terrain when light conditions limit enemy ground and air observation of troop movements. However, warning orders must be issued to permit necessary daylight reconnaissance.

(3) Difficulties of visual contact in darkness, need for signal security to prevent enemy detection of the withdrawal, and increased movement on roads requires effective movement control. This is accomplished by detailed orders, disseminated in time for necessary reconnaissances, planning, and execution by subordinate units. Times, routes, priorities, phase lines, assembly areas, and rearward positions must be clearly defined.

b. Deception and Security.

(1) Frontline units leave detachments in contact to secure the assembly and movement of the main force. These detachments left in contact (small groups from each company in contact), attempt to deceive the enemy by giving the impression that the position continues to be held in strength. Some artillery remains in support of detachments left in contact. This artillery takes over the artillery mission of the command and its fires in order to avoid disclosing that a withdrawal is in process. The broad front upon which the detachments left in contact are employed normally prevents a single commander from maintaining effective control. Therefore, control is decentralized to sector commanders with the force commander coordinating their action. Effective signal communication, consistent with secrecy requirements, must be provided to insure control of the detachments left in contact. When practicable, transportation is made available to these

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detachments for use after disengagement to expedite rearward movement.

(2) Prior to commencement of withdrawal, additional security detachments of infantry and armor from each echelon protect the withdrawal of subordinate echelons by taking up positions around assembly areas, along routes of withdrawal, and on the flanks. Where possible, they take position prior to dark and cover all likely hostile avenues of approach, particularly those which may be used by enemy armor. These additional detachments are controlled by and rejoin the echelon which provides them when their security mission has been accomplished.

(3) Security of the rear position is normally provided by a general outpost force furnished by the major command. The mission of this force is to provide protection for the occupation of the rear position or assembly area and to cover the withdrawal of the detachments left in contact.

c. Conduct.

(1) At the initiation of a night withdrawal from action it is particularly important that detachments left in contact are prepared to execute their missions; the additional security detachments be in position; and the general outpost force moves early to the rear to outpost the rear position.

(2) Units of the main force move to the rear in the same manner as in withdrawal in daylight, with the following exceptions: all units withdraw simultaneously on a broad front; formations are closer; and movements are conducted with greater emphasis on secrecy and security.

(3) The detachments left in contact are withdrawn at a prescribed time or upon order. The rearward movement of artillery supporting the detachments left in contact begins prior to movement of detachments.

d. Under Enemy Pressure. The night withdrawal from action as discussed in *a* through *c* above presupposes no significant enemy interference. In the event that the enemy detects the movement, or continues his offensive action during hours of darkness, it may be necessary to execute a withdrawal from action along the lines laid down in paragraph 316*a* through *c*, with the necessary modification to counterattacks and fires imposed by the difficulty of control during periods of reduced visibility.

Section III. DELAYING ACTION

318. General

a. Delaying action is the type of action usually employed by covering forces and other security detachments. It is executed most

effectively by highly mobile troops used in conjunction with tactical aviation. The use of demolitions, antitank and antipersonnel minefields and other obstacles covered by fire strongly reinforces the delaying capability. Delaying forces must offer a continued threat of serious opposition in order to force the enemy to deploy and maneuver.

b. Forces conducting delaying actions must fully exploit terrain. Ridges perpendicular to the enemy's direction of advance, which provide good observation and field of fire, facilitate, delaying action. Natural obstacles increase defensibility, canalize the enemy's advance, and protect the flanks. Open terrain favors observation for long-range fires, while close terrain requires infantry to bear the brunt of combat. Ideal delaying terrain is an area which provides successive lines of commanding terrain, denying effective enemy observation, each line possessing a linear obstacle such as a river, or swamp, which can be covered by long-range observed fire or direct fire weapons.

c. Timely intelligence of enemy movements is particularly important. Hostile forces possessing freedom of maneuver and mobility will attempt to envelop the flanks or strike the rear of the delaying position. Delaying forces must prepare to block or destroy such forces. Contact with the enemy must be maintained as far forward as possible for security reasons and in order to give up no more ground to the enemy than necessary. Air reconnaissance is particularly valuable in delaying action.

d. To facilitate coordination, the zone of action is divided into sectors with boundaries extended to the rear through any rearward positions. When operating on a broad front, control will frequently be decentralized to combat team formations. Continuous liaison between adjacent units must be maintained. To control movements, times of withdrawals are prescribed and phase lines or successive positions are designated.

319. Employment of Armor and Infantry

a. Armor is ideally suited to delaying action because of its mobility, its ability to engage the enemy with long-range, flat trajectory fire, and its signal communications which permit control over wider areas than like infantry units. Armored delaying positions are not organized in depth, but rather as a line, strong in firepower, with the bulk of the force concentrated at likely avenues of approach. The reserve, which consists of predominantly tank elements, is used for counterattacks and security. Its size depends on the situation and forces available. Armored units withdraw by fire and movement, the withdrawing elements always being covered by a supporting element or base of fire. The enemy's fire is neutralized by the weapons in the base of fire while the withdrawing tanks, using covered routes, move

to the next firing position. In daylight withdrawals, tanks are usually the last element to break contact with the enemy.

b. Infantry delaying action consists of a series of successive defensive positions. These positions differ from the position defense as follows: rear defense areas are not organized; forward defense areas are organized in less depth; the interval between forward defense areas is increased; and emphasis is placed on positions which provide long-range observation and fields of fire. These differences permit infantry units to delay over increased frontages. The infantry tactics employed are those of the defense. However, the enemy is not normally allowed to close with the position. A mobile reserve, supported by armor and artillery, must be prepared for rapid employment to meet enemy threats to any part of the delaying position.

320. Delay on Successive Positions

a. Delay on successive positions is limited resistance on an initial position and renewal of resistance on successive positions. This is the most desirable type of delaying action and is employed when: space is available; the time that the enemy must be delayed is long; and the terrain affords several suitable delaying positions.

b. The mission, the terrain, time available to organize each position, and the relative size and composition of opposing forces will determine the amount of delay that can be accomplished on each position. Delay is facilitated by selecting positions on high ground, at such distances apart that the withdrawal may be completed during one night, yet far enough apart so that the enemy must reorganize his force prior to the attack of the next position. In difficult terrain, where infantry conducts the primary action, successive positions may be closer together. In the selection of positions, consideration must be given to the location of natural and artificial obstacles, particularly when the enemy is strong in armor.

c. Defense on each position must force early deployment of the enemy. Armor, artillery, and infantry weapons are located well forward so as to inflict maximum delay on the enemy by engaging him at long ranges. Contact is made by some elements of the delaying force as far forward as possible and continuous resistance is offered.

d. The loss of a defended locality may not require an early withdrawal across the whole zone. Adjacent units and the reserve are employed to maintain the integrity of the position if their action will not result in the entire force becoming too heavily engaged. The situation may require a strong resistance on any position, or even a counterattack, in order to accomplish this delaying mission.

e. Preparation of the next rearward position is of prime importance. When necessary, troops of the delaying force are employed for this purpose. Just prior to withdrawal from the forward position, some

elements of the delaying force are disposed on the rearward or an intermediate position to cover the occupation of the former by the main delaying force.

f. When forced from the position by the threat of becoming too heavily engaged, a withdrawal from action is executed, whenever possible at night.

g. Persistent CBR munitions may be effectively used to create barriers, to reinforce natural obstacles, and demolitions and to deny areas to the enemy.

321. Delay on a Single Position

Delay on a single position is executed by occupying one position for the period of necessary delay. It is adopted when—space available for delay is limited; the time that the enemy must be delayed is short; and the terrain does not provide a choice of more than one satisfactory delaying position. The organization of the position parallels either the position or mobile type defense depending on the frontage, delay required by the mission, terrain, and forces available. Delay on a single position employs the same tactics used in the defense. See chapter 9, The Defensive. Disengagement and movement to rearward positions is executed as in delay on successive positions.

322. Delay by Offensive Action

At higher echelons, delay may be accomplished by offensive action in conjunction with other forms of delaying action. Such offensive action usually takes the form of limited objective attacks whose purpose is to disrupt and disorganize the enemy's advance. Large armored forces are particularly suited for these missions.

Section IV. RETIREMENT

323. General

a. A retirement may be made to extend the distance from the enemy, to reduce the support distance from other friendly forces, to secure more favorable terrain, to conform to the dispositions of the larger command, or for employment in another area. When a withdrawal from action precedes a retirement, the actual retirement begins when organization of march formations are completed.

b. The march objective or rear position should favor future employment of the command. If the purpose is to escape from a desperate situation, the rear position should place distance and obstacles between the friendly forces and the enemy. The distance of the rear position depends on the mission, strength, and capabilities of the enemy, strength of friendly forces, and the terrain and weather.

324. Control and Coordination

a. The formation and number of columns employed during retirement depend upon the number of available routes and amount of enemy interference. It is desirable to move major elements of the force to the rear simultaneously. However, a restricted road net or hostile threat to a flank may require echelonment of the movement.

b. During the initial phase, specific routes are assigned to administrative and support troops with instructions concerning clearance of routes for combat elements. Zones of action are assigned to combat elements for the conduct of their initial retirement. Initially, conduct of the retirement is decentralized; as the retirement develops, the force commander normally regains centralized control.

325. Security

a. In a short retirement which can be completed in one night the forces covering the withdrawal from action provide sufficient protection for the movement. If the movement continues, these forces are strengthened, and advance, rear, and flank guards are formed to protect the force. The organization and conduct of these forces in a retirement are similar to that discussed in paragraph 199*b*.

b. Advance guards, composed of mobile troops may be required to meet the threat of enemy forces, prevent surprise, and clear routes of march.

c. Flank security is necessary to prevent encirclement of the retiring force and a surprise flanking attack against the extended columns. Flank guards must be highly mobile and may be composed of infantry, armor, artillery, and engineers.

d. The rear guard is the principal security of each column. It protects the column from surprise, harassment, and attack by the main enemy force. The rear guard normally consists of infantry, strong in automatic weapons and supported by artillery and armor. Its size depends upon the strength and imminence of the enemy threat. When the situation permits, the rear guard retires in a formation which is the inverse of that for an advance guard. Should the enemy establish contact the rear guard conducts operations employing the tactics of a delaying action.

326. Main Body

The main body is organized in a manner inverse to that for an advance to contact. See Section IX, War of Movement, Chapter 8, The Offensive.

327. Air Support

Air reconnaissance keeps close surveillance of any hostile forces that are in position to interfere with the retirement, especially those which may threaten the flanks. It should maintain close liaison with the security detachments. Army aircraft must be at the disposal of the artillery with rear guards to observe for their long-range fires. Tactical aviation is valuable in delaying the hostile followup or pursuit.

328. Conduct

a. The initial action is the movement of administrative units and trains to the rear to a selected bivouac area. During their retirement they establish dumps of ammunition, fuel, and rations to meet the needs of the retiring force.

b. At the designated time, withdrawals from action are executed and troops move into assembly areas and form into march formation, at which time the force is prepared to initiate the retirement.

c. For the initial phase the force retires in multiple small columns. As the distance from the enemy increases, small columns consolidate into larger ones. Road nets and hostile interference influence the time and manner in which this is accomplished.

329. Denial Operations

Consideration is given to denial operations to make the enemy advance more difficult. Partial or limited denial, denying to the enemy routes of communication and facilities likely to be of use to his military units, is particularly suitable, as is nuisance mining. This will not normally impede the advance of the enemy armor which has cross-country mobility, but can seriously impede his logistical support which is normally road-bound, if executed with skill and imagination in accordance with an overall plan. Care must be taken to insure that the execution of the denial plan does not adversely affect our own future operations.

CHAPTER 11

SPECIAL OPERATIONS

Section I. GENERAL

330. Definition and Introduction

Special operations are those operations in which the characteristics of the area of operation, the nature of the operation, special conditions under which the operation may be conducted, or a combination of these factors require special or specially trained troops, special techniques, tactics, materiel, or an emphasis upon certain considerations.

331. Applicability of Doctrine

The fundamentals enunciated in the previous chapters of this manual are applicable to the conduct of special operations. They must be modified by the special considerations covered in succeeding sections.

Section II. COMBAT IN FORTIFIED AREAS

332. Characteristics

A fortified area is one containing numerous defensive works and localities, usually consisting of concrete, steel, or permanent field fortifications. The localities and works are usually disposed in great depth and width and in such manner as to be mutually supporting. Contaminated areas may be used in conjunction with these defensive works. Depending on its location, extent, and depth, a fortified area may be classified as a fortified locality, belt, zone, or position. The outpost of the battle position may itself be a fortified position. The area is generally served by well-developed road and rail nets and signal communication systems. Fortified areas provide the defender with maximum protection and permit economy of force.

333. Reduction of Fortified Areas

Whenever possible, fortified positions are bypassed or neutralized and later reduced by siege or by an attack from the rear. When they cannot be bypassed, they are reduced by frontal attack.

334. Attack of a Fortified Position

The special considerations involved in the attack of a fortified area are—

a. Detailed intelligence is required upon which to base training and plans; knowledge of the manner in which the fire of permanent fortifications is coordinated is important.

b. Specialized training of assault echelons, to include rehearsals on replicas, is required.

c. Combat superiority, especially in close air support and high velocity heavy caliber direct fire weapons, is necessary.

d. Command organization and the composition of the assault echelons are tailored to their specific missions.

e. Assault of fortified areas requires lengthy and thorough preparation.

f. Planning and preparation are highly centralized but the execution is decentralized to the point that the reinforced infantry platoon is the basic assault element.

g. Isolation of the area selected for penetration is required.

h. The successful neutralization of a fortification must be followed immediately by mop up detachments of specially trained troops.

i. Indirect fire weapons of all types are used to destroy camouflage, to neutralize and destroy enemy field fortifications and artillery, to fire on enemy counterattacks, and to screen the movement of assault troops.

j. The assault echelon is followed closely by reserves who exploit the penetration, maintain the continuity of the attack, or defend critical areas against counterattacks.

k. Airborne troops may be used in conjunction with the frontal assault of large fortified areas, their principal use being to block the movement of large general reserves and to attack the fortifications from the rear.

l. Unless required for use by the attacker, captured enemy armament and fortifications are removed or destroyed to prevent their use if recaptured.

m. Special demolitions, flame throwers, and direct fire weapons are the chief weapons of the assault teams.

n. Smoke screens are used to isolate individual strong points from the observed fires of adjacent fortifications.

o. CBR agents may be used advantageously.

335. Defense of a Fortified Area

The special considerations involved in the defense of a fortified area are—

a. Fortified positions permit the use of a smaller portion of the force in the holding garrisons and a commensurate increase in the reserve. Fortifications are not a substitute for a strong mobile reserve. Fortifications must be organized in depth and provide for all around defense.

b. Field fortifications are used to supplement the fortified area.

c. The primary purpose of the defense is to so involve the enemy in the task of reduction that he is especially vulnerable to the counterattack.

d. The defense of a fortified area is conducted in the same manner as set forth in chapter 9.

e. The holding garrisons are tailored to the organization of the fortified area.

336. Reference

Details concerning combat in fortified areas are set forth in FM 31-50.

Section III. COMBAT IN TOWNS

337. Characteristics

Towns, particularly those containing extensive built-up areas and block-type construction, offer cover and concealment for troops and weapons. They are conspicuous topographical features of which exact details are generally known. Towns are susceptible to destruction by air or artillery bombardment and atomic weapons and to neutralization by chemical, biological, or radiological contamination. However, towns with buildings of substantial construction having deep basements and widespread underground transportation and sewage systems provide the defender with extensive protection against air, artillery, or atomic weapons attack. Fires started by atomic weapons or incendiaries may make towns untenable. Towns containing solid masonry or concrete and steel buildings modified for defense purposes and well organized into defensive positions become fortified areas.

338. Reduction of Towns

Whenever possible, towns are bypassed. When capture of the town is essential, methods applicable to the attack of organized positions are employed. Attacks against well defended towns are similar in nature to those against fortified areas.

339. Attack of a Town

The special considerations involved in the attack of a town are—

a. The town or city to be attacked should be isolated, and then attacked in a manner similar to the attack of a fortified area.

b. Key objectives are so selected that their seizure will divide the defense.

c. Prior to the attack specific provisions to prevent looting are made in order to prevent impairment of the combat effectiveness of the command.

d. Measures to control and relieve the civil population are provided.

340. Defense of a Town

The special considerations involved in the defense of a town are—

a. A town or city is primarily an obstacle.

(1) It canalizes and impedes the attack and counterattack forces.

(2) The best manner to defend it is to place the holding garrison in the outer limits, and to hold mobile reserves in such a location as to make possible a counterattack in the open.

b. A defense completely within a town or city should be organized around key features whose retention preserves the integrity of the defense and permits the defenders to move readily.

c. The main line of resistance is so selected as to permit the conversion of buildings to effective defense works.

(1) Maximum use is made of rubble and other obstacles.

(2) Steps are taken to bring about the effective closure of approaches to the town and built-up areas.

d. Defense in depth is absolutely essential. When time permits, successive integrated lines of fortified buildings are prepared so that the defender, forced from one line, has merely to fall back to the next organized line.

e. Plans are made for—the control of the civil population; the evacuation of the civil population from the immediate battle area; and the use of friendly elements to assist in the preparation of defensive positions.

341. Reference

For details see FM 31–50.

Section IV. OPERATIONS AT RIVER LINES

342. Characteristics

a. General. Wide unfordable rivers exercise considerable influence on military operations because they impose restrictions on movement and maneuver. They constitute obstacles to attack and form natural lines of resistance for defense. The high state of training required, the vital influence of intelligence, and the close coordination of all forces are distinctive to successful river crossing operations. Offensive operations at a river line require the assemblage of troops with large amounts of equipment. Commanders must insure that such an assemblage is not so concentrated as to provide a profitable atomic target.

b. Tactical. Tactical courses of action are severely limited in a river crossing because the ability to maneuver or deliver effective supporting fires is restricted by the river and during the time troops and equipment are astride the river. Once forces and equipment are committed to crossing, withdrawal or deviation from the initial plan of action is extremely difficult. There are two types of river crossing operations: the hasty crossing characterized by quick exploitation of opportunity; and the deliberate crossing characterized by the extensive planning and detailed preparations for its execution. The steps in a river crossing are: long range planning, the advance to the river, assembly and preparation for crossing, the assault, and the expansion and consolidation of the bridgehead.

c. Technical. A greater requirement for special equipment and specially trained personnel exists in a river crossing operation than is normal in ordinary attack operations. The strength of a river line increases with the width, depth, and velocity of the stream.

