PART THREE

Defensive Operations

Chapter 8

Basics of Defensive Operations

So the defensive form of war is not a simple shield, but a shield made up of well-directed blows.

Carl von Clausewitz, *On War*, 1832

Defensive operations defeat an enemy attack, buy time, economize forces, or develop conditions favorable for offensive operations. Defensive operations alone normally cannot achieve a decision. Their purpose is to create conditions for a counteroffensive that allows Army forces to regain the initiative (FM 3-0). Other reasons for conducting defensive operations include—

- ??Retaining decisive terrain or denying a vital area to the enemy.
- ??Attritting or fixing the enemy as a prelude to offensive operations.

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- Surprise action by the enemy.
- Increasing the enemy's vulnerability by forcing him to concentrate his forces.

8-1. While the offense is the most decisive type of combat operation, the defense is the stronger type. The inherent strengths of the defense include the defender's ability to occupy his positions before the attack and use the available time to prepare his defenses. Preparations end only when the defender retrogrades or begins to fight. The defender can study the ground and select defensive positions that mass the effects of his fires on likely approaches. He combines natural and manmade obstacles to canalize the attacking force into his engagement areas (EAs). He can coordinate and rehearse his defensive plan while gaining intimate familiarity with the terrain. The defender does not wait passively to be attacked. He aggressively seeks ways of attriting and weakening attacking enemy forces before the initiation of close combat. He maneuvers to place the enemy in a position of disadvantage and attacks him at every opportunity, using his direct and indirect fires. The fires include the effects of offensive information operations and joint assets, such as close air support. The static and mobile elements of his defense combine to deprive the enemy of the initiative. He contains the enemy while seeking every opportunity to transition to the offense.

HISTORICAL EXAMPLE

8-2. The following historical example illustrates how conducting a defense can attrit and fix an enemy as a prelude to offensive actions.

The Battle of Kursk, July 1943

Using an area defense, the Red Army defeated the German Army's last Eastern Front operational-level attack at Kursk. The Red Army maximized its defensive advantage using mass, security, objective, and offensive as principles of war.

Soviet intelligence discovered the German offensive objective and concept: a double envelopment of the Kursk salient by panzer-heavy forces. The Red Army massed forces in the most threatened areas. The Soviets reinforced the two fronts defending the salient, prepared defenses, and established a strategic reserve behind the salient. They weighted the forward defenses on the northern and southern shoulders within the salient. They developed their defenses in depth, carefully tying them to the terrain and organizing infantry positions for all-around defense. Above all, they organized an antitank defense, with mutually supporting positions and mobile counterattack forces at all levels. Nearly 6,000 antitank (AT) guns and 3,300 tanks packed the defense.

The German attack in the northern part of the salient would fall on the 13th Army. The 13th Army consisted of 12 rifle divisions (RDs) organized into four rifle corps (RCs) supported by 700 guns, separate tank brigades, assault gun regiments, and antitank regiments. Within 30 kilometers of the front, the 13th Army established three fortification belts. Within each belt there were large numbers of mutually supporting antitank positions. Each position consisted of four to six AT guns, with protection provided by infantry, machine guns, and obstacles.

The 29th RC occupied the 13th Army's main defensive position in a sector 19 kilometers wide and 15 kilometers deep, with the 15th RC on its right, the 70th Army on its left, and the 17th Guards Rifle Corps (GRC) rearward in the army second echelon. At the start of the battle, the 29th RC consisted of three rifle divisions (the 15th, 81st, and 307th), with supporting tank and artillery units. It deployed the 15th RD and 81st RD, with 12 to 15 antitank positions each, as the corps' first echelon. The 307th RD was the corps' second echelon. Both first-echelon divisions also deployed in two echelons. Each division established a battalion security force to its front.

During a week of intense defensive combat, the 29th RC conducted an area defense, making the Germans pay so dearly for every gain that they reached their

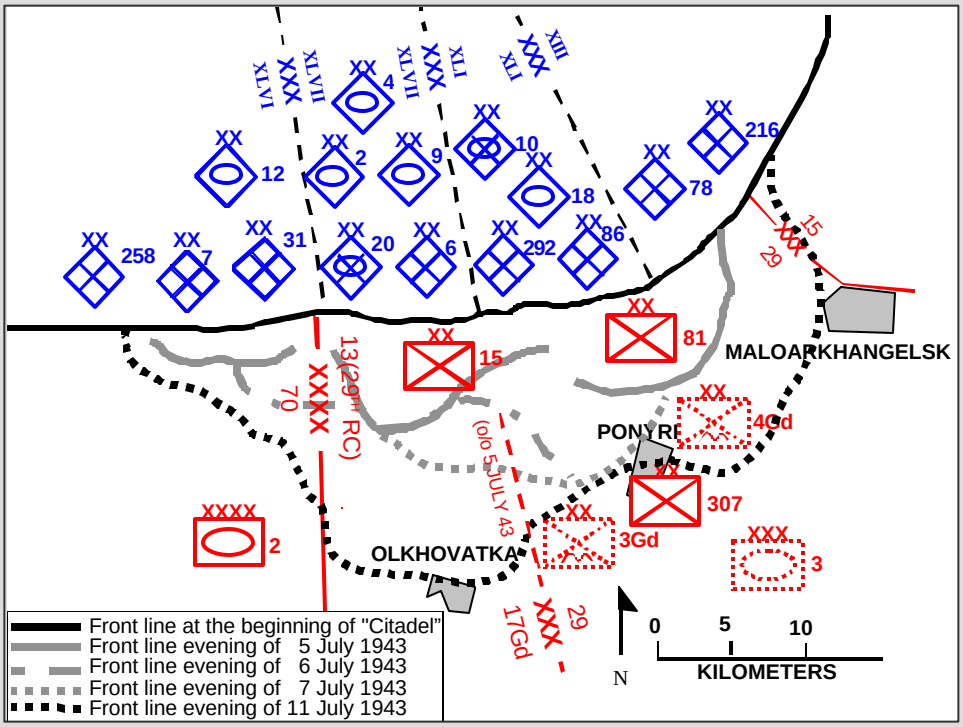

Figure 8-1. Movements of an Area Defense

culminating point short of Kursk. See Figure 8-1. Tested by nine German divisions, the 29th RC was able to keep German forces from breaking through its area of operations (AO), despite having its initial three divisions rendered combat-ineffective. In the course of the defense, the 29th RC inflicted 10,700 German casualties and destroyed an estimated 220 tanks and 71 guns. Key to the defense was the construction of those mutually supporting antitank positions, organized for all-around defense, with extensive engineer works to enhance the terrain. The 29th RC employed its attached forces aggressively, creating combined arms teams to hold terrain or maneuver against German forces within the defensive belt. It employed counterattacks to retake key terrain or gain time to develop defenses.

TYPES OF DEFENSIVE OPERATIONS

8-3. There are three basic types of defensive operations: the area defense, the mobile defense, and the retrograde. These three types have significantly different concepts and pose significantly different problems. Therefore, each type of defensive operations must be dealt with differently when planning and executing the defense. Although the names of these types of defensive operations convey the overall aim of a selected defensive operation, each typically contains elements of the other and combines static and mobile elements.

8-4. Although on the defense, the commander remains alert for opportunities to attack the enemy whenever resources permit. Within a defensive posture, the defending commander may conduct a spoiling attack or a counterattack, if permitted to do so by the factors of METT-TC. (Chapter 5 discusses these two forms of attack.)

AREA DEFENSE

8-5. The *area defense* a type of defensive operation that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright (FM 3-0). The focus of the area defense is on retaining terrain where the bulk of the defending force positions itself in mutually supporting, prepared positions. Units maintain their positions and control the terrain between these positions. The decisive operation focuses on fires into EAs possibly supplemented by a counterattack. The reserve may or may not take part in the decisive operation. The commander can use his reserve to reinforce fires; add depth, block, or restore the position by counterattack; seize the initiative; and destroy enemy forces. Units at all echelons can conduct an area defense. (Chapter 9 discusses the area defense.)

MOBILE DEFENSE

8-6. The *mobile defense* is a type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force (FM 3-0). The mobile defense focuses on defeating or destroying the enemy by allowing him to advance to a point where he is exposed to a decisive counterattack by the striking force. The decisive operation is a counterattack conducted by the striking force. The striking force is a dedicated counterattack force constituting the bulk of available combat power. A fixing force supplements the striking force. The commander uses his fixing force to hold attacking enemy forces in position, to help channel attacking enemy forces into ambush areas, and to retain areas from which to launch the striking force.

8-7. A mobile defense requires an AO of considerable depth. The commander must be able to shape the battlefield, causing the enemy to overextend his lines of communication (LOCs), expose his flanks, and dissipate his combat power. Likewise, the commander must be able to move around and behind the enemy force he intends to cut off and destroy. Divisions and larger formations normally execute mobile defenses. However, subordinate echelons may participate as part of the fixing force or the striking force. (Chapter 10 discusses the mobile defense.)

RETROGRADE

8-8. The *retrograde* is a type of defensive operation that involves organized movement away from the enemy (FM 3-0). The enemy may force these opera-

tions, or a commander may execute them voluntarily. The higher commander of the force executing the retrograde must approve the retrograde operation before its initiation in either case. The retrograde is a transitional operation; it is not conducted in isolation. It is part of a larger scheme of maneuver designed to regain the initiative and defeat the enemy. (Chapter 11 further discusses the retrograde.)

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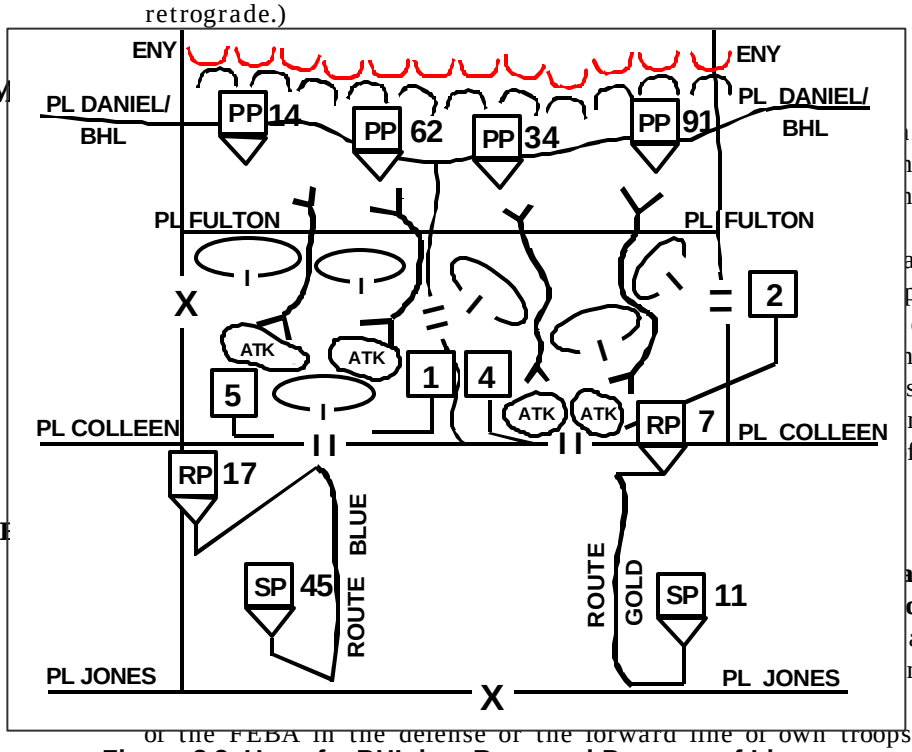

Figure 8-2. Use of a BHL in a Rearward Passage of Lines

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BATTLE

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of the FEBA in the defense or the forward line of own troops (FLOT) in the offense. The commander draws it where elements of the passing unit can be effectively supported by the direct fires of the forward combat elements of the stationary unit until passage of lines is complete. The area between the BHL and the stationary force belongs to the stationary force commander. He may employ security forces, obstacles, and fires in the area. (Figure 8-2, page 8-6, depicts a BHL used in conjunction with other control measures for a rearward passage of lines.)