343. Attack of a River Line

The special considerations involved in the attack of a river line are—

a. Plans for crossing a major river are made in advance and include provision for both a hasty and a deliberate crossing. They provide for assembly of special equipment and engineers and for the training and rehearsal of assault troops under conditions which resemble those to be encountered.

b. Every attempt is made to make a hasty crossing thus avoiding the difficulties of a deliberate one.

c. The river crossing force will seldom be able to seize the entire bridgehead in a single sustained attack, due to the initial high degree of decentralization of tactical and logistical means. Therefore, the bridgehead is usually developed as follows:

(1) The attacker seizes objectives which will prevent the enemy from bringing effective direct small arms fire to bear on the selected crossing areas. The trace of the forward limits of that portion of the bridgehead which is controlled by these objectives is indicated on a map or overlay by a line marked "0–1". Attainment of these objectives by troops of the initial assault waves normally permits the initiation of assembly of footbridges and rafts, the use of which will ease the task of crossing succeeding troops and equipment.

(2) The attacker then seizes objectives which will permit the assault force commander to reorganize his forces for continuing the attack to seize his assigned portion of the bridgehead. Normally these should eliminate observed artillery fire from the selected crossing areas. The trace of the forward limits of that portion of the bridgehead which is controlled by these

objectives is indicated on a map or overlay by a line marked "0–2". Attainment of these objectives will provide the assault force commander sufficient space on the enemy's side of the river to accommodate, without undue congestion, reserves and fire support installations required by his forces in the bridgehead. These objectives should provide the assault force commander with a good defensive position since he may be required to halt temporarily while crossing additional forces and means necessary for continuing the attack. The nature of 0–2 line objectives and their distance from the river will usually be such that their seizure will permit rapid completion of vehicular bridges.

(3) Finally the attacker continues the attack to seize objectives which will provide sufficient space on the enemy's side of the river to accommodate, without undue congestion, the troops, equipment, and installations essential to the mission of the force and which will prevent the enemy from bringing effective sustained artillery fire to bear on the selected crossing areas. The trace of the forward limits of the bridgehead which is controlled by these objectives is indicated on a map or overlay by a line marked "0–3 (Bridgehead)". Attainment of these objectives, coupled with air superiority, permits uninterrupted use of all crossing means and provides maneuver space for the river-crossing force.

d. The trace of the 0–1, 0–2, and 0–3 (Bridgehead) lines should be such that the control of each will protect activities nearer the river and will provide observation over areas further from the river. They should be readily identifiable and defensible and should be separated by enough distance that control of each is a definite tactical step toward the establishment of the force bridgehead. These lines must tie in to the river or boundaries at their extremities so as to afford maximum protection to the flanks.

e. The advance to the river is made on a broad front and with great speed to increase the possibility of effecting a hasty crossing.

f. Detailed intelligence is required to reveal—the capabilities of the enemy to oppose the crossing; river characteristics, obstacles, terrain on the far side, assault crossing sites, ferry sites, bridge sites, and local resources to assist in the crossing.

g. The plan for the river crossing is based on the scheme of maneuver on the far side of the river. The crossing is effected so as to support that operation. At times tactical or technical requirements for crossing sites may dictate the scheme of maneuver on the far side.

h. Secrecy in preparations and deception measures as to the time and place of the main crossing are essential. Feints, demonstrations,

smoke, and crossings in periods of limited visibility are used to reduce casualties and to deceive the enemy.

i. A night crossing is preferable to a daylight crossing when attacking units are well-trained and terrain, enemy resistance, and other river conditions are favorable.

j. Organic engineer troops are reinforced to assist the assault. A reserve of engineer troops and materiel must be provided.

k. Although planning is centralized, execution on the far bank in the first phase is decentralized to assault units. As the operation develops, operational control, responsibility for the bridgehead, and operation of ferries and bridges are progressively centralized in higher echelons. Operations on the near bank remain under close supervision and centralized control throughout. This pertains in particular to traffic control since undue congestion will create remunerative targets for enemy weapons.

l. The reserve is held mobile and ready to cross to the far bank as soon as maneuver room is available.

m. The fire support of a river crossing emphasizes counterbattery and countermortar fires. The fires of the weapons of the assaulting and reserve units are massed to protect the crossing. Fire support plans of appropriate echelons must include provisions for adequate antiaircraft artillery protection of the bridgehead.

n. The use of airborne or helicopter transported troops is an effective means of circumventing a hostile defense of a river line. Such operations can be used in conjunction with a hasty or deliberate crossing.

o. The armored infantry battalions within the armored division, due to the amphibious characteristics of the armored personnel carrier, are well suited for either hasty or deliberate river crossings. Complete battalions may be moved across the river without movement of special equipment. Other units possessing armored personnel carriers have an inherent river crossing ability dependent on the number of such vehicles available.

344. Defense of a River Line

The defense of a river line is essentially no more than the application of the principles of the defense to a particular condition of terrain. Smaller rivers may be employed as obstacles upon which to base a position defense. Major rivers are best defended by the mobile defense, particular stress being laid upon striking the hostile forces with a heavy counterattack while they are astride the river. For the principles of the position and mobile defense, see chapter 9.

345. Reference

Details concerning river crossing operations are contained in FM 31–60.

Section V. NIGHT COMBAT

346. Characteristics

Night combat which achieves surprise and which capitalizes on the inherent fear of darkness may offer exceptional opportunities for success when daylight measures are less practicable. Very hazy or rainy weather, fog, or smoke produce conditions similar to darkness. Night combat is also characterized by a decrease in the effectiveness of aimed fire and by a corresponding increase in the importance of close combat and the fire of weapons laid on definite targets or areas by day; by difficulty in movement, troop leading, and the maintenance of direction, cohesion, and control; and by a more highly sensitive morale of the troops to physical and psychological factors. The time required te execute maneuver and to handle and emplace equipment or weapons is generally greater at night. Decrease in the effectiveness of aimed fire permits the use of closer formations without exposure to excessive losses; difficulty in the maintenance of control and direction necessitates the selection of limited, easily recognized objectives which may be approached by well-defined routes; the more sensitive morale of troops increases the effects of surprise obtained by the offense and the importance of adequate security measures on the part of the defense. Reverses and failures at night generally affect troops more than these same reverses or failures do in daylight.

347. Tactical and Technical Considerations

a. Tactical. Night combat is applicable to all types of operations. It may be undertaken to complete or exploit a success, to gain important terrain for further operations, to avoid heavy losses, to maintain pressure against the enemy, to achieve surprise and psychological superiority, to utilize concealment afforded by conditions of darkness, and to compensate for inferiority in air and armored support. Night combat emphasizes the need for detailed planning, thorough daylight reconnaissance, effective leadership, effective control, and thorough training and rehearsals.

b. Technical. Troops are trained in the technical aspects of night operations to include firing at night, night observation, the habituation to cold and mist, night orientation, with particular reference to scouting and patrolling, silent and stealthy movement, and night discipline. Troops are likewise trained in the use of pyrotechnic and battlefield illumination devices; in night removal of mines and obstacles; in night ruses and camouflage; in the operation of night sighting devices and electronic, sound, and other warning devices. Provisions are made for appropriate battlefield illumination devices, night sighting devices, and warning equipment. Troops should be thoroughly rehearsed in the employment of these devices.

348. Night Attack

a. Basic Fundamentals. The basic fundamentals involved in night attack are the same as those for any other attack. The principal differences arise from the stress on simplicity of plan; careful preparation to include training, rehearsals, secrecy, surprise, and daylight reconnaissance; well defined and easily identified objectives; carefully prepared fire and maneuver plans; effective control and cohesion in execution; and adequate signal communications. Night attacks should be made by fresh troops; however, they must have adequate time to become familiar with the area.

b. Planning. Plans and orders for night attacks are formulated with more than usual detail. Routes of approach, assembly areas, attack positions, line of departure, limit of advance, and objectives are designated with the utmost precision. Orders include—the rate of advance; the formations to be employed; *means for mutual identification of troops;* measures for flank protection and for maintenance of direction and contact; measures for battlefield illumination; the composition, assembly area, and mission of the reserve; the course of action to be followed on the capture of objectives; and detailed instructions for maintaining secrecy including those governing reconnaissance, and the conduct of artillery and other supporting fires. Some of the foregoing control measures are unnecessary when battlefield illumination is employed.

c. Objectives. The difficulties of night attacks increase with the size of the command. They may be made successfully with any size unit, but the objective assigned any assault unit should be limited. To the extent that detailed plans can be completed in advance, deeper objectives can be reached by a succession of limited objective attacks. Deeper objectives can be assigned to the degree that battlefield illumination eliminates the difficulties of control and movement.

d. Time.

(1) An attack launched during the first hours of darkness is designed to seize and hold the objective by taking advantage of the longer period of darkness. It may anticipate possible night operations on the part of the enemy.

(2) An attack launched during the last hours of darkness may be advantageous as a preliminary to a general attack at daybreak because it gives the defender little time to react. The attack should usually be launched to give the attacker sufficient time on the objective during darkness to organize the position to resist counterattack and to prepare for further operations prior to continuing the attack at daybreak.

e. Preliminary Operations.

(1) *Reconnaissance.* The decision to attack should be made while there still is sufficient daylight to make all preliminary

reconnaissance and preparations. Reconnaissance should include observation of the terrain at night as well as during daylight in order that both the day and night aspects may be studied. Easily identified direction points are located. Provision may be made for marking direction points, including objectives, by machinegun tracer, artillery, and mortar fire.

(2) *Battlefield illumination.* Searchlights, ground signals, illuminating shells, illuminating grenades, trip flares, aircraft flares, and field expedients may be employed to provide battlefield illumination. Sufficient time must be employed to prepare illuminating plans and to integrate them with the maneuver and fire support plans. The commander conducting the operation must have direct control of all means of illumination throughout the attack.

(3) *Fire support.* Fire support is normal except that supporting weapons are prepared to box off the zone of attack or to cover a withdrawal.

f. Assault.

(1) In the conduct of night attacks only the simplest formations are employed. If the attacks are to be made by stealth, the smaller units advance in column along a well defined axis until close to their objectives, then skirmish lines are formed and the enemy is assaulted with fixed bayonets. Each column is given a definite direction and objective. Contact is maintained between columns and every precaution is taken to avoid their collision. The assaulting columns are followed closely by their supports and local reserves.

(2) Reserves are located in positions where they can promptly move to the objective, exploit the success of the attack, or cover a withdrawal.

(3) Leaders are well forward to direct and control the progress of the attack.

(4) On capturing their objectives, units reorganize and promptly prepare to meet enemy counterattacks and to continue the advance.

g. Night Raids. Night raids may be used to capture personnel, deceive and interfere with dispositions of hostile forces, obtain identifications, and determine details of the hostile position, especially any major changes in the enemy dispositions. When a rading force has accomplished its mission, it withdraws on a previously arranged signal. A route of withdrawal other than that employed for the advance is used, if practicable. During the withdrawal, the reserve of the raiding force is utilized to cover the withdrawal. Fires of

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the artillery and other supporting weapons are held on call to support the raiding party.

349. Defense at Night

a. Basic Fundamentals. The basic fundamentals involved in night defense are the same as for daylight defense. The emphasis in night defense is upon measures to prevent surprise and the use of obstacles and prearranged fire to break up the assault.

b. Planning. Plans for defense provide against infiltration, guerilla action, and airborne attack, for defense of installations in a perimeter and for organized defensive fires to cover avenues of hostile approach and areas within the defensive area. Plans may be made to change troop dispositions from daylight dispositions in order to gain surprise.

c. Security. Electronic devices, minefields, barriers, obstacles, outguards, active patrolling well to the front, and illumination of the foreground must be relied upon to give timely warning of attacks. Gaps that cannot be covered effectively by fire from adjacent units are occupied at night by reserve elements. Areas and objects may be contaminated with toxic agents, preferably those which take effect with very little delay.

d. Conduct of the Defense.

(1) The best defense against night attack is fire control and fire discipline. Panic and premature fire are deadly weaknesses in defense at night.

(2) Continual aggressive patrolling, rehearsed night counterattacks, and planned measures to organize rapidly and to move to meet the attack are essential to successful defense at night.

(3) At night, combat outposts are normally reinforced and patrolling is increased. When night attack is imminent, more infantry may be placed on the battle position.

(4) Battlefield illumination is used to light up avenues of attack.

(5) Counterattacks are made on enemy penetrations while it is still dark to capitalize on the defender's knowledge of the terrain. If counterattacks fail, the penetration is blocked.

(6) Obstacles and the fire of fixed weapons are the principal means used in breaking up the assault. Artillery fires on prearranged areas supplement these means. All units in the battle position make final preparations to engage the enemy at a time not later than when the combat outposts are forced to begin withdrawal. In order to prevent premature disclosure of their positions automatic weapons are not fired until they have a profitable target.

350. Night Retrograde Movements

a. The basic fundamentals of retrograde movements apply to night retrograde action. For night withdrawals see chapter 10.

b. As a rule, delaying action at night can be executed only by small units or detachments which operate and withdraw along well-defined routes. Retrograde movements are regulated carefully to avoid losses by fire from friendly troops in the rear. Disorganization and delay of advancing hostile ground columns may be accomplished by the attack at night of small groups against marching columns, bivouacs, billets, or motor parks.

351. References

For additional details see FM's series 6, 7, and 17.

Section VI. COMBAT IN WOODS

352. Characteristics

Combat in woods, in some respects, is similar to combat in towns and fortified areas. Extended and thick woods provide good concealment and camouflage but limit visibility and fields of fire and hamper observation and control. Woods hamper mobility. They may often contain large swampy areas or lakes which may provide good observation and fields of fire. Trafficability of swampy areas is extremely changeable as a result of rain, dry weather, or freezing. At times a swamp may be impassable; at other times it may be the best route of advance. Woods favor raids and guerilla warfare since they provide favorable conditions for execution of surprise. Some woods, owing to their size or location, are naturally strong defensive areas; small wooded areas in open terrain, however, are easily neutralized by fire, smoke, or mass destruction weapons.

353. Tactical Considerations

Isolated woods included in the enemy defenses are usually avoided in the attack by passing them on either one or both flanks while the edge of the wooded area is neutralized. They are then taken by encirclement. Small wooded areas in otherwise open terrain are usually avoided in defense as they are conspicuous and draw fire. Attack or defense in extended woods requires training and careful preparations. Ground action usually culminates in close combat with fire fights at close ranges where the light automatic weapons and mortars often play a decisive role.

354. Attack in Woods

a. General. Wooded areas are attacked frontally only when envelopment is impractical. The principal objective of the attacker is

early seizure and use of the normally limited road and trail network.

b. Special Considerations. The considerations which are stressed in attacking in woods are—intensive training of troops in maintenance of direction and control in woods, clearing of obstacles and fortifications in woods, building fortifications typical of wooded areas, clearing fields of fire, using and fighting forest fires, and trail and road breaking and construction. The usually limited road net necessitates careful planning for the movement and supply of troops. Separate avenues of approach may require extensive use of independent combat formations. Dense woods favor deep formations.

c. Planning. Planning must provide for appropriate training, equipment, supply, and evacuation. All conventional and improvised means of transportation are used.

d. Chemical, Biological, Radiological. Chemical, biological, and radiological agents may be used to contaminate wooded areas. Chemical defoliants may be used on broad leaf trees to remove vegetation, mark targets, or to set up aerial navigation aids. Weather conditions in wooded areas are usually more favorable for the use of CBR toxics than conditions in adjacent open areas.

e. Security. The flanks and rear are protected by outposts and patrols along prominent terrain features or likely avenues of enemy approach. Helicopters may be used to lift these security detachments. When hositile guerillas or partisans are active, additional security forces should be assigned to protect artillery, supply routes, and supply installations.

f. Conduct of Attack.

(1) Attack against an enemy position close to the edge of woods resembles an attack in open terrain. The projecting sectors must be seized first, after which the attack is immediately continued to clearly defined objectives close inside the woods. The advance is continued after reconnaissance and reorganization of troops.

(2) The formation to be taken for the continuation of the attack depends largely upon the type of woods. In sparse woods, formations resembling those on open ground are employed, but with greater density in the leading echelon. In dense woods, small columns are more effective in the leading echelon. Measures are taken to insure direction, cohesion, and signal communication between the columns. Reserves are formed in column and closely follow the assault units. The vulnerability of the flanks requires flank security elements. Tanks normally operate on cleared lanes and roads even if the ground is firm. Large armor units may be used to excellent advantage in a cleared salient of the woods, in envelopment of woods, and in pinning down the enemy at the edges

of woods. Flame-throwers are effective. Woods limit the emplacement and employment of artillery in mass within their interior.

(3) An attack against an enemy defending deep inside extensive woods is normally executed by enveloping the enemy defended areas, which are usually located on the roads or trails. The enveloping forces, consisting of troops capable of rapid cross-country movement, advance through the woods against the enemy flanks or rear, their normal objective being the hostile line of communications. The secondary attack is usually executed by forces not as capable of extensive movement through the woods. A penetration of the enemy defended areas is generally more costly and often merely forces the enemy back on his line of communications.

(4) An attack may often be conducted by independently operating combat teams. The advance is usually made in narrow, deep columns. Support elements are formed in column and closely follow the assault unit. An advance party for reconnaissance, security and for trailbreaking is used. Soundless approach to within close range of the enemy is sought. Columns advance by bounds; roads, lanes, glades, ravines, creeks, and lakes are used as control points or phase lines. The flanks and rear are protected by appropriate security detachments.

(5) Assembling of combat groups on or near roads and trails is avoided when close to the enemy since these avenues will normally be covered by the enemy's system of defensive fires and minefields. Large glades and clearings should be skirted.

(6) Reserves are disposed so that they will not become involved in the fighting of the assault echelon and can be employed where the greatest progress is being made. The speed of movement of reserves is increased by the use of cross-country vehicles, helicopters, and any other efficient means available.

(7) The rate of movement in woods is slower than in open terrain. However, the tempo of fighting, after contact is made, is generally fast. Frequent envelopments with small units supported by artillery and mortar fire are used.

g. Reorganization. Before emerging from the woods and while still far enough from the edge to be concealed from the enemy's view, the command is redeployed for fighting on open ground. Since the edge of the woods presents a well-marked target for hostile fire, the attacking forces make their exit rapidly to seize an objective beyond the edge of the woods which will mask the edge of the woods from hostile ground observation and small-arms fire.

355. Defense in Woods

a. Special Considerations. As a defensive position, the edges of woods are not suitable because they present a clearly defined target to the attacking forces. Since a position in the interior of the woods has the disadvantage of restricted view and limited fields of fire, the observation elements of the combat outpost with artillery and other observers are placed close to the edge of the woods. The battle position is usually back from the edge of the woods. Field fortifications should be provided with overhead cover against tree and air bursts. Cutting of trees must not divulge positions or the organization of fire. Routes for messengers, supplies, and reserves must be known and marked for night use. The routes forward and to all positions in rear are reconnoitered and made known to all concerned. When defending in woods, commanders must carefully consider the enemy's capability of using mass destruction weapons.

b. Conduct of the Defense.

(1) While holding up the attacking units by means of obstacles, the defense seeks to break up the cohesion of the attacker's dispositions, lead him in false directions, and take the attacking troops under flanking fire. Natural or cleared lanes through the woods assist greatly in employing flanking machinegun fire and in detecting and holding up a hostile advance. Even when lanes have not been cleared, machinegun and other automatic fire sited to ricochet from trees is effective and particularly demoralizing to an advance.

(2) In wooded areas, close support by artillery becomes difficult. Fields of fire of all flat-trajectory weapons are extremely limited. The fire of high-angle weapons is not equally affected; a little clearing will permit howitzers and mortars to be used. Mines, defensive wire, contaminations, and other obstacles are placed both outside and inside the woods so that the full effect of artillery and other defensive fires can be utilized.

(3) Mines planted thickly within woods are particularly effective in slowing up the progress of the attacker and forcing him to use trails and mine detection methods. Defensive wire within woods is effective in delaying the advance, particularly in conjunction with antipersonnel mines.

356. References

For additional details see FM's series 7 and 17.

Section VII. COMBAT AT DEFILES

357. Characteristics

A defile is a natural or artificial terrain feature which canalizes an advance. Defiles frequently occur in mountain passes, woods, jungles, towns, river crossings, lake regions, and swamp areas. So far as air attack, atomic weapons, and other mass destruction weapons attacks are concerned, conditions approximating those of a defile may also occur at ports, in airborne operations, and in amphibious operations. A defile through which troops must pass is particularly susceptible to air attack therefore an adequate air defense must be provided. Ground defense of a defile is comparatively easy.

358. Tactical Considerations

If the route of an advancing unit passes through a defile, a force may be sent forward to establish a defense in front of it to permit the main body to emerge from the defile unmolested and to secure sufficient space for maneuver. Movement through the defile should be planned so that profitable atomic targets are not presented. Offensive action may be required to secure this maneuver space. The defense may be conducted in a single position with flanks refused and protected by the obstacles creating the defile, or the defender may adopt delaying action to gain the necessary time and space for the main body to emerge and develop for any action required. A similar defense outside a defile is often required of a rear guard to cover the retirement of the main body through a defile.

359. Attack of a Defile

The attack will vary with the manner in which the defile is held and the accessibility of the flanks. In defiles the attacker often cannot fully bring his superiority to bear because of limitations of terrain. In large scale offensive operations airborne or armored forces may be committed to capture or occupy defiles in advance of the main force. When a defile is held at or within the entrance and the flanks are accessible, the main attack is made in a direction that insures the capture of localities which command the entrance. When the flanks are inaccessible, the attack must be made by penetration. When the defile is held at the exit, the attack attempts to outflank the defense. By moving small forces through or around the obstacles creating the defile, the advance is made on a broad front to outflank defended areas. The attacker makes his exit from the defile on the widest possible front. Troops passing through defiles may offer lucrative targets for air and mass destruction weapons attack.

360. Defense of a Defile

a. General. The fundamentals of the defense apply to the defense of a defile. Care must be taken in defense of a defile to prevent undue massing of troops and equipment and to protect against air attack and mass destructive weapons.

b. Defense of a Defile.

(1) The defense may be conducted at the defile itself when it is intended to delay the enemy's advance through it for some time. In mountain passes or valleys, if the defender is more skillful in mountain movement than the attacker, he will have great advantage and may cause considerable delay. Conversely, if the attacker is more mobile, he may simply outflank the defender. The flanks of a position in a mountain pass cannot be considered secure against trained mountain troops.

(2) A mountain defile is defended with the bulk of the forces on the high ground to the flanks which command the defile. For details see section XI.

(3) Maximum use is made of long-range artillery fire, demolitions, mines, chemical, biological, and radiological contamination, and barriers within the defile to delay the hostile advance.

(4) Combat aviation is of maximum value because of the enemy's vulnerability to air attack while in the defile. The enemy may also present lucrative targets for the employment of mass destructive weapons.

c. Defense in Rear of a Defile. Defense in rear of a defile provides maneuver area to the defender while it closes the exit and restricts the movement of the attacker. The defensive position is concave towards the exit with flanks resting on obstacles. The distance of the position from the exit is such that converging fire of all arms can be brought upon the attacker before and during his movement from the defile. Reserves are held out to give flexibility to the defense and to counterattack promptly against enemy forces which succeed in emerging from the defile. The maximum delay and disorganization of the enemy is effected within, and in front of, the defile by the use of security forces, artillery concentrations, demolitions, mines, obstructions, chemical, biological, and radiological agents, mass destruction weapons, and air attack.

361. Retrograde Through a Defile

In withdrawal through a defile strict movement control and traffic control are necessary. Special measures are taken to protect the movement through the defile against hostile air, airborne, ground and guerrilla action. When appropriate, provision is made to cover the rear guard as it emerges from the defile.

Section VIII. JUNGLE OPERATIONS

362. General

In general, jungle combat is conducted at extremely close quarters by relatively small bodies of troops. Proper training and hardening to jungle conditions, discipline, initiative of individuals and small unit leaders, and suitable equipment are the keys to success. A force able to move off the trails and maintain itself under extremely arduous conditions possesses a great advantage. Control of units must be ensured, yet formations adopted must be sufficiently flexible to permit rapid deployment under conditions of limited observation and vulnerability to fire. In general, units will move in column adequately secured and alert for last-minute deployment. Intervals are extended in accordance with visibility and effective control. Maneuver consists of outflanking enemy positions using rearward units to turn the positions. Movement is generally measured in terms of time rather than distance. The training of troops must enable them to move cross-country, give them confidence in their jungle techniques, and produce resourceful individuals who consider the jungle an ally. Arms and equipment must provide for maximum mobility through difficult terrain under adverse climatic conditions.

363. Characteristics

a. In the jungle the difficulties of terrain, visibility, and climate so complicate command, control, maneuver, supporting fires, supply, and evacuation that the application of combat fundamentals and the considerations involved in special operations must be adapted primarily to terrain and climate limitations. Few roads or trails are available in the jungle; they often must be constructed as movement progresses. Rivers are frequently the best routes of communication and supply. Observation is limited to short distances, sometimes to only a few feet. Artillery survey is particularly difficult. The terrain will vary from mountain ranges covered with jungle to low lying swampy plains. All the difficulties of jungle operations increase in proportion to the size of the force involved.

b. Characteristic of jungle areas is the lack of industrial development and routes of communication, plus the deleterious effect of heat, humidity, fungi, and disease. Problems, requiring additional engineer effort in jungle operations, are field fortifications; jungle clearance; sanitation; insect control; refrigeration; rodent control; map coverage and surveying; airfield, road, and bridge construction; drainage.

c. Signal communication often is difficult. Visual signaling is seldom possible; the use of runners is slow and frequently hazardous; the range of radio may be reduced greatly by foliage and hill masses; and wire circuits are hard to install and maintain. When clearings

are available, drop and pick-up messages are highly satisfactory, by liaison plane or helicopter. Pigeons may be used for emergency messages. During combat, wire communications within battalions or similar units is vital.

d. Sanitation and health measures are particularly important. Proper innoculation prior to arrival and prophylactic treatment while in the jungle are necessary. Measures to avoid exposure of the command to insects are implemented where possible. In view of the difficulties of medical evacuation casualties may have to remain in unit medical installations for longer periods than in normal terrain. For this reason, and because of the constant emphasis required on health and sanitation, unit medical personnel must be carefully selected and all personnel thoroughly indoctrinated, during training, with the importance of health measures.

e. Terrain and weather conditions in jungles are most advantageous for employing CBR munitions. Due to the very dense canopy of vegetation, however, aircraft spray is usually ineffective against personnel. The large scale usage of defoliants will increase fields of fire and reduce the effectiveness of camouflage.

364. Attack in Jungles

The special considerations involved in making an attack in the jungle are—

a. The movement to contact is made by small foot units moving off main trails to develop the hostile position.

b. When the enemy position has been developed, units supported by heavier weapons are moved up on existing or newly constructed roads and trails.

c. Wherever possible, wide envelopment is attempted in order to cut off the hostile position from supply and support.

d. When frontal attack or penetration of a hostile position is necessary the main effort should be made with all possible speed in a direction that will permit cutting the enemy off from his natural routes of withdrawal.

e. Security in the jungle is a problem whose solution rests primarily upon employment of small detachments, frequently changed, which move on the flanks, to the front, and to the rear of the main body. The success of any attack will largely depend upon the ability of the security elements, particularly during enveloping maneuvers.

f. Jungle conditions place a premium on aggressiveness and initiative in the employment of artillery since the difficulties inherent to jungle operations may hinder the delivery of effective artillery fire support.

g. The use of airborne or amphibious elements to outflank a hostile force is invaluable, principally because of the saving of time and

energy. The timing of such operations is extremely difficult, but their effectiveness merits use whenever possible.

h. The depth to which an attack can be carried is dependent in large measure upon ability to supply the attacking forces.

365. Defense in the Jungle

Defense in the jungle involves the following special considerations:

a. Roads, trails, and rivers are the key to control of jungle areas; they are, therefore, the focus of defense.

b. Defensive positions are sited in depth on roads, trails, and rivers and are organized for all-round defense. They are situated at distances which permit mutual support of one another.

c. Reserves are positioned to be able to move rapidly to any portion of the defended area to counterattack. A network of trails will usually have to be constructed to permit rapid movement.

d. Security is provided by screening the entire area with small detachments which, when attacked, move back on the main body. Of prime importance is the provision of security for supply routes and bases. Ambushes may be prepared on likely avenues of hostile approach.

e. Artillery is effective in defense of jungle positions when it can be positioned and areas cleared so it can fire. Mortars are effective weapons for fire support.

366. Reference

For details see FM 72–20.

Section IX. DESERT OPERATIONS

367. Characteristics

The characteristics of desert areas vary greatly. The terrain may include areas of loose sand and sand dunes, boulder-strewn areas, mountains, extremely rugged terrain, salt marshes, or flat hard-surfaced areas. Well-defined roads are scarce, but trails generally exist between water sources. Usually areas of loose sand seriously impede movement by foot and by wheeled vehicles; in flat hard-surfaced areas, roads and trails are not vitally essential to the movement of ground transport. Desert areas are also characterized by limited vegetation, relatively few obstacles to movement, and few landmarks. This results in difficulty in concealment and in maintenance of direction. The lack of obstacles in certain areas makes possible a greater freedom of movement than in normal terrain. Mirage is a constant source of error. Distances are deceptive and usually greatly underestimated. Dust and sand storms may reduce visibility, facilitating surprise movement, but greatly increasing supply and maintenance

problems. Extreme variation in temperature within a 24-hour period may be expected.

368. Considerations

There are no changes in basic tactical doctrine or fundamentals for desert operations. Operations and movements are dependent upon effective supply, transportation, and maintenance. This is particularly important in the supply of water and petroleum products and vehicular transportation and maintenance. The troops must be trained and acclimated in the desert thoroughly before engaging in desert operations. Successful combat operations are dependent upon cross-country mobility, adequate supply and maintenance, effective control, dependable signal communications, rapid reinforcement of mobile forces, and coordinated air ground action. Military units are usually widely dispersed and tactical operations tend to be fluid. Mobile ground units or units transported by air assume increased importance. When the character of the desert permits, the speed, firepower, and the water supply capability of motorized and armored forces make them especially useful. Increased importance is placed on knowing the techniques of artificial camouflage and evaluating weather and terrain.

369. Air and Atomic Weapons

Air superiority is extremely important, not only to destroy or neutralize hostile forces and installations but to protect friendly forces from air observation and attack. Air transport is especially useful in supply and evacuation. The ease of dispersion in desert areas does not ordinarily result in profitable concentrations of troops for the employment of atomic weapons. However, atomic weapons may be profitably employed against airfields, communications centers, and supply installations.

370. Administration

a. Supply. Supply is complicated by terrain and extremes of temperature. When local water supplies are inadequate, water must be brought from the rear by tank, truck, rail, or pipeline. Allowance must be made for an appreciably greater than normal consumption of petroleum products when moving cross country. Oversize, balloon, sand tires for vehicles assume increased importance. Aerial supply and resupply will be quite common.

b. Evacuation and Hospitalization. Extensive evacuation by aircraft and helicopters may be essential.

c. Transportation and Maintenance. An effective organization for transportation, and the maintenance, recovery, and evacuation of transport and weapons is required.

371. Reconnaissance and Security

The almost complete freedom of maneuver in the desert, generally limited only by supply considerations, demands all-round security measures and aggressive and continuous reconnaissance. Highly mobile patrols equipped with radio and armed with suitable weapons for protection against armor and air attack should be used for ground reconnaissance. Air reconnaissance should discover the movements and locations of large forces in sufficient time to prevent surprise.

372. Attack

Desert terrain is often very advantageous for a wide encircling or turning movement by highly mobile armored or motorized forces, in cooperation with combat aviation. Such action may prove decisive. Formations must be adapted to secure rapid movement and protection against surprise. The threat of air attack makes a dispersed formation essential, yet the greater the dispersion the greater the difficulty of control. Ultimate success in battle in the desert is generally dependent upon the success of the armored elements. Rapid maneuver of armored and motorized units is essential to fully exploit enemy weaknesses and mistakes, and to bring full firepower to bear on the enemy under the most favorable conditions.

373. Defense

The mobile defense is particularly adapted to the desert. Armored divisions are particularly well suited for executing the mobile defense in desert warfare because of their long-range direct fire weapons, inherent mobility, and adequate communications. Other armored units will require reinforcing infantry, artillery, and antitank units. The defended areas in desert warfare, where possible, should be based on supply capabilities and must employ natural or artificial tank obstacles.

374. Reference

For details see FM 31–25.

Section X. GUERILLA WARFARE

375. Characteristics

Guerilla warfare is carried on by independent or semi-independent forces. Usually it is conducted to hinder, harass, sabotage, or delay operations of enemy forces. The operations are useful in destroying signal communications, gaining information, disrupting lines of communications, destroying supply and industrial installations, and assisting combat operations of regular friendly forces. This type of warfare may result as an aftermath of the defeat or withdrawal of

friendly forces. It may be employed in enemy-controlled friendly areas, or it may arise and its employment be planned for prior to and concurrently with operations to seize enemy territory. It is overt in nature. Guerilla activities may force the occupying army to divert much of its combat power in defense of rear areas. Mountains, deserts, jungles, and wooded areas are particularly suitable for the conduct of guerilla operations.

376. Considerations

a. In planning guerilla operations against a superior force, accurate information of the enemy's dispositions and movements and a thorough knowledge of the terrain and road net are needed. Large-scale operations are avoided. Tactics are based on a small force striking a quick surprise blow against isolated detachments, inadequately protected columns, convoys, or installations.

b. The plan of the commander provides for assembling the bulk of the command after each enterprise to prevent its dispersion and to insure proper direction in the conduct of subsquent operations. Guerilla groups should at all times have a rendezvous so that, in case of dispersal by a surprise attack, each individual can find the assembly point.

377. Supply and Communications

Every effort should be made to supply organized guerilla groups with small portable radios and secure codes. If regular forces can maintain communications with those groups, they can be controlled and their operations coordinated with those of the regular forces. Supply and resupply will be largely by airdrops and will consist chiefly of small arms, ammunition, medical supplies, and explosives. Adequate and dependable signal communications are essential to carry out supply operations by air. If radio communication is good, air support can be given guerilla operations by combat aviation. The groups make full use of locally available and captured supplies.

378. Conduct of Operations

a. In the conduct of guerilla warfare the mobility, enterprise, and reliability of the forces employed are more important than their numerical strength. In general, the best results are obtained by the use of numerous small detachments under capable and versatile subordinate leaders, all operating under the direction of an experienced superior commander. The enemy is harassed and held in suspense by repeated threats and raids. Whenever practicable, movements and attacks are made at night. During daylight hours, the main forces may remain concealed, leaving only reconnaissance patrols in contact with the enemy.

b. Raiding parties operating in the enemy's rear may seriously interrupt the enemy's system of supply by destroying bridges and attacking supply trains. Every effort is made to maintain communication with these raiding parties so that their subsequent activities may be properly directed. Passive measures, operations at night, and dispersion counteract hostile countermeasures.

c. Sabotage is an especially effective operation. In sabotage activities, chemical and biological agents may be used for contamination of vital installations and areas.

379. Reference

For additional details see FM 31-21.

Section XI. MOUNTAIN OPERATIONS

380. General

Mountainous terrain offers no insuperable obstacles to the conduct of military operations, even in cold weather, if troops are properly equipped, clothed, supplied, and trained. In fact, such troops, by accepting the natural hardships inherent in maneuver through mountain terrain, frequently achieve surprise which results in success with relative ease and few casualties. The infantry or airborne division is capable of operating in most mountains, though it may be necessary to resort to pack animals and manpower for the movement of equipment and supplies. Troops that are required to operate at high altitude under conditions of low temperature, high winds, ice, and snow must have specialized training and equipment. In general, mountain operations retard and restrict mobility, reduce firepower and effect of fire, and make signal communications and supply more difficult. Control and logistical planning must receive increased emphasis.

381. Characteristics

a. Terrain.

(1) Mountain warfare is characterized primarily by difficulties which terrain offers to movement. The restricted nature of narrow valleys and defiles limits the strength of forces which can operate efficiently therein. The inadequate road net found in sparsely settled mountain areas enhances the military value of existing roads, adds importance to heights which dominate them, and slows down the operations. Critical terrain features consist of heights which dominate valleys and lines of communications with their observation and fire; passes which permit movement through mountains; and roads and railroads which must be secured for supply purposes.

(2) In mountain combat, the commander is limited by terrain as to the means which he may employ. Success depends more upon proper adaptation of available means to the terrain than upon their power. Maneuver of small units and the initiative and leadership of subordinate commanders are of the highest importance in mountain warfare. Small units are favored by the concealment which is available for movement, by the diminished effect of hostile firepower resulting from defilade, and by facilities for observation.

(3) The plan of maneuver for the force as a whole is more closely subject to considerations of terrain than in ordinary regions. The problem often resolves itself into a matter of striking hostile routes of communications, and of defending one's own routes. The actions of small, semi-independent units in seizing or defending heights which dominate lines of communications, or of fighting to seize or block passes and other defiles on routes of communications, are of increased importance.

b. Weather. When formulating plans for operations, possibility of sudden changes in weather must be considered. Arrangements are made for frequent periodic weather reports. Meteorological equipment with personnel to operate it is desirable. Alternate plans are prepared to provide for changed weather conditions.

c. Special Training and Equipment.