MAIN BATTLE AREA

8-11. **The *main battle area* (MBA) is the area where the commander intends to deploy the bulk of his combat power and conduct his decisive operations to defeat an attacking enemy**. In the defense, the commander's major advantage is that he normally selects the ground on which the battle takes place. He positions his forces in mutually supporting positions in depth to absorb enemy penetrations or canalize them into prepared EAs, defeating the enemy's attack by concentrating the effects of overwhelming combat power. The natural defensive strength of the position has a direct bearing on the distribution of forces in relation to both frontage and depth. In addition, defending units typically employ field fortifications and obstacles to improve the terrain's natural defensive strength. The MBA also includes the area where the defending force creates an opportunity to deliver a decisive counterattack to defeat or destroy the enemy.

8-12. The MBA extends from the FEBA to the unit's rear boundary. The commander locates his subordinate unit boundaries along identifiable terrain features and extends them out beyond the FLOT by establishing forward boundaries. Unit boundaries should not split avenues of approach or key terrain. The commander selects the MBA based on the products of the intelligence preparation of the battlefield (IPB) process and his own analysis using the factors of METT-TC. The IPB process indicates how the enemy will most likely

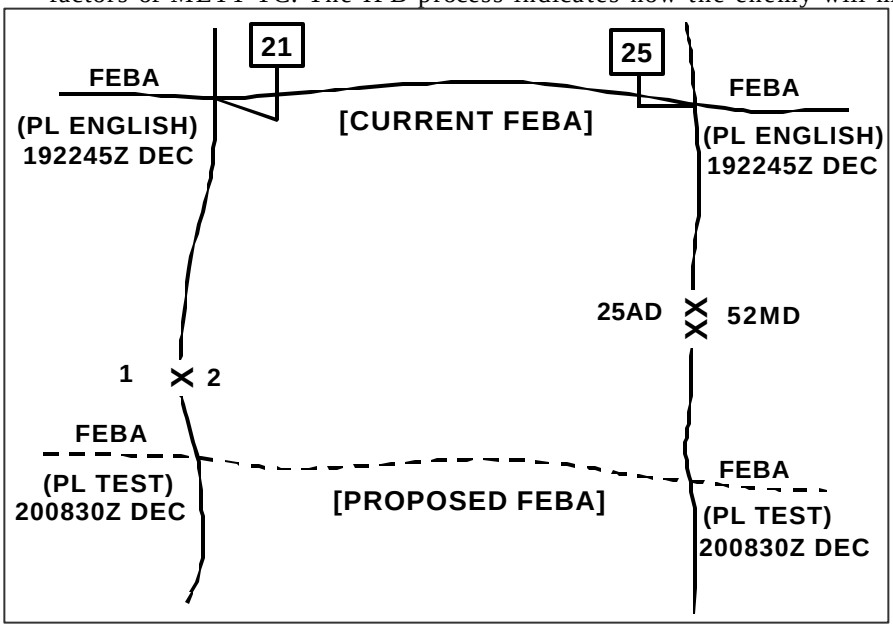

Figure 8-3. Forward Edge of the Battle Area

use the available avenues of approach.

FORWARD EDGE OF THE BATTLE AREA

8-13. The *forward edge of the battle area* (FEBA) is the foremost limits of a series of areas in which ground combat units are deployed, excluding the areas in which the covering or screening forces are operating, designated to coordinate fire support, the positioning of forces, or the maneuver of units (JP 1-02). The US Army uses a FEBA only in defensive operations. The FEBA is not a boundary, but conveys the commander's intent. It marks the foremost limits of the areas in which the preponderance of ground combat units deploy, excluding the areas in which security forces are operating. MBA forces can temporarily move forward of the FEBA to expedite the retrograde operations of security forces. The commander designates a FEBA to coordinate fire support and to maneuver his forces. A phase line designating the forward-most point of the MBA indicates the FEBA. The FEBA shows the senior commander's planned limit for the effects of direct fires by defending forces. Defending units must address this area in their scheme of maneuver and exchange information regarding tactical plans at the coordinating points. (Figure 8-3 graphically depicts the current FEBA and a proposed FEBA.)

BATTLE POSITIONS

8-14. **A *battle position* is a defensive location oriented on a likely enemy avenue of approach.** The battle position is an intent graphic that depicts the location and general orientation of the majority of the defending forces. A commander's use of a battle position does not direct the position of the subordinate's entire force within its bounds since it is not an AO. (See Figure 8-4, page 8-8.) Units as large as battalion task forces and as small as squads or sections use battle positions. They may occupy the topographical crest of a hill, a forward slope, a reverse slope, or a combination of these areas. The commander selects his positions based on terrain, enemy capabilities, and friendly capabilities. A commander can assign all or some of his subordinates battle positions within his AO. (See Figure 8-5, page 8-8.)

8-15. The commander may assign his subordinates battle positions in situations when he needs to retain a greater degree of control over the maneuver of his subordinate units than what he has with only an AO, as he controls maneuver outside the general location of the battle position. He may assign multiple battle positions to a single unit, which allows that unit to maneuver between battle positions. The commander specifies mission and engagement criteria to the unit assigned to a battle position. Security, combat support (CS), and combat service support (CSS) forces may operate outside a unit's battle position.

8-16. Battle positions are not normally held at all costs. The commander assigning a unit to a battle position should specify when and under what conditions the unit displaces from the position. If a unit is ordered to defend a battle position, its commander has the option of moving off the battle position. If that unit is directed to retain a battle position, its commander needs to know the specific conditions that must exist before his unit can displace.

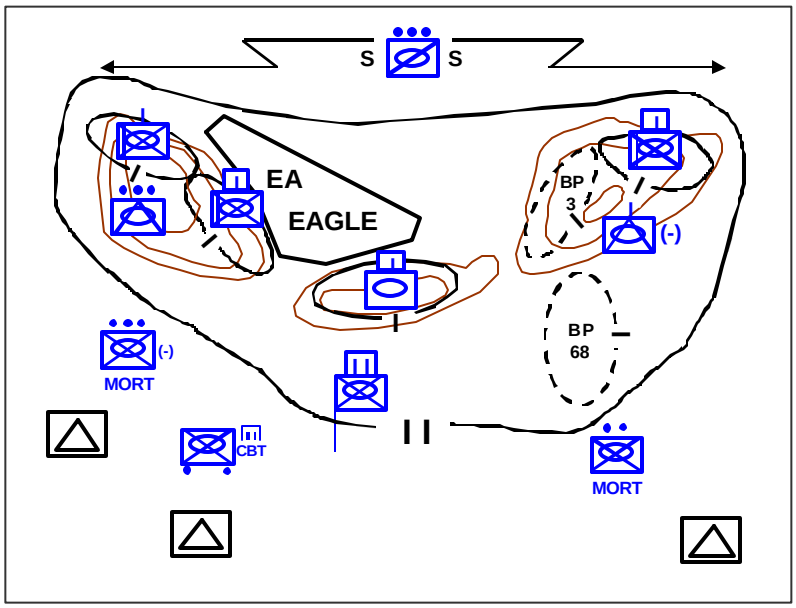

Figure 8-4. Task Force Battle Position

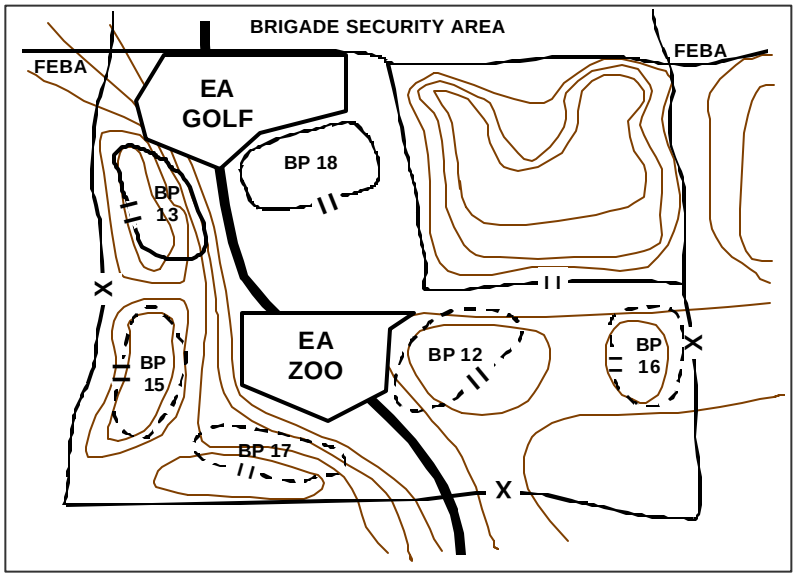

Figure 8-5. AO and Battle Position Control Measures Used in Combination

8-17. There are five kinds of battle positions—primary, alternate, supplementary, subsequent, and strong point. (See Figure 8-6.) When assigning battle positions, the commander always designates the primary battle position. He

designates and prepares alternate, supplementary, and subsequent positions as time and other resources permit and if the situation, especially terrain, requires them.

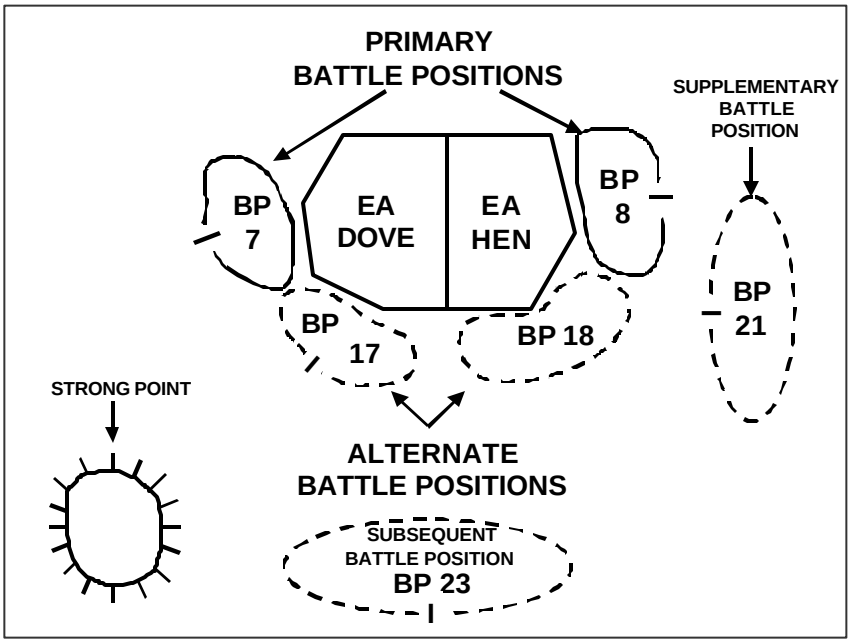

Figure 8-6. Five Kinds of Battle Positions

8-18. **The *primary position* is the position that covers the enemy's most likely avenue of approach into the AO.** It is the best position from which to accomplish the assigned mission, such as cover an EA.

8-19. **An *alternate position* is a defensive position that the commander assigns to a unit or weapon for occupation when the primary position becomes untenable or unsuitable for carrying out the assigned task.** It covers the same area as the primary position. He locates alternate positions so the occupant can continue to fulfill his original task, such as covering the same avenue of approach (AA) or EA as the primary position. These positions increase the defender's survivability by allowing him to engage the enemy from multiple positions. For example, a unit moves to its alternate positions when the enemy brings suppressive fires on the primary position.

8-20. **A *supplementary position* is a defensive position located within a unit's assigned AO that provides the best sectors of fire and defensive terrain along an avenue of approach that is not the primary avenue where the enemy is expected to attack.** For example, an AA into a unit's AO from one of its flanks normally requires establishing supplementary positions to allow a unit or weapon system to engage enemy forces traveling along that avenue.

8-21. **A *subsequent position* is a position that a unit expects to move to during the course of battle.** A defending unit may have a series of subsequent positions. Subsequent positions can also have primary, alternate, and supplementary positions associated with them.

8-22. **A *strong point* is a heavily fortified battle position tied to a natural or reinforcing obstacle to create an anchor for the defense or to deny the enemy decisive or key terrain.** The commander prepares a strong point for all-around defense. (See Figure 8-7.) He positions strong points on key or decisive terrain as necessary. The unit occupying the strong point prepares positions for its weapon systems, vehicles, soldiers, and supplies. The commander also establishes a strong point when he anticipates that enemy actions will isolate a defending force retaining terrain critical to the defense.