(1) It is essential that all commanders have a thorough understanding of the capabilities of mountain-trained troops. It is likewise vital that the staffs of higher echelons charged with logistical planning for operations in mountainous areas include experts on clothing and equipment, to insure that the proper amounts and most advanced types of these items are made available. All commanders must be fully instructed in the proper use and maintenance of this special equipment.

(2) The commander of the theater in which the forces are to operate must specify special equipment and special training suitable to the climate, the character of the terrain, and the type of hostile forces to be encountered. Troops operating in mountains should ordinarily have a preponderance of high-angle of fire weapons. Attached pack transportation and additional signal equipment are essential. Mountain warfare often necessitates the substitution of lighter weapons for some of the heavier ones, or elimination of some of the supporting weapons, because of the limitations on supply and transportation. Helicopters, within altitude limitations, are valuable as prime movers for pack howitzers, heavy mortars, and rocket launchers.

(3) Small units may be required to operate for several days without resupply. Necessary specialized training for year round operation includes: use of skis and snowshoes; visual signaling; use of both pack and motor transportation, including oversnow vehicles; mountain climbing; special evacuation techniques for medical units; and specialized engineer techniques. Physical hardening is essential. Supply by air may be required and the technique of recovering aerial delivery must be understood by the units.

(4) Advance planning for use of aerial tramways may permit operations in areas not readily accessible by motor transport. Artillery pieces can be disassembled and moved by tramway to key firing positions.

d. Control. Although decentralization of operations is characteristic of mountain warfare and tactical groups usually operate semi-independently in the capture of terrain objectives, the scheme of maneuver of the force as a whole is based upon detailed centralized planning to insure unity of effort and adequate logistical support. The operations of a force operating within a single valley corridor however wide can be centrally controlled through skilled employment of signal communication means.

e. Signal Communications.

(1) The operations of the signal units are affected by the scarcity of commercial wire lines, by difficulties of laying wire, by "dead spaces" in radio reception, and by terrain barriers between adjacent corridors in which troops are operating. Dead spaces in radio reception may be obviated by establishing retransmission stations and use of ultra short wave radios. Additional radio equipment is desirable.

(2) Other methods to be used when wire and radio are inadequate include Army aviation, messengers, messenger dogs, and visual signaling. Experience has shown that the number of telephones needed in defense in mountains is large. Telephones at individual gun emplacements are desirable. Organic aviation is useful for both observation and communication. Pigeons are of value for emergency communication. Conditions may permit the laying of wire by aircraft or helicopter.

f. Inhabitants. The inhabitants of mountainous areas are an important consideration. A friendly population can furnish guides and assist in the conduct of operations. Hostile inhabitants may be expected to engage in guerilla operations. Mountainous areas favor operations of guerilla forces.

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382. Attack in the Mountains

The special considerations involved in an attack in the mountains are—

a. Attacks in mountainous areas are characterized by highly centralized planning and decentralization of operations to semi-independent tactical groupings.

b. Principal objectives are the heights which dominate the passes which permit movement through the mountains.

c. If an attack is to progress successfully, each dominant height must be secured prior to movement to the next one.

d. Mobility of tanks will be reduced; however, every effort should be made to move tanks into positions from which they can support the attack by direct fire against enemy fortifications and concentrations. Pack artillery can accompany infantry units fighting on the heights. Other types of artillery can support the attack from positions in the valleys. High-angle fire weapons assume major importance as a means of fire support for infantry units operating on mountainous heights.

e. Surprise may be readily achieved by movement of small, mountain-trained forces over seemingly impassable terrain to strike the enemy in flank and rear.

f. Attacks should attempt to strike the enemy in flank, wherever possible. Frontal attack is extremely difficult and must be heavily supported by fire if it is to attain any success whatever.

383. Defense in the Mountains

The special considerations involved in the defense in the mountains are—

a. Defensive positions are sited to cover the passes through the mountains and are placed on the heights which dominate them.

b. The flanks of each defensive position are pushed well forward to bring the enemy under flanking fire as he approaches the center of the battle position.

c. Security elements are relatively large and occupy dominant heights forward of the battle position. Flank security is highly important because of the ability of small, mountain-trained hostile forces to move through difficult terrain.

d. Counterattacks are especially effective since they can usually be directed against the enemy when he has become relatively disorganized and exhausted by his efforts to seize his objectives. Movement of counterattacking troops is difficult and slow; timing is highly important.

e. Fire support, especially with direct fire, long range weapons, automatic weapons, and mortars is highly integrated and is normally extremely effective because of the observation provided by the heights.

Artillery can be effectively employed from valley positions and in some instances from prepared fortifications on the heights. Tanks can be effectively employed from valley positions and from the heights. If they are available they must be integrated in the defensive plan to furnish direct fire support.

384. Reference

For details see FM 70–10.

Section XII. OPERATIONS IN DEEP SNOW AND EXTREME COLD

385. General

Military operations conducted in deep snow and extreme cold demand special clothing and equipment, and extensive training for the troops. Troops are trained in survival methods, in the use of skis, snowshoes, oversnow vehicles and other transportation, and in operations under winter and summer conditions. Infantry units are usually organized into light, self-sustained, tactical groupings from which all weapons and equipment unsuited to the operation being undertaken have been removed and for which appropriate special equipment has been provided. Small bodies of troops so trained and equipped are well suited for use as patrols or raiding parties against enemy flanks, rear, and lines of communications. Large bodies of troops properly trained and equipped can conduct extensive operations. Problems which must be overcome in extreme cold and deep snow include: the retention of body warmth in men and animals by provision of proper food, body covering and mobile shelter; providing equipment and transportation which facilitates movement over snow and ice; the transportation and preservation of supplies and equipment; special navigation equipment; special camouflage clothing and equipment; evacuation under conditions of extreme cold; maintenance and insuring adequate functioning of transportation, weapons, and equipment under extreme cold conditions. Tactical operations are more dependent on effective administrative support than is the case in operating under normal conditions. Exposure to extreme cold and deep snow results in reduced mental and physical alertness and consequent reduction in unit combat efficiency. Therefore, in very severe weather, special provisions may be required for individual and unit rotation.

386. Characteristics

Operations are influenced by snow cover, ice cover, extreme cold, sharp variations in weather, long periods of daylight or of darkness, and seasonal transitions. Peculiarities of the subarctic and Arctic

are sparse settlement; lack of roads and railroads; numerous lakes, waterways, swamps, and bogs; lack of maps; difficulty of navigation; difficulties of radio transmission; arctic whiteout; and forested areas During periods of extreme cold and calm the firing of weapons produces ice fog which renders observation for direct firing difficult and reveals locations of weapons. During thaws, streams and other bodies of water present serious obstacles to movement. Under summer conditions certain streams and lakes are arteries for water transportation. Rivers and lakes adequately frozen over in winter may offer excellent arteries for movements. Deep snow and ice impede cross-country movement. Under certain conditions snow may provide excellent means for cover and deception. Under conditions of open terrain snow may make camouflage and deception difficult. Hasty field fortifications are difficult in frozen ground. Brush, heavily wooded areas, or "rotten" snow favor movements using snowshoes. In certain areas a layer, "permafrost," frequently exists at varying depths below the surface, which prevents surface waters from draining into the subsoil under summer conditions. In relatively flat areas, where drainage is limited, this condition results in summer in a soft spongy surface interspersed with numerous lakes and ponds which make land transportation or cross-country movement extremely difficult and often impossible. In such areas water transportation may be effectively utilized but effective land transportation means have not yet been satisfactorily developed to traverse those muskeg and tundra areas. Under conditions of extreme cold more time must be allowed for the performance of all types of operations.

387. Attack and Defense

The fundamentals of offensive and defensive operations set forth in chapters 8 and 9 apply to combat in deep snow and extreme cold, subject to the limitations imposed on these operations by the weather and terrain.

388. References

For details see FM's 31–70, 71, and 72.

Section XIII. AMPHIBIOUS OPERATIONS

389. General and Purpose

a. A joint amphibious operation is essentially an attack launched from the sea by naval and landing forces embarked on ships or craft, involving a landing on a hostile shore. Such an operation normally requires extensive air participation and landings by air-transported troops, and may require landings by airborne troops. The distinguishing characteristic of the operation is that of joint action by sig-

nificant elements of the Army and Navy. The Air Force may be required to provide some or all of the air effort in support of the operation; the Marine Corps may be required to supplement the landing force. The joint amphibious operation may be an incident of a land, naval, or air campaign. It differs from normal land operations in that its flexibility is limited by the unwieldy tasks of minute coordination in all plans and actions, and in that logistical support of subsequent continuing operations ashore is vitally affected by the actions in the amphibious phase.

b. The purpose of the attack is to seize and occupy an objective on a hostile shore in order to:

(1) Obtain a lodgement area from which to carry out further combat operations ashore;
(2) Obtain a naval or air base area;
(3) Deny the use of the seized position to the enemy.

390. Fundamentals

The following fundamentals are applicable to amphibious operations:

a. Large amphibious operations are normally joint in nature. All large amphibious operations involving Army landing forces will be joint operations. Small amphibious operations may be unilateral Navy operations. Small amphibious landings of shore-to-shore type may be conducted by Army forces unilaterally.

b. Control of Joint Forces involved must be vested in one commander.

c. Accurate, timely, comprehensive and continuous intelligence is the basis for planning amphibious operations. This intelligence effort is directed by the joint force commander.

d. Superiority of force, including naval and air superiority at the time and place of landing, is mandatory. The landing force can develop its full offensive power only after it is successfully landed with its tactical and logistical support.

e. Each joint task force to be employed in an amphibious operation is organized, equipped, trained, and rehearsed specifically for the task it is to perform. The development of joint team work is essential.

f. As a rule, when attacking large land masses, tactical surprise may be gained by deceiving the enemy as to the time and place the main landing force will be committed. In attack against small land masses, tactical surprise may frequently be achieved by time of landing and mass of force.

g. Plans and orders must be simple in nature and as flexible as the characteristics of the operation will permit. All plans must be in precise detail and in writing. Alternate plans are required.

h. Administrative and tactical plans are developed concurrently at all echelons. These plans provide for distributing key personnel, critical supplies, and equipment to appropriate echelons while still maintaining the tactical unity of the command.

j. The communications—electronics system of each participating command must remain intact and are integrated into a single system by means of lateral connections and employment of common procedures. Additional communications may be required to effect overall control and for communications between components of the force in execution of common and coordinated functions. Alternate means must be provided.

391. Types

Amphibious operations are classified as either ship-to-shore, shore-to-shore, or a combination of both.

a. A ship-to-shore operation is an amphibious operation requiring the transfer of troops, supplies, and equipment from transports or other oceangoing vessels into smaller landing craft, landing vehicles, helicopters, and/or other type aircraft for movement to the beaches.

b. A shore-to-shore operation is an amphibious operation involving the movement of the landing force elements directly from the embarkation area to the landing beaches without transfer at sea.

c. Amphibious operations often may involve both types of movement. Subsidiary interisland or coastal flanking operations are examples of operations in which both types of movement may be utilized. These operations may be totally amphibious in nature or essentially amphibious by virtue of fire, logistical, and other water-borne support of attack forces transported by helicopter and/or other type aircraft.

d. Amphibious shore-to-shore techniques also may be used for special operations on navigable rivers and lakes. These operations may or may not have naval support. River crossings involving wide or swift rivers may employ such techniques. A land campaign involving the use of navigable waters in the interior of a large land mass may use such shore-to-shore techniques, as apply, to transport troops, equipment, and supplies. This will assist in achieving tactical mobility to accomplish the destruction of less mobile forces.

392. Phases

To provide flexibility and to facilitate control, the joint force commander will divide the operation into three successive phases. The essential actions by phase are shown below; these actions may overlap in point of time or occur in different sequence, but usually progress in the order shown. The essential distinction among phases, however, is determined by the command relationships which apply in each.

a. Phase I—Planning and Preparation. This phase begins with

the order initiating the force and appointing the joint force commander. It includes the planning of the operation at all levels; the mounting, training and equipping of the forces; and the reconnaissance and preparation of the objective. In this phase the precision and detailed coordination and planning of the operation is accomplished.

b. Phase II—Embarkation, Movement, and Assault. This phase begins with the embarkation of troops. It includes loading of equipment and supplies; rehearsal necessary to firm up joint team work and to confirm plans; the movement to the objective area; preassault actions; assault and capture of the amphibious task force objective; and the initial consolidation operations. This phase ends with the passage of control of operations ashore from the amphibious task force commander to the landing force commander then established on shore.

c. Phase III—Consolidation and Buildup. This is a transition period between the passage of control ashore and the dissolving of the joint task force by virtue of the operation becoming one of normal land warfare. It includes expansion of the beachhead and tactical organization and consolidation of the final task force objective, to include establishment of facilities and development of the area for the purpose of supporting projected operations. During this phase, the landing force will continue to require naval support for the protection of the transport area and for protection against counter-amphibious operations, and may require naval gunfire, carrier-based air support, and Navy lighterage.

393. Organization and Command

a. Organization and command of joint amphibious operations are in accordance with the basic principles of joint action outlined in FM 110–5. The joint amphibious operation is initiated and terminated by directive from higher authority to the joint force commander. The joint force commander assigns responsibility for and delegates authority for detailed control of Phase II to the amphibious task force commander. The joint force commander may similarly establish other forces, related to, but independent of, the amphibious task force, such as a separate airborne task force.

b. As a minimum, the authority ordering a joint amphibious operation will—

(1) Direct the organization of an appropriate joint force for the conduct of the specific operation.
(2) Provide Army, Air Force, and Navy forces in a combination designed to accomplish the assigned task.
(3) Designate an appropriate command structure to include the command relationship of the joint force with the overseas

area headquarters, with other major commands involved, and with subordinate forces. The overall command of a joint amphibious operation should be vested in a unified command or in a joint task force. A unified command should be employed when it is necessary to establish a new area of operations or when the entire command must utilize limited logistical means. Normally, however, overall command should be vested in a joint task force.

(4) Designate a commander for the joint force from the Service having dominant interest in the overall operation.

(5) Designate the type staff to be formed for the joint force. Irrespective of the type staff formed, it will include Army, Navy, and Air Force officers qualified to handle (as an additional duty) matters concerning atomic weapons.

(6) Divide the operation into successive phases, as cited in paragraph 392. The specific conditions signifying the beginning and end of each phase, and the names, titles and responsibilities of the commanders for each phase are stated.

c. A close and continuous relationship exists between the organization of the landing force and the organization of the corresponding naval elements which transport and support the landing force. The relationship is based on:

(1) *Task Organization.* The composition and organization of the landing force is determined by an evaluation of the tasks required by the assigned mission.

(2) *Economy.* The extensive demands on naval shipping imposed by an amphibious operation require that maximum use be made of available shipping. The elements included in the assault shipping are only those for which a clear-cut need can be foreseen during the assault phase.

(3) *Parallelism of command echelon.* The interrelation of naval and landing force tasks during the preparation of plans and execution of the amphibious operation require the establishment of parallel naval and landing force chains of command, which provide for coordination between commanders at each echelon of the naval and landing force organizations.

d. The forces involved in an amphibious operation are, at various times during the operation, organized into one of three functional forms. These are the—

(1) *Basic tactical organization.* This is the organization which is constituted for normal administrative and tactical purposes.

(2) *Organization for embarkation.* This is a temporary administrative grouping of forces for embarkation and movement.

(3) *Organization for landing.* This is the special tactical organ-

ization of the forces for the assault. It is reflected in the task organization shown in the operation order. (At the conclusion of the assault, the forces usually revert to the basic tactical organization.)

394. Amphibious Task Force

For the accomplishment of Phase II of a joint amphibious operation the joint task force commander organizes portions of his assigned force, as required, into an amphibious task force. It is composed of naval forces, including naval air support forces, embarked landing forces, and the means to control the assigned tactical air effort, and may include Air Force tactical air organizations. In view of the predominance of naval functions in this phase, the commander of the amphibious task force should always be a naval officer. The staff of the amphibious task force commander is augmented as required, by officers from all Services. At the end of Phase II, the amphibious task force is dissolved; the landing force commander reverts to the direct operational control of the joint task force commander; the naval components of the amphibious task force assume the role of supporting the landing force; and the air components thereof come under the operational control of the landing force commander.

395. Attack Force Organization

An attack force is a major subordinate element of an amphibious task force which comprises landing forces, the naval units required to transport them to the objective, and the surface, tactical air, and special units assigned to support them. Attack forces are employed when the distances between landing areas are so great as to prevent direct centralized control by the amphibious task force commander.

396. Organization of the Landing Force

a. General. A landing force is a task organization of specially trained and equipped assault forces, including aviation units and essential logistic support elements, which are to execute the actual assault landing. The landing force size and organization may vary with each operation from a single battalion landing team to a corps.

b. Corps. Corps and army troops are included in the corps task organization for landing. However, the corps and army troops which are to land during the landing of the assault divisions and over the same beaches are attached to the divisions and are included in the assault division landing plans.

c. Reinforced Division. The reinforced division is embarked in a naval transport group. It is organized into regimental landing teams for landing, task groupings of the various supporting arms which are required to initiate division operations ashore, and a reserve task

grouping. The corresponding naval organization for landing consists of landing craft of required types and numbers which are assembled for the vessels of the transport group and, in part, organized into boat groups. Assault troops are sometimes landed directly from landing ships. Helicopter and/or other type aircraft may also be utilized to transport assault troops and supplies in the ship-to-shore movement.

d. Regimental Landing Team (RLT). For use in the conduct of amphibious operations, the term regimental landing team (RLT) is adapted from the general term *combat team* and is a task organization, formed for the purpose of conducting an amphibious landing, and composed of an infantry regiment and the necessary combat and service elements required to execute a tactical plan. The regimental landing team includes in its organization for landing only those elements of the basic infantry regiment and attached units which are necessary to initiate operations ashore. This usually includes the battalion landing teams and a regimental landing team reserve, as well as elements of such units as shore party and engineers.

e. Battalion Landing Team (BLT). The battalion landing team, the basic task organization of the landing force for the amphibious attack, consists of an infantry battalion reinforced by such supporting and service units as may be required for landing and assault of the beach. Since the BLT is a specific tactical task organization for landing and assault of the beach, it should be differentiated from the infantry battalion, which forms its nucleus, and from the embarkation team, which is a temporary administrative organization of all troops embarked in a single transport or landing ship of the assault shipping. Various other elements of the reinforced division which are not a part of the BLT but whose usefulness in the support of the BLT or a higher echelon depends upon the early initiation of operations ashore, may be embarked and landed with the BLT. These may be shore party elements, advance elements of higher commands, liaison elements, and others of a like nature.

f. Task Groups. Task groups of artillery, engineers, tanks, and other supporting arms or services may be used to support initial operations ashore. When task groups are organized separately, within a division or corps, they comprise a separate embarkation group or groups.

g. Reserve Group. Reserve RLT and BLT are organized similarly to assault units. Although not tailored for assault of a specific beach, they must be prepared to land in assault if so directed by the landing force commander.

397. Planning

a. General.

(1) Planning for an amphibious operation differs from that for normal land warfare. This type of operation requires *joint* planning with *detailed coordination* between Services. Greater stress is placed on concurrent and continuous planning at all echelons, because of the long planning time required at each echelon and the need for flexibility to meet changing conditions as they arise. The difficulty of the amphibious assault makes it essential that the attacker exploit any favorable factor at his disposal. An advantage is that normally the attack can be deliberately planned and carefully rehearsed in advance of its execution.

(2) Directives issued at all levels of command should contain as much of the following information as is available and essential to the completion of the plans of the subordinate commanders:

(*a*) Assigned mission.
(*b*) Troop list of the force.
(*c*) Necessary intelligence.
(*d*) Levels of supply to be carried.
(*e*) Shipping allocated to force.
(*f*) General landing areas.
(*g*) Approximate time and date of the operation.
(*h*) Naval gunfire and air support allocated to force.
(*i*) Employment and allocation of atomic weapons.
(*j*) Special defense planning guidance; i. e., air, armor, guided missiles, and atomic weapons.
(*k*) Training emphasis or special training, other than amphibious, if required.

b. Intelligence. The success of an amphibious operation depends in a large measure upon the accuracy, adequacy, timeliness, and effective utilization of the intelligence of the objective area. Before the commander of a force participating in an amphibious operation can make a proper decision and prepare a sound plan of operation, he must have as complete and accurate intelligence as possible in order to evaluate the enemy capabilities. He must also determine the effects of all land, sea, and air factors upon the operations of his force. The importance on intelligence during the planning period is emphasized by the fact that once an amphibious force is committed to action, major changes in the plans are extremely difficult to implement.

c. Tactical. The general scheme of maneuver of the landing force in an amphibious operation is based on the same fundamentals of combat that apply in normal ground operations although certain considerations may require additional emphasis.

(1) The establishment of a force beachhead is the initial mission of any landing force. The three major considerations in determining the extent of the beachhead are—

(*a*) It should provide sufficient space to accommodate the troops, equipment, and necessary installations of the landing force without dangerous congestion.

(*b*) It should provide freedom from enemy artillery fire on the beaches.

(*c*) Since the beachhead line is a tentative defensive position, in the event that enemy reaction to the landing is stronger than anticipated, the beachhead should contain terrain that is as easy to defend as possible. The line must tie in to the beach at its extremities so as to afford maximum natural protection to the vulnerable flanks of the landing area. If the beach is flanked by high promontories, the beachhead line should make use of the defensive possibilities of these promontories. If the beach is not flanked by high ground, the beachhead line should intersect the coast far enough from the landing beaches to prevent attacks along the coast from interfering with unloading operations.

(*d*) Full consideration must be given to minimizing the target potentialities to enemy employment of mass destruction weapons.

(2) The scheme of maneuver must provide for the immediate seizure of critical terrain features which control the beach, boat, and air lanes in order to insure the continuous landing of troops and materiel. Provision must also be made for the early seizure of critical terrain features, which will assist the advance inland of elements of the landing force. The commanders of landing force units assign those critical features in their zone of action as objectives to subordinate units and coordinate with superior and adjacent unit commanders on important details which may not be completely covered in the basic order.

(3) The landing force will seldom be able to seize the entire beachhead in a single sustained attack due to the initial high degree of decentralization of tactical and logistical means. Therefore, the beachhead is usually developed as follows:

(*a*) The attacker first seizes objectives which will prevent the enemy from bringing effective direct small arms fire to bear on the beaches. The trace of the forward limits of the beachhead which is controlled by these objectives is indicated on a map or overlay by a line marked "0–1". Attainment of these objectives by troops in the initial assault waves makes easier the landing of succeeding troops.

(*b*) The attacker then seizes objectives which will permit the commander to reorganize his forces for continuing the attack to seize his assigned portion of the beachhead. Normally this action will prevent the enemy from bringing observed artillery fire to bear on the beaches. The trace of the forward limits of the beachhead which is controlled by these objectives is indicated on a map or overlay by a line marked "0–2". Attainment of these objectives normally makes it possible to land heavier vehicles and equipment.

(*c*) Finally the attacker continues the attack to seize objectives which will provide sufficient space for the maneuver of the command and which will prevent the enemy from bringing effective sustained artillery fire to bear on the beaches. The trace of the forward limits of the beachhead which is controlled by these objectives is indicated on a map or overlay by a line marked "0–3". This normally is called the force beachhead line.

(*d*) The trace of the "0–1", "0–2", and "0–3 (Force Beachhead)" lines should be such that the control of each will protect activities nearer the beach and will provide observation over areas further from the beach. They should be readily identifiable and defensible and should be separated by enough distance that control of each is a definite tactical step toward the establishment of the force beachhead. Rapid expansion and subsequent dispersion is essential.

(4) For purposes of control and coordination of small units, various lines may be established on the ground which do not necessarily coincide with the 0-lines. They may be designated for the purpose of acquainting the commander concerned with the speed of advance or to limit the area of operations of certain types of units such as amphibious tanks and tractors. Such lines should be identifiable on the ground and possess characteristics consistent with the purpose. For example, a line limiting the inland advance of amphibious tanks should include defiladed firing positions from which the vehicles can support the advance as artillery.

(5) The formation for landing and the plan for supporting fires should support the scheme of maneuver. If the desired landing formation is impracticable because of hydrographic conditions, the scheme of maneuver may have to be modified.

(6) The ship-to-shore movement is essentially a waterborne deployment and approach to battle; therefore, the assault is initiated by small units fighting independently. As the at-

tack progresses, control must be regained by successive commanders with as little interruption as possible to the advance to seize assigned objectives.

(7) The commander's initial use of his reserve is more complex than in normal ground operations. The landing craft and/or aircraft scheduled to move the reserve ashore may be committed initially to other tasks and may not be available before the scheduled time. Because of the decentralized nature of initial operations ashore, it may be difficult to coordinate the landing of the reserve with the operations of units already ashore.

(8) Naval gunfire, in conjunction with the other supporting arms, supports the seizure of the objective by destroying or neutralizing shore installations which oppose the approach of ships or aircraft and the landing of troops at the objective. Subsequent to the landing, it is employed to assist the advance of troops ashore. To a large extent, naval gunfire is the base of fire on which the attacker relies to overbalance the firepower of the defender.

(9) Tactical air support is normally provided by the Navy, using carrierborne aircraft. However, if Air Force bases are close enough to the objective area, Air Force units should support the operation. Early planning is initiated to determine air requirements for the operation. Allocations of the available aircraft are made by the joint task force commander to insure that the amphibious task force, the landing force, and the joint task force as a whole are adequately supported.

d. Logistical.

(1) Logistical planning must be accomplished concurrently with the tactical planning. Preliminary plans must be issued to all interested agencies as developed. A complete logistical plan should be issued to all interested agencies at the earliest practicable date.

(2) It is essential that logistical planning for amphibious operations be detailed and coordinate with each participating service. Space afloat and space ashore are both restricted in an amphibious operation; consequently, plans must provide for the minimum of supplies and equipment. In most instances, it will be necessary to change or modify basic and prescribed loads and methods of transportation. Equipment and supplies to be carried and worn by the individual soldier should be specifically indicated. Service and supply units must be held to a minimum and they must be phased to be ashore at the time needed.

(3) The responsibility for the provision of logistical support ashore must be specifically indicated to show the successive passing of this responsibility from element to element of the landing force, corps and/or army, and the communications zone. Detailed plans will indicate phasing and responsibilities for such logistical activities as the opening and closing of beach dumps, establishment of inland depots and supply points, opening and closing of temporary cemeteries, levels of supplies to be ashore by phases, etc.

398. Training and Rehearsal

Training and rehearsal are involved in both phases I and II.

a. The training period prior to an operation must culminate with a joint rehearsal, in which sufficient personnel and equipment are unloaded to test plans and communications, as well as to effect the necessary coordination to insure the success of the operation. The troops must have, use, and know how to maintain all special equipment which will be used in the operation.

b. The rehearsal area should resemble the assault area as closely as possible. Dummy installations, underwater and beach obstacles, and other defensive measures should be set up to simulate actual conditions on the enemy beach.

c. Rehearsal landings will correspond as closely as possible to the anticipated assault landing. Special emphasis is given to the composition of the waves, organization of the control system, time of landing, and adequacy of communications. Amphibious tanks and troops will land, engage simulated targets, and move inland to designated phase lines. Support units should participate in the rehearsal, and plans for evacuation and resupply should be tested. The goal is realism. Commanders will make on-the-spot corrections and conduct critiques to insure that all personnel are prepared for their participation in the forthcoming operation.

d. An important factor to be considered in rehearsals is the rehabilitation of equipment and supplies following the rehearsal. An appropriate interval between the termination of the rehearsal and the departure for the objective must be scheduled to allow for this rehabilitation as well as for making revisions in plans indicated by the rehearsal.

e. Training aboard ship commences immediately following embarkation. Opportunities for training which may occur during the movement to either a training area or to an objective area, are utilized to the fullest extent. The maintenance of the morale of embarked troops is greatly dependent upon a carefully planned program of shipboard training. Orientation and briefing for the operation are continuous.

f. Special emphasis must be placed on: the employment of radio communication and preparedness to employ alternate means of com-

munication during phase II, especially during the initial assault; training of certain personnel in the employment and control of naval gunfire; and special defense measures.

399. Security

The security measures adopted vary with the location and characteristics of the planning, training, rehearsal, and embarkation areas. Details of plans are disclosed only to those individuals whose functions require such knowledge. Personnel with knowledge of future plans do not participate in operations wherein they may be subject to capture. When the length of the voyage does not provide sufficient time for troop briefing, the briefing is accomplished prior to embarkation in carefully guarded areas, and briefed personnel are segregated from outside contact. Undue massing of troops and materiel in training, rehearsal, mounting, and execution areas is avoided.

400. Mounting and Execution

a. General.

(1) *Concentration* is the assemblage of the units of the force, that will be employed together, for the purpose of specialized training and coordinated training of units.

(2) *Mounting* is the preparation made in anticipation of an amphibious operation. The mounting of troop units for an amphibious operation is usually divided into two separate phases, viz: staging and embarkation.

(3) *Staging* includes the subdivision of the force into ship or craft loads and all final preparations for actual embarkation.

(4) *Embarkation* is the actual loading of personnel, supplies, and equipment.

b. Responsibilities. Whenever possible, the mounting agency should be a well-established administrative organization. The landing force commander should not be required to mount his own units and supplies if other means can be provided. The actual embarkation is a coordinate responsibility of naval and landing force commanders and the communications zone section (or port) commander.

c. Embarkation. An amphibious operation is largely dependent upon the successful execution of the landing and the continued support of the landing force once ashore. The success of the operation can therefore be seriously jeopardized by ineffective or improper loading of the transports. From the level of a single vessel to that of the amphibious task force, embarkation of troops, supplies, and equipment must be accomplished by a method which will conform to the requirements of the tactical plan upon debarkation at the objective.

d. Ship-To-Shore Movement.

(1) The ship-to-shore movement is that part of the amphibious operation which concerns the timely deployment of troops and their equipment from assault shipping to the assigned beaches. The ship-to-shore movement extends from the arrival of the assault shipping in the transport area to the completion of the unloading of the assault shipping on the beach. The ship-to-shore movement may be divided into two phases:

(*a*) The *assault phase*, which is primarily tactical in character and must be based upon landing force requirements ashore.

(*b*) The *general unloading phase*, which emphasizes speed, volume, and accuracy of unloading operations.

(2) Helicopters, and other aircraft with vertical take-off and landing characteristics, may be used for any or all phases of the ship-to-shore movement.

(3) Since the amphibious attack is essentially an assault launched from the sea, the ship-to-shore movement must be organized to achieve the desired tactical formation at the time of landing. The scheme of maneuver ashore is, therefore, the primary determining factor in planning and executing the ship-to-shore movement. The plan must also provide for as high a degree of tactical security against enemy counteraction, including the employment of nuclear weapons.

e. Conduct of Assault.

(1) Initial success depends upon the capacity of the boat and/or similar teams for independent and aggressive action. Initially the assault is conducted by these teams to seize critical objectives to eliminate direct fire on the beaches and boat lanes. For this reason, enemy installations located on or near the beach are not bypassed but must be destroyed.

(2) Platoon, company, and battalion commanders progressively assume control as soon as possible after landing to coordinate the attack to enlarge the beachhead.

(3) An opposed landing generally imposes the following limitations on assault units of the landing force:

(*a*) Temporary loss of control by commanders as the landing is made.

(*b*) Decentralization of authority necessitated by temporary loss of control.

(*c*) Initial dependence upon radio as the primary means of signal communication.

(*d*) Initial possession by the enemy of terrain which controls the beach.

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(*e*) The requirement that assault waves must remove enemy fire from the beaches rapidly to permit the uninterrupted landing of succeeding waves.

(*f*) The requirement that assault waves move inland rapidly to prevent congestion on the beach and to avoid presenting the enemy a massed target.

(*g*) Lack of organic supporting weapons during the initial phase of the landing and the requirement that naval gunfire, amphibian tanks, and air support be employed as substitutes during this period.

(4) The fires of naval gunfire, recoilless rifles, rockets, and automatic weapons mounted on Army landing craft, and amphibian tanks in this period must be coordinated to insure a continuous large volume of fire on the beach. The armed landing craft accompany the leading assault wave, providing direct fire support after naval gunfire has been lifted. Subsequently, they may provide flanking fire for the lateral expansion of the initial landing beach. The amphibian tanks continue fire on known and suspected enemy targets as they move ashore. Whenever possible, the tanks cross the beaches and move a short distance inland to cover the unloading of assault troops with direct fire. They support the attack from hull-defiladed positions because of their limited protective armor.

(5) When assault waves reach the shore, they breach obstacles, reduce enemy fortifications, overrun and destroy enemy positions, and occupy initial objectives. Prompt followup of naval and air preliminary bombardment often enables boat teams to seize objectives with a minimum of enemy opposition.

(6) The momentum of the assault must be maintained in the early stages by rapid and aggressive action. Delays for reorganization or assembling of supporting weapons must be limited to the absolute minimum.

(7) Coordinated action by initial assault waves is complicated by the following factors:

(*a*) Boats are beached some distance apart to deny the enemy a concentrated target, introducing gaps in the front of assault units at the time they launch their attack on the beach.

(*b*) All enemy installations may not have been previously located, requiring changes in the scheme of attack of small units.

(*c*) Boats and/or aircraft may not land precisely at the desired point, forcing teams to debark at points out of striking distance of objectives.

f. Combat and Combat Logistic Support.

(1) Combat and combat logistic support for landing force units within the beach support area during the early phases of an amphibious operation is provided by a task organization called a shore party. The mission of the shore party is the establishment, organization, operation, development, and defense of the beach support area as necessary to support operations of forces ashore. Functions of the shore party include: breaching and removing land mines and obstacles in the beach support area and exits thereto; constructing roads and beach exit routes through all types of terrain obstacles; operating organic lighterage; constructing landing and unloading facilities, PW inclosures, etc.; handling troops, equipment, and supplies; establishing and operating beach dumps; processing and evacuating casualties and prisoners of war; providing tactical waterborne mobility for overwater maneuvers; and providing ground troops and direct fire weapons and coordinating supporting areas in the defense of the beach support area against enemy counter-offensive operations.

(2) The shore party is a composite Army and Navy unit commanded by an officer of the landing force. It may be augmented by Air Force elements as required. The landing force component will be formed by augmentation of appropriate elements of an amphibious support brigade. The naval component of the shore party is the beach party, composed of all or part of a naval beach group. The beach party is commanded by the beachmaster, a naval officer who assists and advises the shore party commander on naval matters.

401. Operations Related to Amphibious Operations

a. Many operations which supplement the joint amphibious operation will normally be accomplished. Examples of these are—air operations (less close air support), airborne operations, reconnaissance, employment of long-range guided missiles and undersea warfare operations. Such operations may precede, be concurrent with and/or subsequent to the joint amphibious operation.

b. Operations which have a relationship to joint amphibious operations, in that they possess certain distinctive characteristics of the latter, but in which the attack and capture of a position on shore are not included are—

(1) *Unloading of forces or supplies over friendly beaches.*

(2) *Raids.* A raid is an operation, usually small scale, involving the temporary seizure of a limited objective, or a swift pene-

tration of hostile territory to secure information, confuse the enemy, or destroy his installations. It ends with a planned withdrawal upon completion of the assigned mission.

(3) *Demonstrations.* A demonstration is an operation designed to confuse the enemy, to delay or reduce the effectiveness of his dispositions, and to cause him to commit his reserves against the demonstrating force. When the demonstrating force is capable of landing in enough strength to exploit a favorable situation, this operation is termed a demonstration in force. Otherwise, the landing force conceals its real strength to produce the desired effect.

(4) *Tactical redeployment by sea of ground forces from a hostile shore.* In conducting an amphibious withdrawal the fundamentals applicable to the defensive and to retrograde movements are equally applicable. By appropriate defensive and retrograde action forces and materiel are thinned out and evacuated by falling back on defensive perimeters established in the port areas, beach loading areas, or both. Care must be taken in the establishment of defensive perimeters to insure retention of areas large enough to permit uninterrupted loading and evacuation and to prevent undue massing of forces and materiel creating conditions favorable for the enemy use of mass destruction weapons. Although an amphibious evacuation differs in execution from an amphibious landing many of the fundamentals of an amphibious landing apply to the withdrawal. These fundamentals are—coverage of the withdrawal by artillery, naval action, naval gunfire, naval air and/or air force support; the maintenance of the balance between the evacuation of service support means and tactical troops; the establishment of a control agency or agencies to effect the evacuation; and the withdrawal from the final perimeter to the landing craft on a broad front. The following additional considerations are appropriate:

(*a*) The maximum use should be made of all means of evacuation (sea, air, and land).

(*b*) Transportation should be organized to carry maximum loads in the least turn around time aided and effected by well organized embarkation areas and the early dispatch of control groups from units to the embarkation areas. When shipping space is limited it is important that turn around time between the withdrawal area and the ultimate destination of the forces be held to a minimum. A well organized debarkation area, employing control groups from units, is required at the destination.

(*c*) Coordination should be effected to prevent intermingling of units.

(*d*) As service support is withdrawn, provision must be made to increase the self-sufficiency of tactical troops. This may be accomplished by the establishment of supply dumps to serve successive withdrawal positions, thus saving transportation, permitting close-out of forward supply installations, and eliminating confusion in the loading areas where the maximum effort must be concentrated on loading rather than unloading additional supplies.