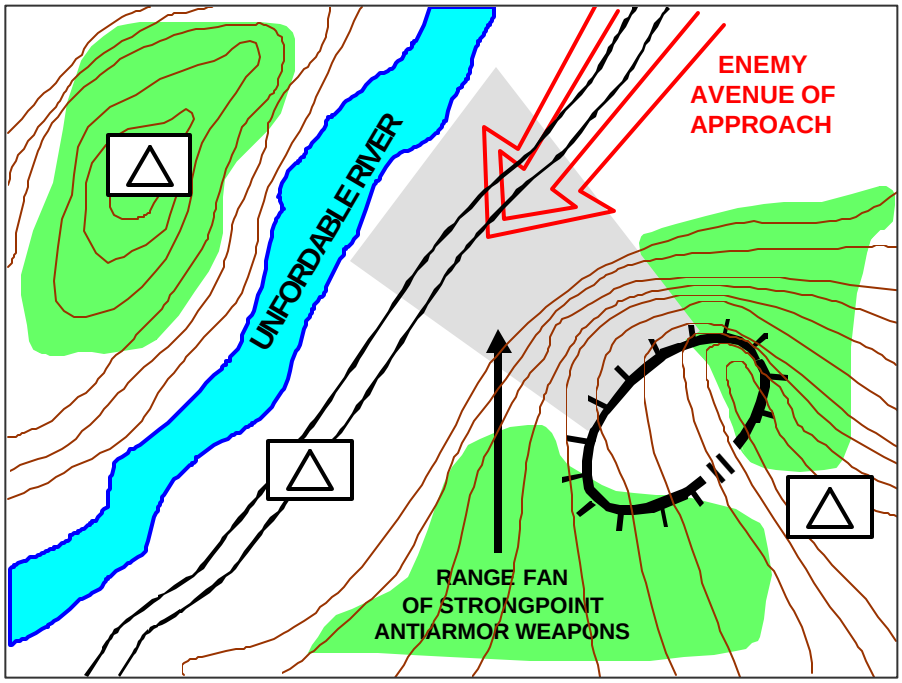

Figure 8-7. Strong Point Defense

8-23. Before assigning a strong point mission, the commander must ensure that the strong point force has sufficient time and resources to construct the position, which requires significant engineer support. A minimally effective strong point typically requires a one-day effort from an engineer unit the same size as the unit defending the strong point. Normally, companies and battalions occupy strong points, although brigades may construct them. The commander does not normally establish strong points for units smaller than company size. This is because a platoon or squad cannot secure a perimeter large enough to encompass all required assets and supplies.

FIRE SUPPORT COORDINATING MEASURES

8-24. The commander tries to engage the enemy at extended ranges and attrit him as his attack advances. To control indirect fires in the defense, the commander uses those common FSCM introduced in Chapter 2. He can also employ final protective fires.

8-25. *Final protective fires* (FPFs) are immediately available preplanned barriers of fires designed to impede enemy movement across defensive lines or areas (JP 3-09). Both direct- and indirect- fire weapons can provide FPFs. The commander can only assign each firing battery or platoon a single FPF. A FPF is a priority target for an element or system, and those fire units are laid on that target when they are not engaged in other fire missions. When the enemy initiates his final assault into a defensive position, the defending unit initiates its FPFs to kill enemy infantry soldiers and suppress his armored vehicles. Selected crew-served weapons fire along predesignated final protective lines (FPLs) to break up infantry assaults. (Figure 8-8 depicts a FPF.)

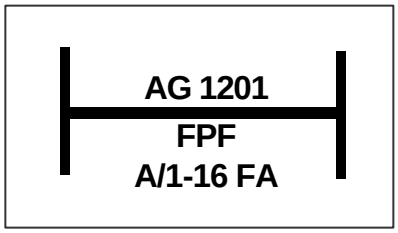

Figure 8-8. Final Protective Fire

DIRECT FIRE CONTROL MEASURES

8-26. The commander engages the enemy force with all available defensive fires when they enter the defending unit's EA. Chapter 2 defines these direct fire control measures, such as target reference points and EAs. (See Figure 8-9.)

DISENGAGEMENT LINE

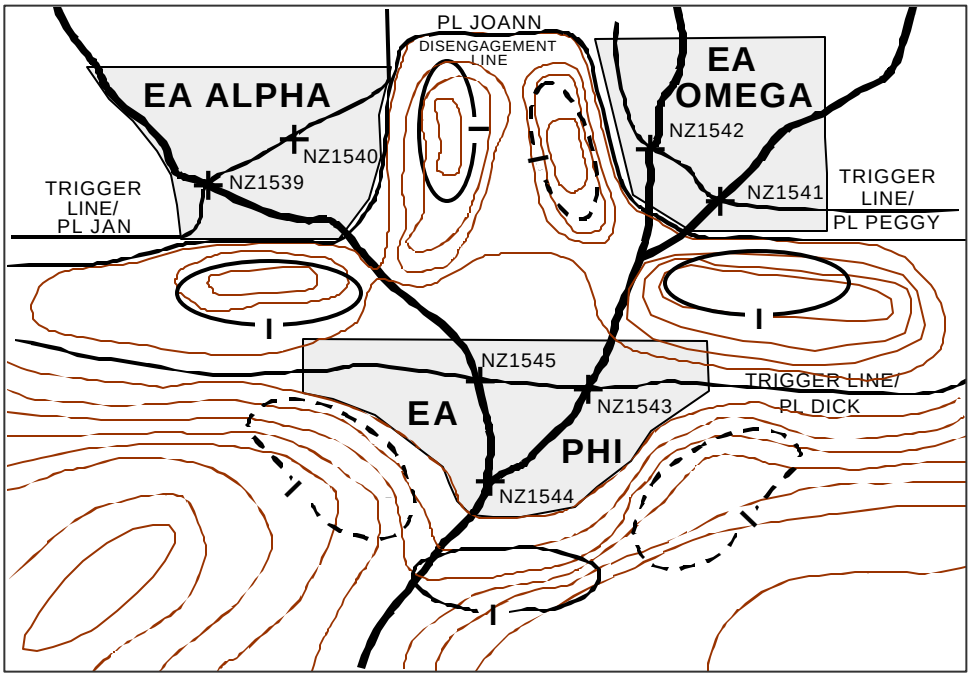

Figure 8-9. Direct Fire Control Measures

8-27. **A *disengagement line* is a phase line located on identifiable terrain that, when crossed by the enemy, signals to defending elements that it is time to displace to their next positions.** Phase Line JOANN is a disengagement line in Figure 8-9. The commander uses these lines in the delay and the defense when he does not intend for the defending unit to become decisively engaged. He establishes criteria for the disengagement, such as

number of enemy vehicles by type, friendly losses, or enemy movement to flanking locations. Multiple disengagement lines, one for each system in the defense, may exist.

COMMON DEFENSIVE PLANNING CONSIDERATIONS

8-28. At the onset of the attack, the defending commander yields the initiative to the enemy. However, he exploits prepared, mutually supporting positions organized for all-around defense and uses his knowledge of the terrain to slow the enemy's momentum. The defending force maintains its security and disrupts the enemy's attack at every opportunity. The defending commander hinders enemy offensive preparations by using long-range fires and deep maneuver to reduce the force of the enemy's initial blows and start the process of wresting the initiative from the enemy. He draws the enemy into EAs where he can initiate combat on his own terms. The commander surprises the enemy as concentrated and integrated fires violently erupt from concealed and protected positions. He then counterattacks the enemy, repeatedly imposing unexpected blows. The widespread application of highly accurate and lethal weapons, high degree of tactical mobility, dynamic situational changes, and extended spatial scope of unit AOs all characterize contemporary combined arms warfare. The commander exploits small tactical success and opportunities to build momentum rapidly. The commander first able to see the battlefield, understand the common operational picture's implications, and take effective action will defeat his opponent's combined arms team, shatter his cohesion, degrade his strength and ability to concentrate, and destroy his exposed forces.

8-29. The defending force does not have to kill every enemy soldier, squad, or combat system to be successful. It only has to destroy the enemy's ability to synchronize his combined arms team or his will to fight. Those events signal a transition period that affords the defending commander the opportunity to seize the initiative and return to the offense.

8-30. A defense is more effective when there is adequate time to thoroughly plan and prepare defensive positions. Lack of preparation time may cause the commander to maintain a larger-than-normal reserve force or accept greater risks than usual. All units must be capable of mounting a defense with minimal preparation, but a strong defense takes time to organize and prepare. If the enemy attack does not take place at the predicted time, the commander should use the additional time to improve his unit's defensive positions. He can increase the effectiveness of the security area, establish additional alternate and supplementary positions, refine the defensive plan to include branches and sequels, conduct defensive rehearsals, and maintain vehicles and personnel. To gain time to organize a defense, the commander may order his security force to conduct a delay while the main body disengages and moves to more advantageous positions. The security force must know how long it needs to delay the enemy for the main body to prepare its defense and be task organized to conduct a delay. (Chapter 11 discusses the delay.)

8-31. The common defensive planning considerations addressed in the following paragraphs apply to all types of defensive operations. In the defense, synchronizing the effects of his combat and supporting systems allows a commander to apply overwhelming combat power against selected advancing enemy

forces to unhinge the enemy commander's plan and destroy his combined arms team. Defensive synchronization is normally the result of detailed planning and preparation among the various units participating in an operation. While these activities may be separated in time and space, they are synchronized if their combined consequences are felt at decisive times and places. All defensive operations are a mix of static and dynamic actions. As an operation evolves, the commander knows that he will probably be required to shift his decisive and shaping operations to press the fight and keep the enemy off balance. Synchronized prior planning and preparation bolster the commander's combat power, increasing the effectiveness of the defense. The commander must remain cognizant of the possibility of dislocated civilians attempting to move through his positions in an effort to escape approaching enemy forces throughout the defense.

INTELLIGENCE

8-32. During the planning process, the commander uses intelligence products to identify probable enemy objectives and various approaches. He studies patterns of enemy operations and the enemy's vulnerability to counterattack, interdiction, electronic warfare, air attacks, and canalization by obstacles. The commander must also examine the enemy's capability to conduct air attacks against his force, insert forces behind friendly units, and employ nuclear, biological, and chemical weapons. He must determine how soon follow-on forces can join the fight against an enemy attacking in echelons.

8-33. The commander uses his intelligence, surveillance, and reconnaissance (ISR), and engineer assets to study the terrain. By studying the terrain, the commander tries to determine the principal enemy and friendly heavy, light, and air avenues of approach. He wants to determine the most advantageous area for the enemy's main attack, as well as other factors of observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment (OAKOC). (See FM 6-0 for a detailed discussion of OAKOC.)

8-34. The commander approves an integrated ISR plan that provides early identification of as many of the following requirements as possible:

- Locations, composition, equipment, strengths, and weaknesses of the advancing enemy force.
- Enemy reconnaissance objectives or goals.
- Locations of possible enemy assembly areas.
- Location of enemy indirect fire weapon systems and units.
- Location of gaps, assailable flanks, and other enemy weaknesses.
- Location of areas for enemy helicopter and parachute assaults.
- Location of artillery and air defense gun and missile units.
- Location of enemy electronic warfare units.
- Location, numbers, and intentions of civilian populations.
- Effects of weather and terrain on current and projected operations.
- Likely withdrawal routes for enemy forces.
- Numbers, routes, and direction of movement of dislocated civilians.
- Anticipated timetable for the enemy's most likely COA.

?? Locations of enemy command posts, fire direction control centers, electronic warfare sites, and target acquisition sensor and target fusion sites and the frequencies they are using.

It is unlikely that the commander has complete knowledge of the enemy's intentions; therefore, he must plan to continue his intelligence efforts during the battle. (FM 2-0 provides an overview of the intelligence process and the capabilities of technical surveillance systems. FM 3-55 discusses reconnaissance assets available at each echelon. FMs 3-11.9 and 3-34.170 discuss the specialized tasks associated with NBC and engineer reconnaissance.)

8-35. The commander's ability to see the enemy is critical to the conduct of all defensive operations. Defensive plans must address the sustainment, replacement, and reconstitution of ISR assets throughout the preparation and execution of the defense.