(*e*) Appropriate units must be selected and retained in the beachhead to provide service support and embarkation control until the final phase of the evacuation.

(*f*) A close relationship between tactical and administrative planning must be maintained. This is particularly important when the evacuation or destruction of large amounts of materiel, the demolition or denial of materiel of military value, or the evacuation or control of civilian officials or refugees are involved.

(*g*) A reserve of cargo ships, landing ships, and landing craft must be retained through the final phase of the evacuation to meet unforeseen contingencies.

402. Defense Against Amphibious Operations

a. In the preparation for and the execution of defense against amphibious attack, basic considerations of the defending force are the defeat and destruction of the amphibious force before it lands or while landing and attempting to gain a beachhead, and the defeat or containment of such enemy forces that have landed. The fundamentals applicable to the defensive and the offensive are applicable to defense against amphibious operations. The defense adopted will depend upon the character of the coast line, the extent of the coast line to be defended, the type of land mass, the terrain adjacent to the coast line, the communications and transportation network, the forces available to the defense, and enemy capabilities. Except for small island areas where terrain restricts the use of mobile reserves, the defense conducted normally will be of the mobile type. Available Air Force and Navy forces should be used to gain intelligence of the enemy location, strength, and time of attack, to attack the enemy at sea, and to prevent the enemy buildup if he succeeds in landing.

b. In addition to the normal organization of the ground for defense, underwater obstacles and mines are used to obstruct and deny likely landing beaches, exits from beaches are mined, barricaded, and contaminated with CBR agents, and pill boxes and field fortifications are constructed for the use of security elements or forward defensive posi-

tions. Security forces supported by artillery are used to discover the place of attack, to determine the strength of the attack so as to distinguish demonstrations or raids from a full scale amphibious operation, to attack landing elements, to execute delaying action, and to counterattack small raids and feint landings. Holding forces supported by artillery are employed to secure those areas which the enemy must possess to insure his buildup. Likely landing localities are covered to the degree permitted by available forces.

c. It is important that a mobile striking force be available to dislodge the enemy landing before he can complete his buildup, since he is most vulnerable while his combat support and service support are still afloat and his assault forces are ashore. Whenever possible the mobile striking force should consist of armor and motorized infantry supported by artillery. The counterattack by the mobile striking force is further supported by all available air and naval forces. In view of probable enemy air and naval superiority, at least in the area of operations, night rehearsals of the displacement and conduct of counterattack are practiced. Because of the nature of amphibious operations, defending forces may be presented with excellent opportunities for the employment of mass destruction weapons.

403. References

For additional details see FM's series 60.

Section XIV. AIRBORNE OPERATIONS

404. General

Airborne operations consist of the movement and delivery by air, into an objective area, of combat forces and their administrative support for the execution of tactical and strategic missions. Airborne operations capitalize on the speed and flexibility of airpower, combined with the capability of Army forces to fight sustained close combat and to seize and defend terrain. Airborne operations may be joint or unilateral. This section primarily concerns Army aspects of joint airborne operations. However, the material presented is also applicable to unilateral airborne operations involving the movement of army troops by army aircraft in the combat zone.

405. Concepts of Employment

a. The employment of aiborne forces envisions the use of aircraft to overcome distance or geographical barriers or to bypass enemy defenses.

b. Airborne forces in reserve constitute a strategic threat which will exercise a strong influence on enemy capabilities and may compel

the enemy to disperse his defenses to protect vital installations deep in his rear areas as well as in the combat zone.

c. Airborne operations require a high degree of coordination between participating Army, Navy and Air Force forces, as well as other forces operating in or present in the area of operations. Operations should be under theater control for overall planning and supervision with the responsibility for a single operation vested in one commander.

d. For major airborne operations, air superiority is necessary to protect the airborne forces during marshalling, air movement, and establishment of the airhead.

e. Airborne units normally make the initial assaut. When required by the mission, air-landed units then move into protected landing areas and, when organized, attack from the initial airhead to accomplish assigned missions, exploiting the tactical advantages gained. If there is no requirement for an airborne assault, only air-landed units may be employed.

f. To obtain maximum effectiveness in the initial assault, airborne landings are conducted in mass, with surprise, and completed in the shortest possible time.

g. When conducted in conjunction with ground or amphibious operations, airborne operations are conducted to give maximum assistance to the main effort.

h. The airborne assault usually is delivered into areas where there are few organized defenses, where well-organized enemy combat troops are not present initially, and where the enemy is unlikely to have armored strength available for counterattack.

i. Airborne operations may be conducted in daylight or during darkness; however, limitations of presently available navigational and assembly aids favor daylight operations. Special training and rehearsals are required for night operations.

j. The airhead in large independent airborne operations must contain an adequate number of airfields or airfield sites to provide for landing followup forces, supplies, and equipment.

406. Types

Airborne operations may be classified as early link-up, independent, raid, or special operations, depending on their mission, duration, and purpose. There is no definite line of demarcation between types. An operation may possess the characteristics of more than one type. Most operations are of the early link-up or independent types. In early link-up operations, substantial buildup of troops, supplies, and equipment is not planned, whereas, independent operations involve sustained logistical support and substantial buildup of troops, supplies, and equipment entirely by air. An eventual link-up with ground or

naval forces is planned in independent operations. For information relative to raids, special operations, and other details see FM 57-30.

407. Missions

Airborne forces may be assigned missions of strategic as well as tactical significance. The general missions of airborne forces are—to attack, seize, and hold important objectives; to exploit initial airborne assaults; and to occupy areas or reinforce units beyond the immediate reach of other surface forces. Early link-up operations usually involve seizure of important objectives such as critical terrain features, communications centers, vital river crossings, and airfields or other important installations designed to facilitate the advance of friendly forces, to prevent withdrawal or reinforcement of enemy forces, to exploit mass destruction weapon attacks, to prevent movement of enemy reserves, or to deny the use of an area to the enemy. Independent operations usually consist of airborne invasions deep in enemy territory to establish an airhead from which to launch further ground operations and for seizure of an advance base to extend the operational or logistical activities of Army, Navy, or Air Force forces.

408. Capabilities and Limitations

a. Capabilities. Airborne forces provide a means by which a commander may decisively influence operations. Airborne forces possess inter-theater, as well as intra-theater, mobility. This mobility extends the opportunities for rapid and decisive maneuver to gain tactical advantage or strategic surprise. A commander may rapidly mass airborne forces in critical areas to gain decisive tactical advantages. Strategic surprise may be atttained by rapid shifts of airborne forces over large distances. Airborne forces may cross terrain barriers such as water, mountains, and jungles and conduct sustained military operations. Airborne forces are particularly suited for execution of turning movements and vertical envelopments, for employment in combined armored-airborne operations, for operations in conjunction with other special forces, and for exploitation of deep support, or strategic, atomic attack.

b. Limitations.—Air superiority is a requirement in independent or deep penetration type airborne operations. Limited objective missions may be executed when the enemy has general air superiority, by massing of friendly fighter protection, by night landings, or by surprise. The limitations of currently available transport aircraft preclude the movement by air of medium and heavy tanks and certain other items of heavy equipment into the objective area, thereby limiting the capabilities of airborne and airlanded units, particularly their ability to protect themselves against counterattack by large armored forces. This limitation is offset to a great extent by the use of light

but powerful antitank weapons and by the provision of strong air support. The mobility of airborne units, once on the ground, may be limited by reduced availability of ground transportation. The restrictive effect of bad weather is much greater in airborne operations than in normal ground operations. Unfavorable weather and unexpectedly strong enemy air reaction may prevent adequate reinforcement and resupply by air. Commanders must be cognizant of these limitations when assigning missions to airborne forces.

409. Phases

Airborne operations are usually initiated by an assault phase executed by parachute or parachute and air-landed elements of the airborne force whose mission is seizure of the initial airhead. This is followed by a defensive phase, during which the initial airhead is defended until link-up with friendly forces or until sufficient forces have been phased into the objective area to initiate the exploitation phase. The exploitation phase normally is accomplished with air-landed reinforcements. The buildup of troops, supplies, and equipment required for exploitation normally is initiated as early as feasible.

410. Troops and Facilities Required

Airborne operations require airborne, air-landed, troop carrier, and supporting units whose strength, state of training, supplies, and equipment insure accomplishment of the missions assigned. In addition to the support normal to any operation, airborne operations require dispersed marshalling facilities and departure airfields with suitable capacities. Service support must be adequate to meet operational requirements. Service elements of the airborne force may operate both within the airhead and in the departure area. Supporting agencies, such as communications zone, provide designated service support.

411. Relative Characteristics of Airborne and Other Ground Operations

Tactical operations of airborne units differ from those of other Army forces in the following respects:

a. Airborne units usually have limited heavy artillery, tanks, and heavy equipment in the airhead; this is normally compensated for by extensive air support.

b. An airborne unit must be prepared to fight in all directions; however, the circular shape of the airhead permits rapid employment of reserves and massing of supporting fires at threatened points.

c. The requirement for protection of those airfields, airstrips, and landing areas required for the buildup restricts the freedom of maneuver of airborne units.

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d. The restrictive effect of bad weather is greater.

e. Supporting services are initially present in limited numbers in airborne operations, thereby increasing the difficulties of control, maintenance support, supply, and communications.

f. Troops in airborne operations are extremely vulnerable during landing and assembly.

g. Limited mobility and firepower increase the vulnerability of airborne units to enemy armor.

h. Airborne assaults are usually made in relatively undefended areas, facilitating initial tactical surprise.

412. Relative Characteristics of Parachute, Assault Aircraft, and Air-Landed Operations

The Army component of an airborne force may consist of any desired combination of airborne and air-landed units, which may participate in operations in either a parachute or air-landed role. Relative characteristics of parachute, and air-landed operations are—

a. Parachute operations require specially trained units, whereas Army units employed in an air-landed role require a minimum of specialized training.

b. Parachutists can land on any terrain which is relatively free of obstacles dangerous to the individual; however, relatively unobstructed areas are required for the landing and recovery of items of heavy equipment dropped by parachute. Assault aircraft landings can be made on any relatively level and unobstructed terrain having suitable trafficability. Other fixed-wing aircraft normally require use of captured airfields or construction of airstrips. Rotary-wing aircraft, and other aircraft with vertical take-off and landing characteristics, when employed, extend the flexibility of airborne forces through their ability to land in areas otherwise accessible only to parachute units.

c. Assault aircraft can land heavy vehicles and equipment on terrain which is impracticable for other types of fixed-wing aircraft. Vehicles, heavy weapons, and heavy equipment can be dropped by parachute, using heavy-drop techniques, on a wide variety of terrain.

d. Parachute troops can be delivered into an area faster than air-landed forces; however, heavier and more powerful units can be delivered by air-landed methods in tactical groupings organized and ready to engage in combat upon landing.

413. Command, Control, and Functions

a. The theater commander requests the forces and facilities needed to execute and support required airborne operations. Within the limits of the means provided, he determines the scope of the airborne operations to be conducted within the theater.

b. Airborne divisions normally are held in reserve when not employed in their primary role; they may be employed as infantry divisions if required.

c. Airborne operations should be under theater control for overall planning and supervision.

d. Airborne and air-landed units, when employed in airborne operations, are committed as part of a joint force consisting of required Army, Air Force, and, when appropriate, Naval units.

e. For planning and executing airborne operations in a theater which has large airborne forces assigned for frequent employment, the theater commander may establish an airborne unified command. The theater airborne unified command normally commands all airborne forces in the theater except those which the theater commander temporarily assigns to other forces. The theater airborne unified command normally will plan and execute operations which employ the major portion of the theater airborne forces and normally will establish subordinate joint airborne task forces for the execution of airborne operations which employ lesser portions of the theater airborne forces.

f. In a theater to which few airborne forces are assigned and their contemplated employment in an airborne role is infrequent, the theater commander normally will establish temporary joint airborne task forces for the execution of required operations.

g. The Army element of the airborne force normally will pass, on order, to the command of the appropriate commander in whose zone it is operating, when that commander is able to control, support, or appreciably influence the action of the airborne force. This is no later than the time of ground juncture.

414. Joint Considerations in Airborne Operations

Joint considerations include those phases or activities of vital interest to more than one service, including selection of drop and landing zones, preparation of the air movement plan, selection of marshalling areas and departure airfields for assault forces, and selection of departure and airhead airfields to be used for buildup and for evacuation of troops, supplies, and equipment. The joint airborne force commander exercises planning direction and effects coordination between participating elements of the joint airborne force.

415. Army Component Responsibilities

The Army component of an airborne force is responsible for—

a. Concentration, organization, equipping, and logistical support of Army elements of the airborne force.

b. Conduct of training and rehearsals for airborne and air-landed units in preparation for planned operations.

c. Planning and execution of the ground phase of the airborne assault.

d. Airfield repair and construction within the airhead until surface link-up or until such time as heavy transport aircraft can land in the airhead and the airhead is secure.

e. Evacuation of personnel, supplies, and equipment to designated airhead airfields.

416. Air Force Component Responsibilities

The Air Force component of an airborne force is responsible for—

a. Concentration, organization, equipping, and logistical support of Air Force elements of the airborne force.

b. Provision of necessary Air Force equipment and facilities for joint training of airborne and air-landed units.

c. Planning and execution of Air Force participation in the airborne operation.

d. Air movement of personnel, supplies, and equipment to landing areas in the objective area in conformance with the Army force commander's requirements.

e. Operation of air terminal facilities.

f. Evacuation from airfields or landing areas within the airhead to rear airfields in conformance with the Army force commander's requirements.

g. Construction, repair, operation, and maintenance of airfields in the objective area after surface link-up or after heavy transport aircraft can land in the airhead and the airhead is secure.

417. Mounting Agency Responsibilities

The agency responsible for mounting the airborne force, normally a communications zone agency, is responsible for—

a. Provision of administrative support, to include necessary transportation assistance, for concentration, training, and marshalling.

b. Procurement and delivery of supplies and equipment to rear air bases.

c. Evacuation from rear air bases.

418. Field Army and Corps

a. Every field army and corps must be capable of participating in large-scale airborne operations. Forces designated for such operations should be given warning directives well in advance.

b. The theater commander may direct an army headquarters or corps headquarters, with appropriate supporting troops, to emphasize preparation and training for participation in airborne operations. This directive does not preclude commitment of the designated units to ground operations. The decision to direct such specialization de-

pends largely on the anticipated number, size, and frequency of airborne operations and the number of army and corps headquarters in the theater.

c. The strength, composition, and equipment of units assigned to a field army or a corps for an airborne operation are contingent on the assigned mission, the area of operations, enemy capabilities, probable duration of the operation, and the aircraft and troops available.

d. Field army and corps commanders influence the action in airborne operations by the same means as in normal ground operations and, in addition, by timely shifts of priorities for air movement of troops, supplies, and equipment into the airhead.

419. Airborne Division

The basic large tactical airborne unit is the division. Its primary role is execution of airborne assaults. It is capable of landing in unprepared areas and immediately and effectively engaging the enemy. The airborne division, as initially committed, can be expected to fight and exist as a tactical unit without relief or resupply for 48 to 72 hours. The division requires approximately 7 days to plan and prepare for an airborne operation, unless already marshalled near departure airfields. When marshalled, this period may be reduced to approximately 48 hours after receipt of essential planning information. For further details concerning the airborne division, refer to section III, chapter 12.

420. Air-Landed Units

All units of the field army capable of moving by air should be trained for such movement by day or night either in a combat role or in an administrative movement, and should be prepared to function with only that equipment which has been air-transported. Any unit may be adapted for air movement after sufficient training and with certain modifications of equipment. Extensive modification may preclude the unit's effectively performing its primary mission and therefore make air movement undesirable. Air movement is desirable when geographical obstacles, hostile forces, distances, and time considerations preclude or seriously limit the use of other types of movement.

421. Planning

a. General. An airborne operation plan is the outgrowth of continuous preliminary planning by theater, airborne force, and subordinate unit staffs. This planning is based on the theater mission, availability of aircraft, and the changing tactical and logistical conditions in the theater. The theater planning staff considers all possible airborne operations which will facilitate accomplishment of the theater mission. From among these emerge certain probable operations that

are developed in greater detail by the theater planning staff and the theater airborne command or other airborne force charged with detailed planning and execution of specific operations. Planning follows the same principles as in normal ground operations but includes consideration of technical problems related to airborne operation.

b. Sequence. Detailed planning for an airborne operation is best developed by working backward from the objective area in the sequence: tactical plan, landing plan, air movement plan, and marshalling plan.

c. Tactical Plan. The tactical plan is prepared with minimum delay after receipt of planning directives and forms the basis for all other plans. The assigned mission is translated into terms of an airhead that must be seized to accomplish that mission. The principal factors that determine the location, extent, and form of an airhead are the mission of the force, enemy capabilities, offensive and defensive characteristics of the terrain, capabilities of the force involved, landing areas available, and the expected time of link-up or reinforcement. The airhead must contain adequate space to permit depth of defense and necessary room for maneuver and to insure contemplated landing of troops, supplies, and equipment and protection of critical installations. The scheme of maneuver is based upon normal considerations governing conduct of ground operations, modified by the special conditions imposed by dispersed landings and the lack of initial command control. The scheme of maneuver for seizing and defending an airhead is prescribed by: assigning missions to subordinate units; by designating objectives, an airhead line, a reconnaissance and security line, and boundaries; by prescribing a task organization; and by providing for a reserve. The airborne force is organized to execute the assigned mission and may include any required combination of airborne and airlanded units.

d. Landing Plan. The landing plan indicates the sequence, time, and place of arrival of troops and materiel in the objective area. The landing plan is based primarily on supporting the tactical plan. The nature and location of landing areas are important in formulating the scheme of maneuver. The general location in which they are to be established is governed by the mission. Landing areas should provide for dispositions favorable to the ground tactical plan and be of sufficient size to accommodate the forces involved.

e. Air Movement Plan. The air movement plan, prepared jointly by Army and Air Force elements of the airborne force and coordinated by the joint airborne force, indicates the phased movement of the airborne force into the objective area by prescribing the use and allocation of troop carrier units and facilities in a manner which meets the requirements of the Army component commander, as far as technical and tactical limitations permit.

f. Marshalling Plan. Marshalling is the process by which units of the airborne force complete final preparations for combat, move to departure airfields, and load for take-off. The marshalling plan is based on the plan for air movement and covers movement of units of the airborne force to departure airfields, responsibility for provision of certain facilities and services while units are marshalling, plans for loading of aircraft, and briefing of troops for the forthcoming operation.

g. Consolidation and Buildup Plans. After assault units have seized their objectives and have accomplished initial missions, a temporary transition to the defensive usually is necessary. This transition can be effected with minimum difficulty if the requirement for defense of the airhead is considered carefully when preparing the tactical plan for the assault. In preparation for the defensive phase, the commander plans to phase troops and supplies into the airhead, to reinforce his artillery and other supporting fires, to establish an integrated antitank defense, to reinforce his reconnaissance and security units, and to supplement his antiaircraft defense. The plan is flexible to permit changes as the tactical situation varies. The plan for building up troops and supplies in the airhead must support the overall mission of the airborne force. Some major factors to be considered in the buildup plan are airfield construction requirements, development of a system for the reception of troops and materiel, concentration of units for further operations, and installation of logistical facilities on a scale to support current and contemplated operations.

h. Exploitation Plans. The exploitation phase normally will not exist in early link-up operations. Plans for exploitation in independent type operations may include:

(1) Enlarging the airhead as an advance air base, naval base, port, staging area, or missile site.
(2) Launching large-scale ground operations from the airhead.
(3) Seizing, or denying the enemy use of, critical terrain, road and rail nets, signal communication facilities, canals, natural resources, and protecting potential allies.
(4) Destruction or capture of manufacturing areas, resources, missile sites, airfields, or enemy forces.
(5) Seizing terrain or other objectives inaccessible to other types of ground troops.

i. Juncture Plans. Plans to facilitate juncture include provisions for assumption of command; command and staff liaison; a system of mutual recognition and identification; early radio contact to establish frontline positions; coordination of schemes of maneuver and fire support, to include fire coordination, no-fire and bomb lines; and coordination of communication plans. If initial contact is with amphibious forces at a port or shore line, plans are made for eliminating

enemy opposition, coordinating naval gunfire and air support, and signaling safe entry to amphibious units.