MANEUVER

8-36. The commander's intent is to defeat the enemy force's attack by overwhelming it with repeated, unexpected blows before it conducts its final assault on friendly defensive positions. As the enemy attack fails, the enemy must attempt to withdraw or transition to a defense in the face of friendly counterattacks. If the enemy succeeds in overrunning a key defensive position, the defending force counterattacks to overwhelm the enemy before he can either organize that position for defense or exploit his success.

Exploit the Advantages of Terrain

8-37. The defending commander exploits the defending force's advantages of occupying the terrain where the fight will occur. The defending force engages the attacker from locations that give the defending force an advantage over the attacking enemy. These locations include defiles, rivers, thick woods, swamps, cliffs, canals, built-up areas, and reverse slopes. Defensive positions in the MBA should make use of existing and reinforcing obstacles. The commander may choose to shape the battlefield by defending one area to deny terrain to the enemy while delaying in another area to deceive the enemy commander into believing he has achieved success.

8-38. The defending commander plans how to use key terrain to impede the enemy's movement. He seeks out terrain that allows him to mass the effects of his fires but forces the enemy to commit his force piecemeal into friendly EAs. This exposes portions of the enemy force for destruction without giving up the advantages of fighting from protected positions. Examples of key terrain include terrain that permits the defending force to cover a major obstacle system by fire, and important road junctions and choke points that impact troop movements, such as the movement of reserves and LOCs.

8-39. The commander determines the probable force ratios he will face and arrays his forces accordingly. The terrain impacts how fast the enemy can close on his positions and how much time is available to employ combat multipliers, such as indirect fires. Once the commander arrives at acceptable force ratios—or the degree of risk he must take is clear—he allocates his available forces and begins planning his EAs.

8-40. On each enemy AA, the commander determines where he wants to destroy the enemy. He arrays forces allocated to that AA around this point to establish an EA. He uses obstacles and fires to canalize enemy forces into this EA. The commander takes actions to increase the kill probabilities of his various weapon systems at different ranges. This includes establishing range markers for direct fire weapons, confirming the zero on his weapons, or clearing obstacles that might snag the cables over which the commands of his wire-guided munitions, like the TOW missile, travel.

8-41. Generally, defending forces have the advantage of preparing the terrain by reinforcing natural obstacles, fortifying positions, and rehearsing operations. First, they prepare the ground to force the piecemeal commitment of enemy forces and their subsequent defeat in detail. Second, they prepare the ground to force the enemy to fight where he does not want to fight, such as in open areas dominated by terrain that offers adequate cover and concealment for the occupying friendly forces. The defending force tries to guide or entice the enemy into prepared EAs. Units employ and continuously strengthen obstacles and fortifications to improve the natural defensive strength of the position, which has a direct bearing on the distribution of forces, frontages, and depth of the defense.

8-42. Terrain features that favor defensive operations include—

- ?? A series of parallel ridges across the line of hostile advance.
- ?? Unfordable streams, swamps, lakes, and other obstacles on the front and flanks.
- ?? High ground with good observation and long-range fields of fire.
- ?? Concealed movement routes immediately behind defensive positions.
- ?? Limited road network in front of the line of contact to confine the enemy to predictable avenues of approach.
- ?? Good road network behind the line of contact that allows the commander to reposition his forces as the battle progresses.

The opposite of the terrain conditions listed above degrades a force's ability to conduct defensive operations. For example, terrain with a limited road net that canalizes the defending force allows the enemy to predict its movement and take steps to interdict that movement.

Maintain Security

8-43. Security operations seek to confuse the enemy about the location of the commander's main battle positions, prevent enemy observation of preparations and positions, and keep the enemy from delivering observed fire on the positions. They also try to force the attacking enemy to deploy prematurely. They can offset the attacker's inherent advantage of initiative regarding the time, place, plan, direction, strength, and composition of his attack by forcing him to attack blind into prepared defenses. The commander must not permit enemy reconnaissance and surveillance assets to determine the precise location and strength of defensive positions, obstacles, EAs, and reserves. First, the defending force conducts reconnaissance to gain and maintain contact with the enemy. Second, each echelon normally establishes a security area forward of its MBA. All units conduct aggressive security operations within their AO, including the rear area, to seek out and repel or kill enemy reconnaissance and

other forces. Units implement operations security (OPSEC) measures and other defensive information operations to deny the enemy information about friendly dispositions. (See Chapter 12 for more information on security operations.)

Disrupt the Enemy Attack at Every Opportunity

8-44. The defending force conducts operations throughout the depth of the enemy's formation in time and space to destroy his key units and assets, particularly his artillery and reserves, or disrupt their timely introduction into battle at the point of engagement. This allows the defending force to regain the initiative. It conducts spoiling attacks to disrupt the enemy's troop concentrations and attack preparations. The defending force counterattacks enemy successes rapidly with its reserve, the forces at hand, or a striking force before the enemy can exploit success. It conducts offensive information operations to assist this process.

Mass the Effects of Combat Power

8-45. The defending force must mass the effects of its combat power to overwhelm the enemy and regain the initiative. The commander uses economy of force measures in areas that do not involve his decisive operation to mass the effects of his forces in the area where a decision is sought. This decisive point can be a geographical objective or an enemy force. In an area defense, defending units use EAs to concentrate the effects of overwhelming combat power from mutually supporting positions. In a mobile defense, the commander uses the striking force to generate overwhelming combat power at the decisive point. Another way he can generate the effects of mass is through committing his reserve.

Ensure Mutual Support

8-46. Mutual support exists when positions and units support each other by direct, indirect, lethal, and nonlethal fire, thus preventing the enemy from attacking one position without being subjected to fire from one or more adjacent positions. Mutual support increases the strength of all defensive positions, prevents defeat in detail, and helps prevent infiltration between positions. Tactical positions achieve the maximum degree of mutual support between them when they are located to observe or monitor the ground between them or conduct patrols to prevent any enemy infiltration. At night or during periods of limited visibility, the commander may position small tactical units closer together to retain the advantages of mutual support. Unit leaders must coordinate the nature and extent of their mutual support.

Heavy Forces

8-47. When the majority of a defending force consists of mechanized or armored units, the commander can conduct a defense designed to take advantage of the tactical mobility and protection offered by organic combat vehicles. Heavy forces can maneuver to delay the advance of a strong enemy force and then immediately change from a mobile to a static form of defense or counterattack. Such forces are well suited for use as security and MBA forces. They are more suited for operations within an NBC contaminated environment than light forces because of their built-in protection.

Light Forces

8-48. When facing enemy light forces, the commander deploys and uses defending light forces in the same manner as heavy forces are used against other heavy forces. Light forces facing a heavy enemy are primarily used in static roles within the MBA or in security roles within the rear area. When facing heavy enemy forces, light infantry forces are most effective when fighting from prepared defenses or in close terrain, such as swamps, woods, hilly and mountainous areas, and urban areas where they can take advantage of their foot mobility and short-range infantry and anti-armor weapons.

8-49. The commander uses an air assault unit in the same manner as other light forces once it deploys into its landing zones (LZs). (See Appendix C for a discussion of air assault operations.) However, there may be more problems in extracting such a force, particularly if it is in direct contact with the enemy. Because of its mobility and potential reaction speed, an air assault force is often well-suited for a reserve role during defensive operations. Its tasks might include—

- Rapid reinforcement of a threatened position.
- Occupation of a blocking position, possibly in conjunction with existing defensive positions.
- Rear area security operations, such as containment of an enemy airborne or helicopter assault.
- Reinforcement of encircled friendly forces.
- Flank protection.

Rotary- and Fixed-Wing Aviation

8-50. Aviation assets are particularly valuable in the defense because of their speed, mobility, and versatility. Their tasks can include—

- Conducting reconnaissance and security operations.
- Conducting shaping operations to establish the necessary conditions for decisive operations by other forces through attritting, disrupting, and delaying the enemy.
- Conducting counterattacks and spoiling attacks.
- Controlling ground for limited periods where a commander does not wish to irrevocably commit ground forces; for example, forward of an executed obstacle.
- Blocking enemy penetrations.
- Closing gaps in a defense plan before the arrival of ground maneuver forces.
- Facilitating the disengagement of ground forces.
- Countering enemy activities in the rear area, in particular enemy airborne or air assault forces.
- Using available utility and cargo helicopters in their normal roles to support the defensive effort, such as resupplying the defending force with Class IV barrier material or facilitating casualty evacuation.
- Assisting in the countermobility effort.
- Providing long-range biological surveillance.

FIRE SUPPORT

8-51. In the defense, the commander uses his fire support systems to neutralize, suppress, or destroy enemy forces; to delay or disrupt the enemy's ability to execute a given COA; and to enhance the effects of massed direct fires. Thus fire support systems support both the commander's decisive and shaping operations.

8-52. The defending force is more effective if it can locate and attack enemy forces while the enemy is stationary and concentrated in assembly areas or advancing along LOCs, as opposed to when he is deployed in combat formations within the MBA. To accomplish this, the defending force must employ its fire support system throughout its AO. It must be closely linked to target acquisition means, including ISR assets.

8-53. As the commander develops his defensive plans, he must visualize how to synchronize, coordinate, and distribute the effects of indirect and direct fire at the decisive time and place. He places permissive FSCM as close as possible to friendly positions to facilitate the rapid engagement of attacking enemy forces. Prior coordination facilitates the massing of the effects of fires before enemy targets concentrated at obstacles and other choke points can disperse. Proper distribution of fire effects ensures the massing of overwhelming combat power at the decisive point. Proper fire distribution also ensures that high-payoff targets are destroyed without wasting assets through repetitive engagement by multiple friendly systems.

8-54. Indirect fires have the greatest impact on the enemy when they are synchronized with direct fires and the use of obstacles, defensive positions, and counterattack plans. The commander must integrate the defensive fire and obstacle plans from the beginning. Indirect fires complement the effects of obstacles and can disrupt enemy attempts to breach or bypass these obstacles. For the plans to work, all elements in the fire support chain—from forward observers in fire support teams to the fire support coordinator including the supporting tactical air control party—must understand the commander's intent, the scheme of maneuver, and the obstacle plan.

8-55. There are various fire support considerations for each phase of the fight. As part of his shaping operations during defense preparations, a commander tries to disrupt the enemy's attack preparations by—

- ?? Conducting harassing fires on choke points and likely enemy assembly areas.
- ?? Employing air support on known, suspected, and likely enemy locations.
- ?? Attritting his resources by continuously engaging high-payoff targets.
- ?? Conducting offensive information operations to degrade the enemy's ability to command and control his forces.
- ?? Employing counterfires to engage and destroy enemy artillery and mortar systems attempting to deliver suppressive fires.
- ?? Providing fires in support of the unit's security operations, such as a unit conducting the tactical mission task of counterreconnaissance.

In some situations it may be better to wait to execute a counterfire mission until the fighting begins in the MBA. However, when defending forces enjoy qualitative advantages in fire support, the advantages accruing from a counterfire battle usually outweigh the risks to the defending maneuver force. The

defender's ability to mass fires quickly and then rapidly reposition its forces is a major factor in disrupting the enemy and establishing the required conditions for successful decisive operations.

8-56. The commander employs fires to support his security forces, using precision and other munitions to destroy enemy reconnaissance and other high-payoff targets. This also helps to deceive the enemy about the location of the MBA. He supports the security force by planning the delivery of the effects of fires at appropriate times and places throughout his area of influence to slow and canalize the enemy forces as they approach the security area. This allows the security force to engage the enemy on more favorable terms. To prevent fratricide, he places no fire areas over his security forces. Finally, he uses fires to support the withdrawal of the security force once its shaping mission is complete and the defending unit is prepared to conduct MBA operations.

8-57. Air support can play an important part in delaying enemy forces following or attempting to bypass rearward-moving defending forces. Air operations contribute to overcoming the enemy's initial advantage of freedom of action. Often, only aircraft are available to initially oppose an enemy penetration until ground forces can redeploy to engage it. Close air support (CAS) can be instrumental in disrupting an enemy advance. It can operate with Army helicopters and artillery assets to form a joint air attack team (JAAT). The commander also incorporates artillery fires with electronic warfare and joint systems to suppress enemy air defenses while CAS hits a target. Air interdiction can delay, destroy, or neutralize enemy follow-on forces, thereby providing the commander with additional time to prepare his defensive positions.

8-58. Once the fight moves into the MBA, fire support assets continue to target enemy combat units to force them to deploy. At the same time, fire support assets inflict casualties, disrupt the cohesion of the enemy's attack and impede his ability to mass combat power. Fire support assets continue to attack enemy follow-on forces before they can be committed to the MBA. This further isolates the attacking enemy force. They attack C2 facilities and logistics sites in depth to contribute to isolating the attacking enemy. The commander takes advantage of the range and flexibility of his fire support weapons to mass fires at critical points, such as obstacles and EAs, to slow and canalize the enemy to provide better targets for direct fire systems. Fire support systems cover barriers, gaps, and open areas within the MBA. Tasks assigned to these fire support systems include closing obstacle gaps or reseeding previously breached obstacles in accordance with the rules of engagement. Other tasks include—

- Massing fires to suppress enemy direct and indirect fire systems to facilitate defensive maneuver, especially the counterattack and disengagement.
- Neutralizing or isolating enemy forces that have penetrated the defensive area and impeding the movement of enemy reserves.
- Attacking enemy artillery and forward air defense elements.
- Using jamming to degrade or destroy the enemy's ability to transmit data and information.
- Reallocating fire support assets, after identifying the enemy's main effort, to reinforce fires in the most vulnerable areas.

?? Separating attacking enemy combat vehicles from light infantry, disrupting the enemy's combined arms team.

8-59. In response to shallow enemy penetrations, artillery commanders normally reposition their systems laterally, away from that point. This allows artillery systems to provide fire support throughout the area of penetration.

AIR DEFENSE

8-60. Freedom of movement is essential to successful defensive operations. In a hostile air environment, the defending force must establish air defense in depth around critical points, areas, units, and activities. The dedicated air defense artillery resources probably cannot provide adequate cover completely throughout the AO against all possible threats; therefore, the commander must establish priorities for coverage and assume risk.

Active Air Defense

8-61. Normally, the commander's priorities for air defense protection in the defense begin with his C2 facilities. Because they are generally fixed or semi-fixed sites with high-electronic signatures, they are susceptible to attack by enemy aircraft. Air defense coordinators examine air avenues of approach toward C2 facilities and position guns and missiles to prevent enemy aircraft from reaching their targets.

8-62. Logistics support areas, main supply routes (MSRs), and other logistics sites are also relatively fixed and easily identified from the air. Passive air defense measures help prevent detection. However, once the enemy detects them, he will attempt to attack them. Therefore, route and point security missions require air defense units to locate along the MSR and in positions to protect fixed locations. The commander allocates his air defense assets to protect these locations in accordance with the factors of METT-TC.

8-63. The air defense responsibility may be most critical in forward areas since the commander will task air defense artillery (ADA) units along the FEBA to engage enemy aircraft providing CAS or attempting low-level penetration of friendly air defenses en route to a target in the friendly rear area. Air defense assets protecting combat forces in forward battle positions and strong points are more exposed to destruction by enemy direct and indirect systems than air defense systems located elsewhere on the battlefield. The commander must take steps to ensure their survivability, such as placing man-portable air defense missile gunners inside combat vehicles when not actively engaging enemy aircraft.

8-64. The reserve or striking force is initially a stationary hidden force. However, it is easy to observe from the air as it moves on its commitment by the commander. It is especially vulnerable once discovered. Therefore, the commander positions air defense assets to protect the reserve or striking force, whether it is stationary or moving.

8-65. Air defense systems that protect the reserve and the striking force must be as mobile and protected as the forces they are protecting. The less mobile equipment is usually kept in more static roles. The commander continually coordinates his air defense activities with his air and artillery operations to

avoid fratricide. Air defense units and support assets move in support of the defensive effort. If the enemy can disrupt this support from the air, it will affect the defense. Correct assessment of enemy air corridors and tactics is essential to guarantee protection and management of these resources.

8-66. The destruction of key bridges or the closing of choke points interrupts the defender's freedom of movement. The force must protect these positions to sustain the defense and allow the conduct of counterattacks. The commander locates air defense assets to protect these vital locations.

Passive Air Defense

8-67. The commander also uses passive air defense measures to protect his force. *Passive air defense measures* are all measures other than active defense taken to minimize the effects of the hostile air action (FM 3-01.8). Passive defense measures are of two types: attack avoidance and damage-limiting measures. Both include the use of cover, concealment and camouflage, and deception.

8-68. **Attack Avoidance.** Attack avoidance means taking steps to avoid being seen by the enemy. If the force cannot be seen, the probability of it being hit diminishes to near zero. The commander uses the same techniques, procedures, and materials for concealment from aerial observation as for concealment from ground observation. He employs three principles to enhance concealment—

- **Siting.** Siting means selecting the most advantageous position in which to hide a man, an object, or an activity. This is often the shadows provided by woodlines, wadies, and buildings.
- **Discipline.** Success in any concealment effort hinges on strict concealment discipline by units and individual soldiers. The unit should avoid activities that change the appearance of an area or reveal the presence of military equipment. Laxness and carelessness will undoubtedly reveal a position. Tracks, spoil, and debris are the most common signs of military activity, which indicate concealed objects. Ensure that new tracks follow existing paths, roads, fences, or natural lines in the terrain pattern. Do not end exposed routes at a position, but extend them to another logical termination. If practical, the unit should brush out, camouflage, or cover its tracks. It should cover or place spoil and debris to blend with the surroundings. The unit adds artificial camouflage when the terrain and natural vegetation are such that natural concealment is not possible.
- **Construction.** Adding natural materials to blend with the surrounding terrain augments this type of concealment.

8-69. There are three fundamental methods of concealing installations and activities—hiding, blending, and disguising.

- **Hiding.** Hiding is the complete concealment of an object by some form of physical screen. For example, sod placed over mines in a minefield hides the mines; the overhead canopy of trees hides the objects beneath from aerial observation; a net hides objects beneath it; a defilade position hides objects from ground observation. In some cases, the screen may be invisible. In other instances, the screen may be visible, but it hides the activity behind it.
- **Blending.** Blending is arranging or applying camouflage materials on, over, and around the object so that it appears to be part of the back-

ground. Examples include applying face paint to the exposed areas of skin, and adding burlap, paint, and live vegetation to helmets and clothing to closely resemble or blend into the background. Units can apply the same technique for equipment or structures.

?? **Disguising.** Clever disguises can often mislead the enemy about the friendly force's identity, strength, and intention, and may draw his fire from real assets. Therefore, the simulation of objects, pieces of equipment, or activities may have military significance. Inflatable tanks, tents, and buildings can look like the real thing to an aerial observer.

8-70. In addition to hiding equipment, units can avoid detection by using mud for glassy surfaces and unfilled sandbags over windshields. Camouflage is one of the basic weapons of war. Soldiers must understand the importance, the principles, and the techniques of camouflage. All personnel must ensure the effectiveness of all camouflage measures and maintain strict camouflage discipline.

8-71. **Damage-Limiting Measures.** The other type of passive air defense, damage limiting, is also used for survival. These measures attempt to limit damage if the enemy detects the position. If the enemy is to destroy any equipment, he is forced to do it one piece at a time. Enemy forces should never be able to put a unit out of action with just a single attack. The commander uses the same measures taken to limit damage from field artillery attack—dispersion, protective construction, and cover.

?? **Dispersion.** Dispersed troops and vehicles force the attacker to concentrate on a single small target that he will likely miss. The wider the dispersion, the greater the potential for limiting damage.

?? **Protective Construction.** Using cover, natural or manmade, acts to reduce damage and casualties. Folds in the earth, natural depressions, trees, buildings, and walls offer damage-limiting cover; individuals and units should seek them out and use them habitually. If deployment is in flat terrain lacking cover, digging in or sandbagging can offer some protection. The unit employs smoke if it is moving and cannot use natural cover or cannot build fortifications. Smoke makes target acquisition much more difficult for the attacker.

?? **Cover.** Cover emphasizes the importance of passive defense against an air attack. The unit must do everything it can to avoid an attack in the first place, but if it is attacked, it uses cover and dispersion to limit the amount of damage.

Air Defense Role in Reconnaissance and Surveillance

8-72. A commander can direct his air defense systems to deploy forward with scouts along potential air corridors based on the aerial IPB developed by his intelligence and air defense officers. This provides early warning of enemy air infiltration and allows timely engagement of enemy aerial platforms attempting to insert dismounted reconnaissance, infantry, and antiarmor teams. The air defense systems can report stationary locations of enemy aircraft to assist the supported unit in confirming templated LZs. This allows the unit to quickly react to potential ground threats by calling for indirect fires or employing a quick reaction force to defeat this threat. The commander assigns a clear mission to these systems to ensure that they do not compromise the supported

unit's integrated ISR plan by prematurely engaging enemy aerial reconnaissance platforms. He establishes a well-defined trigger event to prevent this from happening. Additionally, he ensures the integration of ADA unique munitions into the supported unit's CSS plan based on the planned time that these assets will be forward.

MOBILITY/COUNTERMOBILITY/SURVIVABILITY

8-73. An attacking enemy has the initiative in terms of where and when he will attack. A defending commander must take a wide range of actions to protect the mobility of his force while degrading the mobility of the enemy. He takes those steps simultaneously to protect his force from losses due to enemy actions.

Mobility

8-74. During the defense, mobility tasks include maintaining routes, coordinating gaps in existing obstacles, and supporting counterattacks. Engineers also open helicopter LZs and tactical landing strips for fixed-wing aircraft. Maintaining and improving routes and creating bypass or alternate routes at critical points are major engineering tasks because movement routes are subjected to fires from enemy artillery and air support systems. These enemy fires may necessitate deploying engineer equipment, such as assault bridging and bulldozers, forward. The commander can also evacuate dislocated civilians or restrict their movements to routes not required by his forces to enhance his mobility. He can do this provided he coordinates the action with the host nation or the appropriate civil military operations agency and fulfills his responsibilities to displaced civilians under international law.

8-75. Priority of mobility support is first to routes used by counterattacking forces, then to routes used by main body forces displacing to subsequent positions. This mainly involves breaching obstacles and improving combat roads and trails to allow tactical support vehicles to accompany moving combat vehicles. Careful coordination ensures leaving required lanes or gaps in obstacles for repositioning main body units and committing the counterattack force during the defense. Chemical reconnaissance systems also contribute to the force's mobility in a contaminated environment.

Countermobility

8-76. In the defense, the commander normally concentrates his engineer efforts on countering the enemy's mobility. A defending force typically requires large quantities of Class IV and V material and specialized equipment to construct fighting and survivability positions and obstacles. With limited assets, the commander must establish priorities among countermobility, mobility, and survivability efforts. He ensures that his staff synchronizes these efforts with the echelon's logistic plans.

8-77. The commander may plan to canalize the enemy force into a salient. In this case, he takes advantage of the enemy force's forward orientation by fixing the enemy and then delivering a blow to the enemy's flank or rear. As the enemy's attacking force assumes a protective posture, the defending commander rapidly coordinates and concentrates all effects of his fires against unprepared and unsupported segments of the enemy force in rapid sequence. The unit may deliver these fires simultaneously or sequentially.

8-78. When planning obstacles, commanders and staffs must consider not only current operations but also future operations. The commander should design obstacles for current operations so they do not hinder future operations. Any commander authorized to employ obstacles can designate certain obstacles that are important to his ability to shape the battlefield as high-priority reserve obstacles. He assigns responsibility for preparation to a subordinate unit but retains authority for ordering their execution or final completion. An example of a reserve obstacle is a highway bridge over a major river. Such obstacles receive the highest priority in preparation and, if ordered, execution by the designated subordinate unit.

8-79. A commander integrates reinforcing obstacles with existing obstacles to improve the natural restrictive nature of the terrain to halt or slow enemy movement, canalize enemy movement into EAs, and protect friendly positions and maneuver. He may choose to employ scatterable mines in accordance with the rules of engagement. Direct and indirect fires must cover obstacles to be effective. This requires the ability to deliver effective fires well beyond the obstacle's location. When possible, units conceal obstacles from hostile observation. They coordinate obstacle plans with adjacent units and conform to the obstacle zone or belts of superior echelons.