422. Training and Rehearsals

Appropriate advance training and rehearsals are undertaken for airborne and air-landed operations. Rehearsals may include loading and unloading, communication procedures, assembly and control procedures, execution of the tactical plan, and supply and transportation procedures. Every effort should be made to stage rehearsals under conditions paralleling those to be found in the actual operation.

423. Security

Care must be exercised to minimize occasions when airborne forces are massed to the extent that they constitute profitable targets for mass destruction weapons, particularly when reserves, command installations, logistical installations, and air-landed reinforcements are concentrated near the center of an airhead. Appropriate counterintelligence measures are undertaken during all phases of an airborne operation with particular emphasis on secrecy in order to retain the characteristic surprise as to the time and place of the air landing.

424. Execution

a. General. The air movement of an airborne force should deliver the force to its assigned landing areas, in mass, with minimum dispersion in time and space, and in the best position to execute the selected scheme of maneuver. Ground combat in airborne operations is based upon the same principles as combat in normal ground operations. In an airborne operation, centralized planning and initial decentralized operation are necessitated by the fluid character of combat and the requirement for rapidity of decision and aggressive action.

b. Landing and Reorganization of Airborne Units. Landing and reorganization of airborne units and their materiel are executed with maximum speed and precision. When necessary, security is sacrificed for speed and control of reorganization. Airborne troops normally are landed directly on, or close to, their objectives. However, they may be landed some distance away depending on the availability of landing areas and enemy capabilities and may attack the objectives with conventional ground attacks. Surprise is enhanced by landing on the objective or making the move to the objective as short as possible, although it is desirable that troops have sufficient time to collect equipment and assemble as tactical units before engaging in combat. Assembly areas should be located close to landing areas and should provide cover and concealment. The consolidation of the initial airhead is complete when all units have seized their objectives, are reorganized, and communications are established.

c. Assault. The initial assault normally is executed under decentralized control and stresses the coordinated action of small units to seize initial objectives rapidly before the advantage of surprise is lost. All commanders attack as rapidly as the situation permits, utilizing all available fire support. Reconnaissance units assigned to seize the reconnaissance and security line land early and move out rapidly to predetermined locations. If initial objectives are heavily defended, the bulk of the combat force is assigned the task of seizing these objectives. If the initial objectives are lightly defended, the bulk of the force may be employed in clearing assigned sectors and preparing defensive positions in depth. United landed in areas other than those planned direct their efforts to the accomplishment of the general mission and establish contact with their respective headquarters as soon as practicable. As soon as initial objectives have been captured, units seize and organize such further objectives as will facilitate the establishment of a coordinated defense. Defensive positions are improved, communications are supplemented, additional reserves are reconstituted as necessary, and other measures are taken to prepare the force to repel enemy counterattacks or to resume the offensive.

d. Establishment of Command Posts and Communications. The immediate establishment of communications is essential for regaining command and control after the initial assault. To facilitate command and control, communication is maintained within the airborne force, with supporting air and naval forces, with troop carrier forces, with communications zone agencies concerned with buildup, air supply, and air evacuation, and with other airborne or ground forces having common or coordinated missions.

e. Landing and Reorganization of Air-Landed Units. Air-landed units, as required, are phased into the objective area as rapidly as practicable. Balance is maintained between combat and service units. Combat loading is prescribed during air movement to the maximum extent possible. From the deplaning area, air-landed units move to designated assembly areas, carrying with them all equipment needed for immediate tasks. Tactical integrity is regained after reaching assembly areas.

f. Development of the Airhead.

(1) After the initial assault landings have been completed and the initial ground missions accomplished, the major consideration is the organization of the airhead line. When, because of the mission or enemy resistance within the airhead, units do not land on or near their objectives, the advance to, and seizure of objectives and critical terrain features along the airhead line is accomplished with maximum speed. For purposes of coordinating this advance, the airborne assault commander may designate successive ob-

jectives or phase lines. These successive objectives facilitate such reorganization of attacking troops, passage of lines, coordination of artillery fires, and changes in the direction of the attack as may be desirable.

(2) The airhead line is occupied and organized to the extent demanded by the situation. Adjustments in the preplanned dispositions of troops and installations are made by appropriate commanders to fit the realities of the terrain and the situation. Appropriate reconnaissance and security measures are taken, which usually include the reinforcement of the reconnaissance and security line. The degree to which the airhead line is actually occupied and organized for defense is determined largely by the mission, the enemy capabilities, and the defensive characteristics of the terrain.

(3) The buildup of the airhead proceeds concurrently with the seizure and organization of the airhead line. As additional combat troops arrive they are used to reinforce frontline positions, to prepare defensive positions in depth, to constitute reserves, and to prepare for such other operations as the mission may require.

g. Air Support. Offensive air support executes interdiction missions to destroy or delay enemy reinforcements attempting to reach the airhead. Normally, close air support during the initial phases of the airborne assault is provided by aircraft on air alert over the airhead. Reconnaissance air support is employed primarily on visual reconnaissance to detect and report enemy movements which may affect the forces in the airhead.

425. Defense of the Airhead

a. The defensive phase covers the time during which the airborne units defend the objectives seized and ends when a ground link-up is effected, the force is withdrawn, or when sufficient reinforcements and service support are air-landed to enable the force to assume the offensive. During the defensive phase the airborne force faces outward from the center of the airhead. The bulk of the force normally is disposed to occupy positions on the airhead line forming an extended variation of the position defense. The defense is conducted as discussed in paragraphs 285 and 286 except that the reserve is relatively smaller and additional forces required are obtained from areas not heavily engaged. Normally, strong defensive positions are organized along the airhead line covering the main routes of approach into the airhead. Reserves are held in positions of readiness to the flanks or rear, prepared to counterattack, to occupy defensive positions, or to execute blocking missions.

b. The airhead contains adequate space for defense in depth. As the pattern of the enemy counterattacks develop, units are shifted to reinforce threatened areas, or, if forced by enemy action, planned withdrawals are executed to previously selected and prepared positions to the rear of the airhead line. Although specifically designated reserves are usually smaller than in normal ground operations, the generally circular shape of the airhead facilitates the commitment of reserves and other forces not engaged with the enemy and facilitates the reconstitution of new reserves. The final airhead line to which the airborne force withdraws must contain adequate space for maneuver, for protection of critical installations, and for conduct of such air-landing or withdrawal operations as are planned.

c. Defense against enemy armor requires increased emphasis in airborne operations. If the enemy has a preponderance of tanks it is necessary to counteract this advantage by air strikes, night attacks, utilization of terrain which limits tank employment, and by concentration of antitank means. Defensive positions selected must take advantage of natural and artificial tank obstacles. Secondary avenues of approach and gaps between defensive positions are covered by small detachments and antitank weapons and obstructed by demolitions, obstacles, and mines. Daylight withdrawals from defensive positions are avoided. Antitank weapons are located in the greatest depth in the most dangerous sectors. Artillery may be employed in a secondary role to further strengthen the antitank defense.

426. Subsequent Operations

a. Exploitation. Ground operations to exploit the advantages obtained by the establishment of the airhead follow the normal pattern.

b. Subsequent Role of Airborne Units. After the airhead has been firmly established and juncture has been established, or sufficient air-landed reinforcements together with the required administrative support are available, the force may assume the offensive. At the appropriate time airborne units are relieved to permit reorganization and preparation for subsequent airborne operations.

427. Withdrawal from an Airhead

Withdrawal from an airhead may be forced by the enemy or may be made voluntarily. Advance planning is imperative as the limitations transport aircraft and the circular nature of the airhead introduce complicating factors not present in the normal ground withdrawal. The plan usually provides for evacuation of an airhead in the following sequence: supplies, materiel, and troops. When a forced withdrawal is to be executed, air superiority is essential.

428. References

For additional details see FM 57–20, FM 57–30, FM 101–5, and FM 101–10.

CHAPTER 12

THE DIVISION

Section I. THE INFANTRY DIVISION

429. Organization

a. The infantry division is the basic combined arms organization of the Army field forces. It is the smallest unit composed of all the essential combined arms and services which can conduct, by its own means, army tactical operations. It can strike or penetrate effectively, maneuver readily over any type of terrain, and absorb reinforcing units easily. It can act alone or as part of a larger unit.

b. The organization of the infantry division includes the minimum number of organic units with which it can be expected to engage in sustained combat. In many situations, in order that the division may engage in decisive operations, it must be reinforced with additional means such as field artillery, armor, engineer, antiaircraft artillery, and service elements.

c. The doctrines of combat, enunciated in preceding chapters of this manual, apply to the operations of the infantry division.

430. Infantry Division in Combat

a. General. The combat value of the infantry division derives from its ability to combine the action of the various arms and services, to maintain combat over a considerable period of time, to conduct sustained combat operations over varying terrain, and to gain and hold ground. The ability of the infantry division to control and supply reinforcing units such as artillery, armor, engineers, and additional service units gives it a flexibility which contributes greatly to its combat effectiveness. With special training and special equipment it can participate effectively in any type of special operation.

b. Reconnaissance and Security. The army or corps reconnaissance elements or covering forces may be operating in advance of the division. While cooperation and contact between these reconnaissance elements and those of the division are necessary, their presence in no way relieves the division commander of responsibility for reconnaissance by, and security of, his own command.

c. Coordination. In combat, the mission assigned the division may require it to act in close coordination and cooperation with adjacent divisions or to operate at a distance from the main force. The decisions and actions of the division commander in either situation are

predicated upon the greatest assistance to the successful execution of the mission of the higher commander.

d. Combat Teams and Task Forces.

(1) Situations will arise during combat when it becomes desirable to decentralize command functions normally exercised in division headquarters. In such situations combat teams are formed. For details see paragraph 27.

(2) When the situation makes such action advisable, the infantry division can readily organize mobile task forces whose major components include infantry and artillery battalions and all or part of the divisional tank battalion. Such a force may be augmented by the attachment of suitable reconnaissance, engineer, signal, and medical elements.

431. Infantry Division, Motorized

When fully motorized by the attachment of additional transport, the infantry division is especially suited to execute the following types of operations:

a. To provide close support to armored units; to consolidate and hold gains made by such units.

b. To seize and hold important localities pending arrival of less mobile forces.

c. To exploit success achieved by mass destruction weapons, armored, airborne, and other units.

d. To execute envelopments and turning movements either in close cooperation with armored and other mobile units or, under favorable conditions, to execute these operations independently.

e. To constitute a powerful mobile general reserve for use either offensively or defensively as the situation demands.

432. Infantry Division Air Transported

When the infantry division is moved by air, the type transport aircraft provided will determine what heavier items of division equipment may accompany it. Medium tanks, tanks recovery vehicles, and a few other items of ordnance and engineer equipment are not presently air-transportable. With minimum substitutions, the infantry division may be made completely air-transportable, with little or no reduction in its combat capability, except as caused by the substitution of light for medium tanks. The infantry division has neither the means nor the training to enable it to execute airborne assaults by parachute or to permit it to land in enemy-held areas not previously secured by friendly troops.

433. References

For details see T/O & E's and FM's of the 6, 7, and 17 series.

Section II. THE ARMORED DIVISION

434. General

The armored division is the basic large armored unit of the combined arms. It comprises a balanced force of essential arms and services so organized and equipped as to make it tactically and administratively self-contained and especially suited for missions which require great mobility and firepower.

435. Organization

a. A division headquarters, three combat command headquarters, a division artillery headquarters, and a trains headquarters comprise the larger command and control elements of the division. The combat command headquarters are tactical headquarters with no organic troops other than their own headquarters companies.

b. Battalions and other units, both combat and service, are attached to or placed in support of combat commands by the division commander in accordance with the missions he assigns these commands. Division artillery headquarters, operating under division headquarters, exercises command over the division artillery whenever the tactical situation permits. The trains headquarters is a tactical headquarters which provides for the control, movement, and protection of those elements of the division trains assigned to it. It also performs administrative functions for the rear echelon of division headquarters. It exercises no technical supervision of units of the division trains.

436. Combat Formations

a. Combat Commands. The organization of the armored division provides great flexibility in the composition of its combat formations. When organizing for combat, the armored division is prepared to fight in two or three flexibly organized combat commands. The composition of each is varied from time to time to perform most advantageously the tasks at hand.

b. Task Forces. The units within the combat command ordinarily are organized under the combat command commander into smaller task forces consisting basically of tanks, armored infantry, and armored engineers. Each task force usually consists of a reinforced battalion commanded by the battalion commander. Two types of reinforced battalions are normally formed: the attachment of tank units to an armored infantry battalion; and the attachment of armored infantry units to a tank battalion. Armored engineer detachments normally are attached to these reinforced battalions. The composition of these small task forces may be changed rapidly to meet varying tactical situations. The proportion of tanks and armored in-

fantry within these reinforced battalions varies. One may be strong in tanks while another may be strong in armored infantry, but tanks and armored infantry are always employed together. Artillery battalions may be attached to or placed in support of the combat command. Artillery battalions normally are not attached to reinforced tank or armored infantry battalions but are designated as direct support battalions for them. Reconnaissance and service elements attached to a combat command operate under direct control of the commander of the combat command.

437. Characteristics

a. General. Successful operation of the armored division depends upon the proper utilization of its mobility, firepower, and shock action.

b. Mobility. To achieve the maximum mobility, movements must be planned and coordinated. Techniques of marching, maintenance and resupply of fuel, lubricants, and spare parts must be perfected. Obstacles, terrain, and weather are restrictive factors affecting the mobility of armor.

c. Firepower. To achieve the maximum utilization of firepower, adequate supplies of ammunition must be available and in the possession of the combat units; resupply must be adequate and timely.

d. Shock Action. The firepower and mobility of the armored division are utilized to permit it to close with the enemy to exploit its shock action with decisive results. A well organized and defended position, protected by obstacles and mines, restricts the employment of shock action and increases the importance of firepower.

438. Operations, General

The armored division may be employed in most types of ground combat either as part of a larger force or independently for a limited period of time. It is specially suited to execute the following type missions:

a. Offensive operations planned to achieve deep penetration and seizure of decisive objectives such as dominating terrain, communication centers, bridges, lines of communications, higher enemy headquarters, and other vital areas in the hostile rear, or envelopment and destruction of hostile forces.

b. Operations utilizing the armored division in mobile defense, as a counterattack force of a larger unit in defense, or as a covering force in retrograde movements.

c. Destruction of hostile armor.

d. Exploitation of successes of other units and of mass destruction weapons.

439. Offensive Operations

a. In offensive operations the employment of the armored division is dictated by its outstanding characteristics of independent mobility and predominant tank strength. Where these characteristics can be employed effectively, the armored division may lead or provide the principal effort in the initial attack. Under circumstances where the armored division cannot initially be employed effectively, or is held in reserve during the reduction of a strongly organized area, it must be prepared to attack through infantry divisions as soon as the obstacles have been breached or bridged. Generally, the initial attack of the armored division employs teams of tanks and armored infantry, supported by massed artillery fires and other weapons in rapidly repeated attacks on successive objectives, moving ever deeper into the enemy's defensive organization, destroying his reserves, overrunning his artillery, and disrupting his communications. The momentum of this initial attack by the armored division must be maintained.

b. As soon as the hostile defensive organization is penetrated, the armored division moves rapidly to the exploitation phase, advancing in one or more columns deep into enemy territory to seize vital communications centers or terrain objectives. During this phase, armored units where practicable, will attack from march columns, will bypass strong resistance, will make hasty crossings of streams capitalizing on the amphibious characteristics of the armored personnel carriers, and will perform any special operations necessary to accomplish their mission.

440. Defensive Operations

In defense, the armored division is best employed in mobile reserve as a counterattack force. It may be assigned a frontline defensive sector to occupy. When so employed, its sector must be designed to permit it to compensate for its small infantry force while capitalizing on its strength in armor. This can be achieved by employment of mobile defense methods which permit it to hold wide fronts with small infantry garrisons backed by strong and mobile reserves. When reinforced by additional infantry, position defense methods may be employed.

441. References

For details see T/O & E's of the 17 series and FM 17–100.

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Section III. THE AIRBORNE DIVISION

442. Organization

The airborne division is the basic large unit of the combined arms organized, equipped, and trained primarily for the conduct of airborne operations. In general, the airborne division has lighter and less equipment than the infantry division. The airborne division organization is designed to compensate, in part, for the inability to transport organic tanks by air and the consequent vulnerability to enemy armor, and to provide for the technical aspects of its entry into combat by airborne assault.

443. Organization for Combat

In organizing for airborne operations, the airborne division is divided into an assault echelon, a follow-up echelon, and a rear echelon. For the conduct of the initial airborne asault, decentralization normally is effected by organizing the assault echelon into combat teams, a division reserve, and division troops. The followup echelon is composed of that additional portion of the division which is brought into the airhead after the initial assault. It normally contains additional transportation, heavy equipment, supplies, and service and maintenance personnel and may move to the objective area by surface means or by air. The rear echelon usually does not enter the airhead by air. It normally consists of administrative elements of the division and subordinate units.

444. Employment in a Ground Role

When the airborne division is employed in a ground role, with all of its vehicles, equipment, and personnel, its combat capability is approximately the same as that of the infantry division. If committed to sustained action in normal ground operations, the airborne division should be given additional heavy transportation and equipment.