8-80. Effective obstacles force the enemy to attempt to breach them if he wants to maintain his momentum and retain the initiative. While the defending force is aware that the enemy is going to breach an obstacle, the enemy tries to conceal exactly where and when he will try to breach. The defending force's plan addresses how to counter such a breach, to include reestablishing the obstacle by using scatterable mines and other techniques.

8-81. Given time and resources, the defending force generally constructs additional obstacle systems to its flanks and rear. These systems can provide additional protection from enemy attacks by forcing the enemy to spend time and resources to breach or bypass the obstacle. This, in turn, gives the defending force more time to engage enemy forces attempting to execute breach operations or bypass these obstacles.

8-82. The commander designates the unit responsible for establishing and securing each obstacle. He may retain execution authority for some obstacles or restrict the use of some types of obstacles to allow other battlefield activities to occur. He allows his subordinate commanders some flexibility in selecting the exact positioning of obstacles. However, all units must know which gaps—through obstacles and crossing sites—to keep open for the unit's use, as well as the firing and self-destruct times of scatterable mines to prevent delays in movement. The commander must be specific and clear in his orders for firing demolitions, emplacing obstacles, and closing lanes. As each lane closes, the closing unit reports the lane's closure to the higher, subordinate, and adjacent headquarters to preclude displacing units from moving into areas with unmarked or abandoned obstacles.

8-83. Tactical and protective obstacles are constructed primarily at company level and below. Small unit commanders ensure that observation and fires cover all obstacles to hinder breaching. Deliberate protective obstacles are common around fixed sites. Protective obstacles are a key component of survivability operations. They are tied in with FPFs and provide the friendly force with close-

in protection. Commanders at all echelons track defensive preparations, such as establishing Class IV and V supply points and start or completion times of obstacle belts and groups. The commander plans how he will restore obstacles the enemy has breached. He uses artillery, air, or ground systems to reseed minefields.

8-84. FM 3-34.1 provides additional information about obstacles and obstacle integration, such as planning factors relating to emplacing obstacles and obstacle function versus lethality. It also describes the methods and essential principles for planning protective obstacles.

Survivability

8-85. Since the attacking enemy force usually has the initiative in terms of where and when it will attack, a defending commander must take a wide range of actions to protect his force from losses due to enemy actions. These steps include ensuring all-around defense, NBC defense, and using smoke.

8-86. The survivability effort for the defense must enable units to concentrate firepower from fixed positions. To avoid detection and destruction by the enemy, units move frequently and establish survivability positions quickly. To provide flexibility, units may need primary, alternate, and supplementary positions. This is particularly true of units defending key or decisive terrain. Units enhance their survivability through concealment, deception, dispersion, and field fortifications.

8-87. Survivability tasks include using engineer equipment to assist in preparing and constructing trenches, command post shelters, and artillery firing, radar, and combat vehicle fighting positions. The commander provides guidance on the level of protection—such as hull defilade or overhead cover, system priorities, and early use of specialized engineer systems that can construct survivability positions. He should protect supply stocks against blast, shrapnel, incendiaries, and NBC contamination. Supplies loaded on tactical vehicles can be protected against almost anything but a direct hit by constructing berms large enough to accommodate the vehicles and deep enough to keep supplies below ground level. The force's engineer officer can advise CSS logistics operators about storage area site selection that reduces the requirements for engineer survivability support without reducing the degree of protection provided. FMs 3-34.1 and 3-34.112 provide additional information concerning the construction and maintenance of survivability positions.

8-88. The commander should avoid predictable defensive preparations because an enemy will tend to attack lightly defended areas. Major positions, facilities, and operational logistics sites may require special camouflage. Camouflage measures that provide this protection include constructing dummy positions and decoys. The commander carefully plans the use of such measures within the framework of real positions and ongoing and future operations. The echelon's OPSEC program and any deception efforts conducted in accordance with guidance from higher echelons should conceal from the enemy or mislead him about the location of the MBA and the disposition of friendly forces.

8-89. **Ensure All-Around Defense.** Units employ all-around security at all times although they deploy the bulk of their combat power against likely enemy

avenues of approach. This is because the battlefield offers many opportunities for small enemy elements to move undetected.

8-90. **NBC Defense.** Because defending units are often in fixed positions, they increase their vulnerability to weapons of mass destruction. The commander specifies the degree of risk he is willing to accept and establishes priorities for his NBC defense units. He positions forces and installations to avoid congestion, but he must not disperse to the extent that he risks defeat in detail by an enemy employing conventional munitions.

8-91. The commander determines the mission oriented protective posture (MOPP) level assumed by his force if the MOPP level has not already been established by a higher headquarters. Environmental factors determine where he places his NBC detection devices. He ensures that his unit can conduct hasty and deliberate decontamination of its soldiers and equipment. He drills his unit on measures taken in response to the enemy's use of weapons of mass destruction.

8-92. The commander should employ NBC reconnaissance units along movement routes and at potential choke points. Proper use of these assets enables the commander to reduce casualties and complete his mission. (FMs 3-11 and 3-12 detail NBC defense operations.)

8-93. **Smoke and Obscuration.** The commander uses smoke to disrupt the enemy's assault or movement formations and deny his use of target acquisition optics, visual navigation aids, air avenues of approach, LZs, and drop zones (DZs). Smoke creates gaps in enemy formations, separating or isolating attacking units, and disrupting their planned movement. Bispectral obscuration can blind attackers who lack thermal viewers or other enhanced optical systems. It prevents overwatching enemy elements from observing and engaging the defender, whereas defending forces with advanced optical systems can acquire and engage the enemy within the smoke. The commander can use smoke to facilitate friendly target acquisition by highlighting enemy systems against a light background while degrading the enemy's optics. Smoke used to mask obstacles located in low-level flight corridors and on LZs and DZs can prevent an enemy from using them or greatly increase his risk.

8-94. The commander uses his smoke-generation capabilities to mark targets and screen and obscure friendly positions. Modern bispectral obscurants provide protection from thermal as well as visual viewing devices. This generated capability must be carefully sited with regard to enemy systems and friendly capabilities. Improper use can create an advantage for the enemy. The effectiveness of smoke depends on weather conditions and the quantity of smoke employed. The commander coordinates the use of smoke generators, artillery/mortar smoke, and smoke pot employment. The capabilities of each of these smoke-producing systems are complementary and most effective when used together to achieve synergistic effects. Using smoke can also enhance the effects of deception operations and cover friendly movement to include a river crossing. (FM 3-11.50 provides details on planning, preparing, and executing smoke operations.)

COMBAT SERVICE SUPPORT

8-95. The commander addresses several CSS considerations unique to the defense in his plan. Priorities for replenishment are normally ammunition and materials to construct obstacles and defensive positions. There is normally a reduced need for bulk fuel. There may be an increased demand for decontaminants and chemical protective equipment. The defense should consider stockpiling or caching ammunition and limited amounts of petroleum products in centrally located positions within the main battle area. The commander should plan to destroy those stocks if necessary as part of denial operations. The supply of obstacle materials in a defense can be a significant problem that requires detailed coordination and long lead times. The commander should not overlook the transportation and manpower required in obtaining, moving, and uncrating barrier material and associated obstacle creating munitions, such as demolition charges and mines.

8-96. The logistics officer (G4 or S4) and the commanders of the logistics units supporting the defending force must understand the commander's tactical intent. They can then establish service support priorities in accordance with the commander's intent and plan logistics operations to ensure the supportability of the operations. Logistics plans should address the provision of CSS during branches and sequels to the defense plan, such as a counterattack into the flank of an adjacent unit.

8-97. Combat units top off regularly with supplies in case an enemy breakthrough disrupts the replenishment flow. At the battalion and brigade level the commander ensures that his CSS operators deliver combat-configured loads to his combat units on a scheduled basis. Combat-configured loads are packages of potable and nonpotable water, NBC defense supplies, barrier materials, ammunition, POL, medical supplies, and repair parts tailored to a specific size unit. This eliminates the need to request supplies and reduces the chance that a lapse in communications will interrupt the supply flow and jeopardize the integrity of the defense. The supported combat unit is resupplied using this push system until it issues instructions to the contrary. The commander can use utility and cargo helicopters to deliver supplies directly from the rear area to the defending unit. Advances in information systems should allow these combat-configured push packages to be accurately tailored to the demands of the supported combat units.

8-98. As a technique, the defending force conducts resupply during periods of limited visibility if the commander does not expect the enemy to conduct a limited-visibility attack. This tends to reduce the chance for enemy interference with the resupply process but also tends to lengthen the amount of time it takes to complete the process. Resupply should take place during daylight hours if the commander expects the enemy to conduct a limited visibility attack. The commander may be required to infiltrate resupply vehicles to reduce detection chances when the enemy possesses a significant air, satellite, or unmanned aerial vehicle capability. The commander may also use smoke to help conceal his logistics operations.

8-99. The CSS commander remains responsible for the defense of his unit. Concealment is an important factor in reducing the risk factors of these units. The commander must plan for the reconstitution of CSS capability lost to enemy activities.

8-100. Terrain management is a critical consideration in the rear area. The commander seeks to position each CSS unit where it can best fulfill its support tasks while using minimal resources to maintain security in conjunction with other units located in the rear area. In contiguous operations, the commander positions his CSS facilities farther to the rear in a defense than in the offense to avoid interfering with the movement of units between battle positions or the forward movement of counterattack forces. It also should be located far enough behind friendly lines that likely enemy advances will not compel the relocation of critical CSS at inopportune times. At the same time CSS must be close enough to provide responsive support. In noncontiguous operations, the commander positions his CSS facilities within the perimeters of his combat units to provide security and avoid interrupting support services. The commander distributes his similar functional CSS units throughout his defensive area in both environments. This distribution allows him to designate one support unit to pick up the workload of a displacing second support unit until that unit is operational.

8-101. The defending commander provides maintenance support as far forward as possible to reduce the need to evacuate equipment. The thrust of the maintenance effort is to fix as far forward as possible those systems that can be quickly returned to the unit in combat-ready condition. He must ensure that multifunctional forward logistics elements contain the maximum variety of DS personnel with appropriate equipment, such as repair sets, kits, and outfits to ensure rapid repair of weapon systems.

8-102. The commander must plan to augment his available ambulances if a mass-casualty situation develops. Units should always plan for mass casualties and have an evacuation plan, including air evacuation, that specifies the use of nonstandard air and ground platforms.

8-103. The conduct of troop movements and resupply convoys is critical to a successful defense. Staffs balance terrain management, movement planning, and traffic-circulation control priorities. They plan multiple routes throughout the AO and closely control their use. The commander may allocate mobility resources to maintain MSRs in a functional condition to support units and supplies moving forward and to evacuate personnel and equipment to the rear. Military police ease these movements, prevent congestion, and respond to maneuver plan changes. Civil affairs and host nation agencies are involved as necessary to minimize the impact of displaced civilians on unit and convoy movements. The commander coordinates air and ground movements supporting the commander's maneuver scheme with any other affected services. Commanders also coordinate such movements with any affected organic and external Army aviation, fire support, air defense units, and ground maneuver units.

8-104. During the preparatory phase of the defense, logistics operators normally pre-position supply stocks, particularly ammunition and barrier materials, in the battle positions of defending forces. They also establish maintenance and medical collection points. Logistics operators must address these and other logistics preparations in the planning process to avoid compromising the operation. These logistics preparations can also be included in military deception plans.

COMMAND AND CONTROL

8-105. A defensive mission generally imposes few restrictions on the defending commander. It allows freedom of maneuver within assigned boundaries, but requires him to prevent enemy penetration of the rear boundary. Defending an AO is a typical mission for battalion and higher-echelon units. This mission allows the commander to distribute forces to suit the terrain and plan an engagement that integrates direct and indirect fires. The commander must ensure that subordinate unit defensive plans are compatible and that control measures, such as contact points and phase lines, are sufficient for flank coordination when assigning AOs. The defensive plan must address what happens when it succeeds and the opportunity exists to transition from defense to offense.

8-106. Defensive operations are often difficult to conduct because they may occur against an enemy who has the initiative and usually superior combat power. The commander must have a clear understanding of the battlefield situation to mass the effects of his forces to disengage committed forces. He takes advantage of war gaming that takes place in the military decision making process to derive his decision points. He bases these decision points on enemy and friendly actions, such as shifting fires, moving between battle positions, and rearming part or all of the defending force. He may require additional signal support to sustain communications across wide frontages characteristic of many defensive operations.

8-107. Because the enemy has the initiative, the commander may have to frequently shift his shaping operations to contain the enemy's attack until he can seize the initiative. This may require him to adjust subordinate unit AOs, repeatedly commit and reconstitute his reserve, and modify the original plan.

8-108. The defending commander may change his task organization to respond to the existing or projected situation, such as forming a detachment left in contact prior to conducting a withdraw. Whenever possible the commander ensures that changes in task organization take place between units that have previously trained or operated together to take advantage of established interpersonal relationships. The commanders of such recently reorganized units place special attention on ensuring that each element directs its efforts toward accomplishing the overall unit's mission, thus obtaining the maximum combat capability provided by combined arms. This requires them to ensure synchronizing objectives, control measures, movement routes, defensive positions, and specifically assigned tasks. It also requires using standing operating procedures by each element of the task-organized unit. Failure to synchronize the effects of task-organized elements has often resulted in mission failure in training and actual operations.

8-109. To break through the MBA, the enemy often attacks along the boundaries of defending units when he can identify them. Therefore, it is extremely important for commanders at every echelon to ensure that the plan for their part of the defense is properly coordinated not only within their units but also with flanking and supporting units. This coordination is best done by personal visits to subordinate commanders on the ground. The staff should promptly pass on decisions reached during coordination to all concerned. The following planning aspects require attention in the coordination process:

?? Understanding the superior commander's intent and concept of operations.

?? Understanding the tactics to be applied by flanking and supporting units.

?? Selecting boundary locations that do not increase the coordination problem.

?? Planning for mutual support.

?? Surveillance and target acquisition plans.

?? Location and composition of security forces.

?? Obstacles and demolition plans.

?? Fire plans, to include employing AT systems, illumination, and smoke.

?? Air defense coverage areas.

?? Employing the reserve in conjunction with information operations and fire support systems, such as artillery and aviation.

?? Boundaries and other control measures.

?? Communications.

8-110. Because C2 facilities tend to be more stationary in the defense, the commander should place them in hardened areas or protective terrain and reduce their electronic signature. They must remain capable of rapidly relocating to respond to battlefield developments.

COMMON DEFENSIVE SCENARIOS

8-111. Certain common defensive scenarios have their own unique planning considerations. The following section addresses these scenarios and the unique considerations associated with—

?? Defense against airborne and air assault attacks.

?? Defense of a linear obstacle.

?? Perimeter defense.

?? Reverse slope defense.

DEFENSE AGAINST AIRBORNE AND AIR ASSAULT ATTACKS

8-112. Defeating an enemy airborne or air assault begins with a good IPB process to determine the enemy's capabilities to conduct vertical envelopment and identify enemy airfields, pickup zones, DZs, and LZs. Armed with an appreciation of the enemy's capability to conduct vertical envelopment, the commander takes steps to counter the threat before they launch, during their movement to the DZ, or at the LZ. After prioritizing the risk of each potential DZ or LZ to his operation, the commander establishes systematic surveillance of these areas to alert him if the enemy attempts to insert his forces. Units also sight their weapons to cover the most probable DZs and LZs. The fire support plan includes these zones in its target list for conventional munitions and scatterable mines and reflects current rules of engagement and host nation restrictions. Units and engineers emplace obstacles in these locations and block avenues of approach from such areas to critical friendly installations and activities as part of their countermobility and rear area survivability efforts.

8-113. Once enemy forces succeed in landing, the key to a successful defense is speed in containing and counterattacking the inserted enemy force before it

becomes organized and reinforced. Field artillery and attack helicopters must commit rapidly to take advantage of the concentration of targets in the insertion area. Affected base and base cluster defense forces and available response forces keep the enemy force under observation at all times, calling in and designating targets for available fire support systems. The commander rapidly musters and commits available heavy units and combat systems to take advantage of enemy light forces' vulnerabilities to attack by armored vehicles while they remain concentrated in the insertion area. If more enemy troops land and succeed in consolidating, local base and base cluster defense forces and the response force try to fix the enemy force in a chosen location to allow a tactical combat force (TCF) to counterattack. If the enemy force is too large for the TCF to reduce, the commander may need to commit his reserve.

DEFENSE OF A LINEAR OBSTACLE

8-114. A commander may conduct either an area or mobile defense along or behind a linear obstacle. An area defense is normally preferred because it accepts less risk by not allowing the enemy to cross the obstacle. Linear obstacles such as mountain ranges or river lines generally favor a forward defense. The defending force seeks to defeat any enemy attempt to secure a bridgehead across the linear obstacle. Local defending units immediately and violently counterattack any enemy bridgeheads established to destroy enemy forces located within the bridgehead, while higher echelons attempt to isolate enemy bridgehead sites. If the enemy secures a bridgehead and strikes out rapidly, it could quickly penetrate the defending force. This requires the commander to conduct retrograde operations, either a delay or a withdrawal.

8-115. It is extremely difficult to deploy in strength along the entire length of a linear obstacle. The defending commander must conduct economy of force measures in some areas. Within an area defense, the commander's use of a defense in depth accepts the possibility that the enemy may force a crossing at a given point. The depth of the defense should prevent the enemy from rapidly exploiting its success. It also defuses the enemy's combat power by forcing him to contain bypassed friendly defensive positions in addition to continuing to attack positions in greater depth. Once the enemy force secures several bridgeheads, the defending force moves to contain them. The defending force commander may choose not to counterattack until he can mass overwhelming combat power. He will probably choose to eliminate the bridgeheads sequentially in this case. However, he risks allowing the enemy to establish and fortify bridgehead crossing sites sufficiently to prevent the counterattack force from eliminating them.

8-116. The mobile defense gives the enemy an opportunity to cross the obstacle with a portion of his force. The commander conducting a mobile defense along a linear obstacle normally employs minimal forces along the obstacle as his fixing force. This generally allows the enemy to cross in at least one location. Once the enemy has partially crossed and the obstacle divides his forces, the commander conducts shaping operations to isolate the enemy bridgehead. Once the bridgehead is isolated, the defending commander launches a decisive attack by the striking force to destroy that isolated enemy bridgehead. He may also choose this technique when the enemy is likely to use weapons of mass destruction.

8-117. Alternatively, in a mobile defense the commander may take advantage of terrain or smoke to hide a striking force until the enemy's forward elements pass this force. Until committed, the striking force maintains a perimeter defense. This technique closely resembles the use of stay-behind forces. Similarly, the commander may order units inadvertently bypassed by the enemy not to break out immediately so that he may capitalize on their position to destroy the enemy.

PERIMETER DEFENSE

8-118. The commander can employ the perimeter defense as an option when conducting an area or mobile defense. The commander uses it in many other circumstances, such as when his unit is bypassed by the enemy or in base and base cluster defense in the rear area.

8-119. A perimeter defense is oriented in all directions. Aggressive patrolling and security operations outside the perimeter are prerequisites for a successful perimeter defense. These activities can be undertaken by the unit within the perimeter or by another force, such as the territorial defense forces of a host nation. The unit can organize a perimeter defense to accomplish a specific mission, such as protecting a fire base, or providing immediate self-protection, such as during resupply operations when all-around security is required. The commander establishes a perimeter when the unit must hold critical terrain, such as a strong point, or when it must defend itself in areas where the defense is not tied in with adjacent units. This occurs when the unit is operating behind enemy lines or when it is securing an isolated objective, such as a bridge, mountain pass, or airfield. A unit may also form a perimeter when it has been bypassed and isolated by the enemy and it must defend in place, or it is located in the friendly rear area within the confines of a base or base cluster. (See Figure 8-10.) However, divisions and corps can also organize a perimeter defense when necessary.

8-120. A major characteristic of a perimeter defense is a secure inner area with most of the combat power located on the perimeter. Another characteristic is the ease of access for resupply operations. The commander coordinates direct and indirect fire plans to prevent accidentally engaging neighboring friendly units and noncombatants. Normally, the reserve centrally locates to react to a penetration of the perimeter at any point.

8-121. Perimeters vary in shape depending on the terrain and situation. If the commander determines the most probable direction of enemy attack, he may weight that part of the perimeter to cover that approach. The perimeter shape conforms to the terrain features that best use friendly observation and fields of fire. The commander can increase the effectiveness of the perimeter by tying it into a natural obstacle, such as a river, which allows him to concentrate his combat power in more threatened sectors.

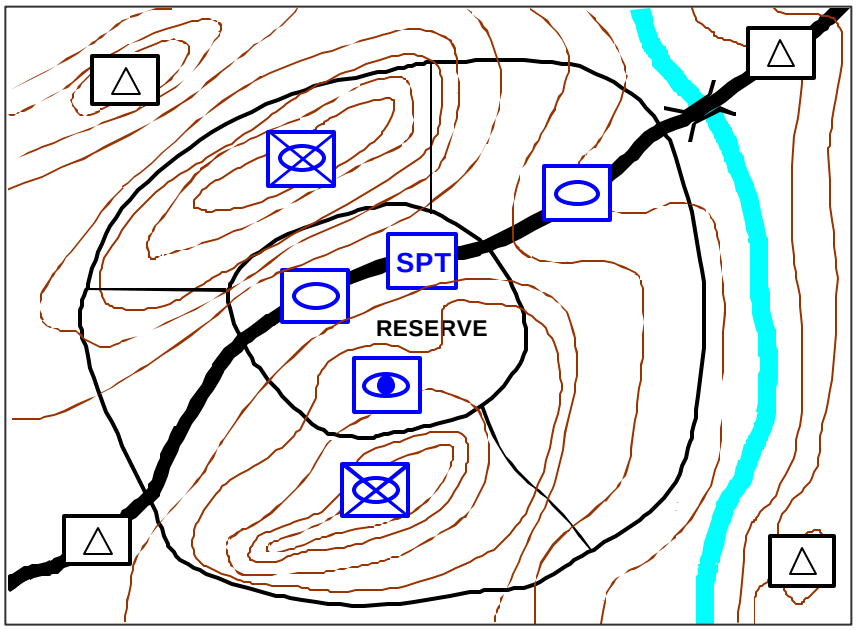

Figure 8-10. Perimeter Defense

Organization of Forces

8-122. The commander may employ all of his forces forward along the perimeter or establish a defense in depth within the perimeter. The commander employs patrols, raids, ambushes, air attacks, and supporting fires to harass and destroy enemy forces before they make contact with the perimeter, thus providing defense in depth with both techniques.

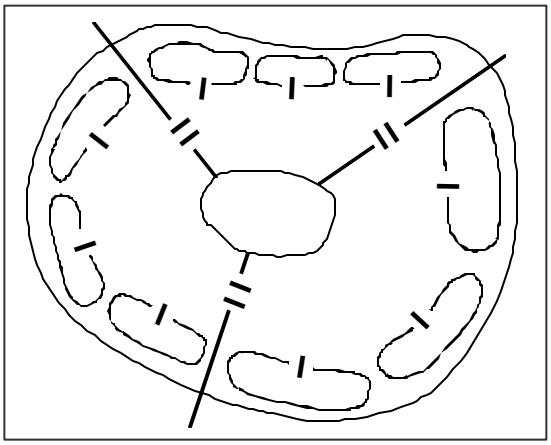

Figure 8-11. All Company Teams on the Perimeter

8-123. In the first technique, he places all of his subordinate units in positions along the perimeter. He divides the perimeter into subordinate unit AOs with boundaries and coordinating points. (See Figure 8-11.) This reduces the possibility of fratricide within the perimeter and maximizes combat power on the perimeter.

8-124. Constructing an outer and inner perimeter creates some depth in the defense in the second technique. Using a brigade assembly area as an example, the commander places two companies in each battalion task force along the outer perimeter and one company in reserve along the inner perimeter. (See Figure 8-12.) This configuration gives depth to the battalion task force's positions and facilitates control. It also gives one company from each battalion task force the mission to support frontline platoons. It enables the company commander to locate any indirect fire systems, such as mortars, near the reserve platoon, enhancing control and security. Alternatively, the commander could elect to assign two battalion task forces to the outer perimeter and a third battalion to an inner perimeter, retaining a larger, more cohesive central reserve. (See Figure 8-13.)