445. References

For details, see section XIV, chapter 11, T/O & E's of the 57 series, FM 57–20, and FM 57–30.

APPENDIX I

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FM 7–40	Infantry Regiment.
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FM's series 17	Armor.
FM 19–5	Military Police.
FM's series 19	Military Police.
FM 20–100	Army Aviation.
FM 21–5	Military Training.
FM 21–8	Military Training Aids.
FM 21–10	Military Sanitation.
FM 21–30	Military Symbols.
FM 21–40	Defense Against CBR Attack.
FM 21–45	Defense Against Biological Warfare.
FM 22–10	Leadership.
FM 24–5	Signal Communications.
FM 25–10	Motor Transportation Operations.
FM 27–5	United States Army and Navy Manual of Civil Affairs/Military Government.
FM 27–10	Rules of Land Warfare.
FM 30–5	Combat Intelligence.
FM's series 30	Military Intelligence.
FM 31–15	Operations Against Airborne Attack, Guerilla Action and Infiltration.
FM 31–20	Operations Against Guerilla Forces.
FM 31–21	(Title classified.)
FM 31–25	Desert Operations.
FM 31–35	Air-Ground Operations.
FM 31–50	Combat in Fortified Areas and Towns.
FM 31–60	River-Crossing Operations.
FM 31–70	Basic Arctic Manual.
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FM's series 55	Transportation.
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FM 72–20	Jungle Warfare.
FM 100–10	FSR, Administration.
FM 100–11	Signal Communications Doctrine.
FM 100–15	FSR, Larger Units.
FM 100–31	(Title classified.)
FM 101–1	SOFM, The GI Manual.
FM 101–5	SOFM, Staff Organization and Procedures.
FM 101–10	SOFM, Organization, Technical, and Logistical Data.
FM 110–5	Joint Action Armed Forces.
FM 110–10	(Title classified.)
TM 23–200	(Title classified.)
TM 57–210	Air Movement of Troops and Equipment.

APPENDIX II

LESSONS OF THE PEARL HARBOR ATTACK

1. The Congressional Joint Committee on the investigation of the Pearl Harbor Attack, after its thorough investigation of the attack, reached the conclusion that certain supervisory, administrative, and organizational deficiencies existed in the armed forces of the United States and recommended that serious consideration be given by the Army and Navy to 25 principles which it enunciated in the hope that something constructive might be accomplished that would aid our national defense and preclude a repetition of the failure of 7 December 1941.

2. Acting on this recommendation, the Chief of Staff of the Army approved the simplicity, soundness, and applicability to the conduct of war of the principles referred to in the paragraph above and directed that the 25 principles be studied throughout the Army and that they be explicitly enunciated in appropriate field manuals and other publications.

3. The 25 principles presented by the congressional committee are set forth below. All of these principles are included in existing field manuals either directly or by implication, but since they are not treated as a whole in any Department of the Army publication, they are discussed more fully below.

1. Operational and intelligence work requires centralization of authority and clear-cut allocation of responsibility.—Staff agencies charged with the responsibility and authority for the preparation and issuance of tactical or strategical orders in the name of the commander, and those charged with intelligence operations, including the collection, evaluation, and interpretation of information concerning an actual or possible enemy, and the dissemination of resulting intelligence, *must work as one team.* Only thus can orders and instructions be in consonance with available intelligence and therefore take full advantage of the situation and capabilities of an actual or possible enemy. This requires that those responsible for the preparation of orders and instructions be constantly and fully aware of the situation and capabilities of an actual or possible enemy. Responsibility for initial coordination rests jointly on intelligence and operations staff agencies. When orders or requests are not in consonance with available intelligence because of differences of views as to the implications thereof, those differences must be resolved by the chief of staff if he

is authorized to do so or, if not, then by the commander himself. Final responsibility and authority are vested in the commander.

II. Supervisory officials cannot safely take anything for granted in the alerting of subordinates.—Orders issued to subordinates must be clear and explicit and as brief as is consistent with clarity. The more urgent the situation, the greater the necessity for conciseness. When definite action is required, a definite order should be given. In war nothing can be taken for granted, and no assumptions as to the meaning of messages are warranted without closest supervision to make certain that the intentions of the commander are understood. When it is necessary to place a subordinate in a position in which he must act on his own judgment, the object to be obtained must be made clear and he should be furnished with all crucial information and intelligence accompanied by the best estimate of its signifiance.

III. Any doubt as to whether outposts should be given information should always be resolved in favor of supplying the information.—Unity of effort toward a common objective cannot be obtained if subordinates who may have to act on their own judgment are not told all that it is or may be necessary for them to know. The secrecy of the source of information or intelligence should not be taken as a reason for not making the information or intelligence known to commanders to whom it is vital. While the information or intelligence is given, the security of the source may remain guarded. It is therefore the primary duty of the intelligence officers of all echelons of command to keep their commanders and all others concerned fully informed of the situation and capabilities of an actual or possible enemy. In absence of instructions from their commanders as to what is advisable to make known to subordinate commanders, they should take the view that it is better to err on the side of giving too much information or intelligence rather than too little.

IV. The delegation of authority or issuance of orders entails the duty of inspection to determine that the official mandate is properly exercised.—(See principle V below.) Subordinate commanders must understand not only the orders of their superiors but also the intentions which inspire them. Thus the responsibilities of a commander and his staff do not end with the issue of the necessary orders. They must insure receipt of the orders by the proper subordinates, make certain that they are understood, and enforce their effective execution. It is sound practice to recognize as implicit, in the delegation of authority or the issuance of orders, the responsibility of inspecting and supervising to determine that the delegated authority is properly administered and the orders carried out.

V. The implementation of official orders must be followed with closest supervision.—The principle of the supervision of subordinates is well understood. It should be stressed, however, that when a sub-

ordinate is at such a distance from the commander that personal supervision is not possible, the reports of the subordinate's plans and actions must be carefully checked to make sure that they comply with instructions given. More complete intelligence of the enemy situation and capabilities must be furnished the subordinate than is ordinarily the case. Also liaison officers, who are representatives of the senior commander and who are fully informed of the situation and the intentions of the senior commander, should be employed to insure that the subordinate and the senior commander have mutually complete information and intelligence and a mutual understanding of plans and orders.

When the subordinate is close at hand, personal conferences between the higher commander and the subordinates who are to execute his orders must be held in order that the subordinates may arrive at a correct understanding of the plans and intentions of the superior and may correctly interpret the orders issued. Within the scope of authority delegated to it, the staff must supervise the execution of plans and orders and take the necessary action to carry out the commander's intentions.

VI. The maintenance of alertness to responsibility must be insured through repetition.—Long-range plans or estimates can be vitalized by timely repetition. An energetic followup of instructions must insure that they are effectively executed or are modified at the proper time to fit a change in the situation. Repetition for the purpose of intensifying and insuring alertness is especially appropriate in critical situations extending over a considerable period of time.

VII. Complacency and procrastination are out of place where sudden and decisive action is of the essence.—During strained relations preceding a state of war and in periods of comparative calm in battle it is vital that commanders and staff officers be on the alert to detect indications of any change in intentions of a potential or actual enemy. At such times the significance of information and even the absence of it assumes immediate and great importance. Doubt as to probable enemy intentions should be resolved in favor of positive and aggressive action on his part. Blind acceptance of continuance of the *status quo* may be fatal.

VIII. The coordination and proper evaluation of intelligence in time of stress must be insured by continuity of service and centralization of responsibility in competent officials.—A sound appreciation of the situation and capabilities of an actual or possible enemy requires long and painstaking study based on detailed knowledge gained by training and experience in the coordinated search for information, in its proper evaluation and interpretation, and in the dissemination of the resulting intelligence. This indicates the need of a central, joint or combined, intelligence agency, if appropriate, comprising an

adequate staff of capable and experienced intelligence and counterintelligence personnel of the interested services, to which all information of an actual or possible enemy is sent, and where it can be properly evaluated and interpreted and the resulting intelligence disseminated to all commanders, agencies, or headquarters concerned. Frequently changes in key intelligence and counterintelligence personnel enhance the possibility of unsound intelligence and commanders' estimates, and, more important, may destroy the full confidence of responsible commanders in the intelligence presented to them. It is seldom that commanders have sufficient time to make the detailed studies necessary to arrive at sound conclusions as to enemy capabilities; for this they must rely upon their intelligence staff officers. If, in addition, their intelligence staff agencies are incompetent, or lack a commander's full confidence, the results may well be disastrous. As indicated under principle I above, however, final responsibility for securing the information and intelligence which he must have in a particular situation, and upon which he must base decisions that will enable him to accomplish his mission regardless of what an actual or possible enemy may do, rests upon the commander.

IX. The unapproachable and superior attitude of officials is fatal. There should never be any hesitancy in asking for clarification of instruction or in seeking advice on matters that are in doubt.—A commander should be accessible to his subordinates and should carefully avoid creating the impression that he is unapproachable. He should bear in mind that no man has so firm a grasp of his business or has attained to such complete understanding as to warrant deafness to the opinions of his subordinates. A commander should not be intolerant of a subordinate seeking clarification of his orders; this contact should be encouraged, for the commander who inspires his subordinates to speak out with frankness, who never upbraids them for faulty opinions, who never ridicules them, who encourages their personal confidences, has a hold on them that is difficult to shake. The commander who listens with consideration to the opinion of a subordinate binds that subordinate to him in the most effective manner. It is incumbent on the subordinate commander to seek a clarification of any doubt on his part as to the meaning of the orders he received from the higher commander, regardless of the latter's attitude. A commander should always be careful to treat his subordinates with utmost consideration. He should be quick to recognize merit in his subordinates and should be loyal to them, for no commander can expect loyalty from his subordinates unless he carries conviction of loyalty to them. In leadership there is an inviolable law of reciprocity.

X. There is no substitute for imagination and resourcefulness on the part of supervisory and intelligence officials.—The exercise of command functions requires imagination, foresight, and an intuitive ap-

plication by commanders of the principles of war. Any procedure which limits the imagination or initiative of subordinate commanders should normally be avoided. It is equally important that intelligence and other staff officers be possessed of a high degree of resourcefulness in order that all information available to an organization can be fully developed and exploited to the end that resulting intelligence, in suitable form, can be placed at the disposal of all commanders concerned in order that the utmost effective use of it can be made. The secrecy of certain sources of information must not blind the intelligence agency as to their ability to disseminate intelligence revealed. The source of the information may still be safeguarded, even though the intelligence conveyed is made known to those to whom it is of vital importance.

XI. Communications must be characterized by clarity, forthrightness, and appropriateness.—Every commander must make sure that he understands the wishes and intentions of his superiors. Not only must he understand his orders, but he must be sure that he understands the intention which lies behind the orders. In orders it is essential that there be no opportunity for misunderstanding by any subordinate of the exact intended meaning of all terms used. The use of highly technical or even technical military language when there is danger of misunderstanding is to be avoided. It is essential that orders be clear and explicit.

XII. There is great danger in careless paraphrase of information received and every effort should be made to insure that the paraphased material reflects the true meaning and significance of the original.—The practice of paraphrasing coded intelligence messages is a proper procedure in order to preserve the secrecy of codes, but in performing this difficult task it is very essential that while protecting the code, the meaning of the message must not be lost or distorted from its true meaning. Carelessness in paraphrasing messages inevitably leads to misunderstanding of the message and may lead to a completely false idea of the actual meaning of the text. In paraphrasing, the guiding principle must be to reproduce the true meaning of the message even though to do so may compromise the code.

XIII. Procedures must be sufficiently flexible to meet the exigencies of unusual situations.—Inflexible procedures which cannot be subjected to sufficient alteration to satisfy the exigencies of a given situation generally lead to failure. Proceeding through channels is normal and should be followed, but not to the extent that a grooved pattern is followed regardless of the demand for distinctive action. *Flexibility should characterize all military organization and operations. The attempt to follow set rules where the situation demands otherwise may prove fatal.* Military decisions are founded on reason

and judgment which are the result of the comparison of well weighted ideas and not on a set of fixed methods.

XIV. Restriction of highly confidential information to a minimum number of officials, while often necessary, should not be carried to the point of prejudicing the work of the organization.—(See principles III and XII above.) The basic premise upon which all intelligence work is founded is that it is the duty of every individual and headquarters to transmit promptly all items of enemy information to higher, lower, and parallel echelons to whom it is of value. The promiscuous distribution of highly secret material is dangerous, nevertheless it must be made available to all those whose responsibility cannot competently and intelligently be discharged without the knowledge of its content. By skillful paraphrase the information contained in a highly secret document may be made known and still protect the secrecy of its source. This is particularly important so far as it concerns dissemination of intelligence concerning enemy capabilities. Wide distribution of such information or intelligence does not compromise the success of a commander's own action. Military information is of no value unless it reaches those who have need of it in such form and in time to serve their purposes.

XV. There is great danger of being blinded by the self-evident.—The aim of any military commander is to deceive his enemy as to his intentions. As a rule the deception is carried out by a course of action calculated to fix in the mind of the enemy certain false assumptions in order that the blow the commander delivers will be insured of surprise. The self-evident must never be accepted without great caution, and a commander must never forget that, regardless of hostile appearances, he is at all times responsible for the protection of his command from surprise in any direction from which attack is possible by land, sea, or air.

XVI. Officials should at all times give subordinates the benefit of significant information.—Few matters call for more judgment in war than to know how much information it is advantageous to make known to subordinate commanders and how much to conceal. As a general rule officers of all grades must keep in mind that unity of effort toward a common end cannot be obtained if subordinates who may have to act on their own judgment are not told in time all that it is necessary for them to know. The success of operations must not be jeopardized by secrecy precautions.

XVII. An official who neglects to familiarize himself in detail with his organization should forfeit his responsibility.—One of the qualities essential to the successful exercise of command is professional knowledge and training. These qualities are of little value unless the commander applies them to the improvement of conditions within his command. This requires that he know what is and what is not being

done by his subordinate commanders. As the size of the command increases, the problem of personal contact between the commander and his troops becomes increasingly difficult, but loses none of its importance. It is as vital to the general officer who exercises high command as it is to the platoon commander who leads his platoon in battle to know what is going on in his organization. The successful commander must be a professionally qualified leader; command and leadership are inseparable.

Where more than one service is involved in the defense of an outpost, it is important that each commander know the plans and operations of the other in order that the defense may be efficiently coordinated. Assumption without verification on the part of one that the others are acting correctly may prove false.

XVIII. Failure can be avoided in the long run only by preparation for any eventuality.—(See principle XV above.) The basic doctrine that the commander alone is responsible for all his unit does or fails to do emphasizes the fact that a command must always be prepared for any event, however unlikely, within the physical capabilities of an actual or possible enemy. What an enemy is most likely to do must not lead the commander to neglect to consider all lines of action within the hostile capabilities. In order for a commander to guard against surprise, his estimate of enemy capabilities must be accurate and complete, his security measures must be adequate, his reconnaissance must be effective, and he must require that all subordinate units be ready for action at all times.

XIX. Officials, on a personal basis, should never countermand an official instruction.—Clear and decisive orders are the logical result of definite and sure decisions. Generally they are preceded by long and detailed study by the commander and all staff sections of the headquarters and are transmitted to the subordinate commanders through the normal chain of command. Any bypassing of the channels of command by personal conversation or letters should be resorted to only in the most urgent situations. When it is done, however, the staff should be informed immediately of all actions taken or orders given; else staff confusion, misinterpretation, and misunderstanding of current orders will result.

XX. Personal and official jealousy will wreck any organization.—(See principle IX above.) Jealous adherence to prerogatives and unwillingness on the part of commanders to make concessions in the interest of common welfare, especially when the forces involved have a similar mission, leads to a failure of either to accomplish its task. Selfishness should never dictate the actions of a commander or staff officer.

XXI. Personal friendship, without more, should never be accepted in lieu of liaison or confused therewith where the latter is

necessary to the proper functioning of two or more agencies.—Personal friendship and contacts on a social basis, as fine as they are, cannot be used as a substitute for command liaison. The heavy responsibility of a commander makes it mandatory that official matters be dealt with on official terms in such a manner as to insure that all concerned have the same knowledge of the situation and that all effort in the accomplishment of the task at hand is integrated and coordinated.

XXII. No consideration should be permitted as excuse for failure to perform a fundamental task.—Regardless of the various supervisory or administrative responsibilities that devolve upon a commander by virtue of his position, his fundamental responsibility is to carry out his mission. No excuse or explanation can justify or even temper his failure to discharge that responsibility.

The exercise of command produces individual or collective military action on the part of subordinates regardless of the latter's will. The commander of an organization is thus the controlling head. He is responsible for everything his command does or fails to do. The introduction of a staff group into the organization in no way alters this basic principle of command and responsibility. The staff members are assistants to the commander, performing in his name such details pertaining to his functions of command as may be delegated to them, but the commander retains full responsibility as though the staff had not been provided. A commander who attempts to shift responsibility to his subordinates is not worthy of command.

XXIII. Superiors must at all times keep their subordinates adequately informed and, conversely, subordinates should keep their superiors informed.—The commander is responsible for seeing that his staff and other subordinate agencies are informed of his activities as commander. Through his chief of staff he should make sure that information and operations of the staff are coordinated and that there is a smooth, uninterrupted flow of information and intelligence from higher to subordinate and from subordinate to higher headquarters. When it is vital and urgent that certain information reach either a lower or higher headquarters, it should be forwarded by the most rapid means available regardless of the set practices of military channels.

XXIV. The administrative organization of any establishment must be designed to locate failures and to assess responsibility.—A commander, through his chief of staff, must have a standard procedure for the processing and handling of staff papers. It must be simple and must insure that a record is kept of all persons who have access to the papers. Only in this way can the commander determine definitely where to assess responsibility for inaction or failure to comply with instructions. This applies particularly to the handling of

highly secret matters, since there is a natural tendency to overstress the secret grading of such papers.

XXV. In a well-balanced organization there is close correlation of responsibility and authority.—There must always be a close correlation between responsibility and authority, for to vest a commander or staff officer with responsibility and no corresponding authority is eminently unfair. A commander must make clear to his subordinates their authority to make command decisions in an emergency during his absence. Succession in command is clearly defined in AR 600–20 and Article 140, Uniform Code of Military Justice. It is of particular importance, in view of atomic and other scientific developments, that it be clearly defined through several levels.

In cases where the orders of a commander specify tasks only, they by implication convey all necessary methods and means to perform these tasks. To the extent that methods and means are prescribed by a higher commander, responsibility devolves upon him for their correctness. Staff officers as such do not exercise command, but assist the commander to the extent he may require. If a staff officer, by virtue of delegated authority, issues an order in the name of the commander, responsibility remains with the commander even though he may not know of the order.

AG 353 (20 Sep 54)

BY ORDER OF THE SECRETARY OF THE ARMY:

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