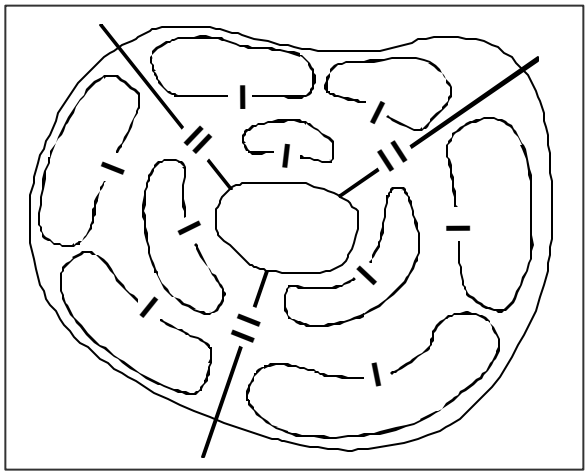

Figure 8-12. Three Battalion TFs on Perimeter, Co/Teams Positioned in Depth

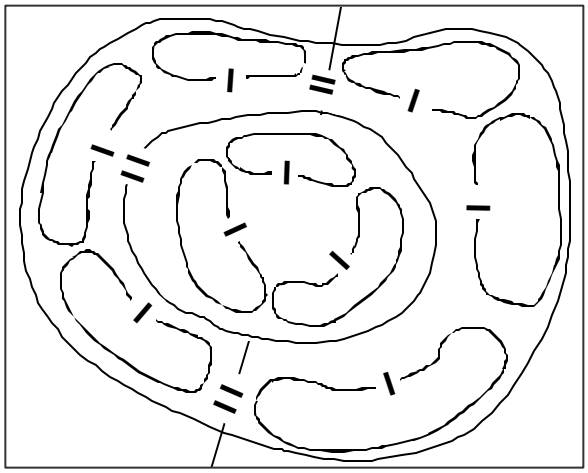

Figure 8-13. Two Battalion TFs on the Perimeter, One in Reserve

8-125. The commander positions his forces within the perimeter to decrease the possibility of an enemy simultaneously suppressing his inner and outer perimeter forces with the same fires regardless of the method used. Friendly forces within the perimeter must be capable of providing mutual support. The commander covers gaps on the outer perimeter between units in open terrain with fires. He should allow no gaps between defensive fighting positions when his unit is in restrictive terrain with restricted fields of fire and observation. This may mean that a unit defends along a narrower frontage than on more open terrain. The commander may also have to employ all of his subordinate units on the line formed by the perimeter. The commander ensures that outer perimeter positions have rearward protection from inner perimeter weapons once he establishes the inner perimeter.

8-126. The commander normally assigns combat vehicles supporting the defense firing positions on the perimeter to cover the most likely mounted avenues of approach. He should select and prepare alternate and supplemental firing positions and routes to and from them. If the perimeter has several mounted avenues of approach leading to it, the commander may elect to hold his combat

vehicles in hide positions until the enemy approaches. Units prepare routes, firing positions, and range cards in advance for all positions. Small-unit leaders must ensure that vehicles do not destroy communication wires when they displace from one position to another.

8-127. The need to hold or protect features—such as bridges, airfields, or LZs—from enemy observation and fires may restrict the positioning of units within a perimeter. These factors, as well as the inability to achieve depth, make a perimeter defense vulnerable to penetration by heavy enemy forces. The commander reduces these vulnerabilities by—

- Developing reconnaissance and surveillance plans that provide early warning.
- Positioning antiarmor weapon systems on armor-restrictive terrain to concentrate fires on armor approaches.
- Providing as much depth as the diameter of the perimeter to allow the proper placement of security elements and the reserve and the designation of secondary sectors of fire for antiarmor weapons.
- Constructing obstacles to fix or block enemy forces, so that friendly units can effectively engaged them.
- Using smoke and deception.

8-128. If isolation from other friendly units drives the commander to form a perimeter, such as during rear operations, CS and CSS elements from other units may seek the perimeter's protection. These elements are given defensive missions based on their capabilities. The commander coordinates and integrates any fire support provided from outside the perimeter into the overall defensive plan. This extra fire support conserves the ammunition of units within the perimeter.

8-129. The commander normally employs any reconnaissance assets, such as a scout platoon, outside the perimeter to provide early warning. He may augment security with squad-size or smaller observation posts that are provided and controlled by units on the perimeter. He positions these security elements to observe avenues of approach. Patrols cover areas that cannot be observed by stationary elements. Any security forces operating outside the perimeter must coordinate their passage of lines into and out of the perimeter with the appropriate perimeter units.

8-130. The reserve may be a designated unit or a provisional force organized from available personnel and equipment. The reserve forms a second line of defense behind the perimeter forces. Ideally, the reserve is mobile to react to enemy action along any part of the perimeter. The commander positions the reserve to block the most dangerous AA and assigns on-order positions on other critical avenues. The commander may task available combat vehicles initially occupying firing positions on the perimeter with the mission of reinforcing the reserve.

Control Measures

8-131. The commander in a perimeter defense designates the trace of the perimeter, battle positions, coordinating points, and lateral and forward boundaries. He can use EAs, target reference points, final protective fires, and

principal direction of fire as fire control measures. The commander designates checkpoints, contact points, passage points, and passage routes for use by local reconnaissance, surveillance, and security elements operating outside the boundary of the perimeter. (See Figure 8-14.)

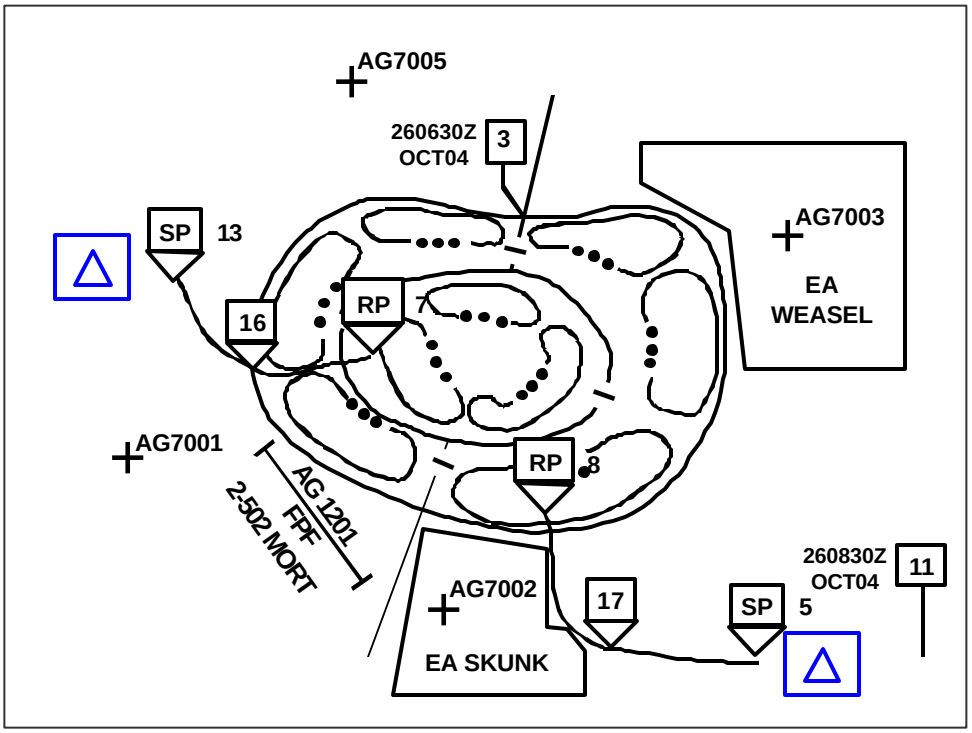

Figure 8-14. Perimeter Defense Control Measures

Planning a Perimeter Defense

8-132. The defending commander positions his forces and plans fire and movement so he can respond to the widest possible range of enemy actions. He prepares plans, including counterattack plans. He rehearses, evaluates, and revises these plans as needed. The availability of LZs and DZs protected from enemy observation and fire is a major consideration when selecting and organizing the perimeter defense. The commander must emphasize supply economy and protect existing supply stocks since aerial resupply is vulnerable to weather and enemy fires. The commander considers the following fundamentals when planning a perimeter defense.

8-133. **Use of Terrain.** Proper evaluation and organization of the area are essential to maximize the effectiveness of a force conducting perimeter defense. Factors considered are—

- ?? Natural defensive characteristics of the terrain.
- ?? Using artificial obstacles to enhance the natural defensive characteristics of the terrain.
- ?? Existing roads, railways, and waterways used for military LOCs and civilian commerce.

?? Controlling land areas surrounding the perimeter to a range beyond that of enemy mortars and rockets and also controlling water approaches.

8-134. **Security.** Early warnings of pending enemy actions ensure the commander time to react to any threat. Combat outposts, patrols, sensors, target acquisition radars, and aerial surveillance provide early warning. Civilian informants and actions of indigenous personnel near the position are excellent indicators of pending enemy actions. Security measures vary with the enemy threat, forces available, and the other factors of METT-TC; however, all-round security is essential.

8-135. **Mutual Support.** The commander positions his defending forces to ensure mutual employment of defensive resources, such as crew-served weapons, observation, and maneuver elements. Mutual support between defensive elements requires careful planning, positioning, and coordination because of the circular aspects of the perimeter defense. He uses surveillance, obstacles, prearranged indirect fires, and the provision for maneuver elements to exploit or reinforce fires to control any gaps in the perimeter. Defensive plans provide for using all available support, including field artillery systems firing danger close, attack helicopters, and close air support.

8-136. **All-Around Defense.** In defensive planning, the commander has to be prepared to defend against enemy attack from any direction. His plans are sufficiently flexible, and he positions his reserve to permit reaction to any threat. The commander commits maneuver elements and available supporting weapons to detect, engage, and destroy the attacking enemy force. He assigns all personnel within the perimeter positions and sectors of fire.

8-137. **Defense in Depth.** Alternate and supplementary positions, combat outposts, and mutually supporting strong points forward of the perimeter extend the depth. The commander plans fires throughout the defensive area up to the maximum range of available weapons. He may place portable obstacles around critical locations within the perimeter during periods of reduced visibility to disrupt the enemy's plan based on visual reconnaissance and add depth to the defense.

8-138. **Responsiveness.** Attacks against a perimeter may range from long-range sniper, mortar, or artillery and rocket fire to attacks by demolition teams or major forces. The enemy has the advantage of deciding when, where, and with what force he will attack. The commander prepares plans, to include counterattack plans, and rehearses, assesses, and revises them as necessary. The defensive plan contains procedures for timely response by fire support teams and maneuver forces.

8-139. **Maximum Use of Offensive Action.** Since the objective of the perimeter defense is to maintain a secure position, the commander uses offensive actions to engage enemy forces outside the base. On initial occupation of the perimeter, friendly forces take offensive actions to destroy enemy forces in the immediate area. Once the perimeter area is clear, a relatively smaller force can defend the perimeter, thereby releasing other forces for their primary operations. The commander employs patrols, raids, ambushes, aerial attacks, and supporting fires to harass and destroy enemy forces to prevent their regaining the capability to threaten the perimeter. The commander maintains constant communications with his subordinates within the perimeter and

provides them the information necessary to maintain a common operational picture among all units located within the perimeter. He directs them to conduct appropriate actions to remove threats located within their AOs and sectors of fire.

Executing a Perimeter Defense

8-140. Attacks against a perimeter may range from long-range sniper, mortar, or rocket fire; to attacks by suicide demolition squads; to attacks by major enemy ground and air forces. Mortars, artillery, tanks, and antiarmor missile systems from within the perimeter engage the enemy at long ranges. As the enemy comes within small arms range, other weapons on the perimeter engage him. If the assault continues, the force employs its available FPFs. If the enemy penetrates the perimeter, the reserve blocks the penetration or counterattacks to restore the perimeter. After committing the initial reserve, the commander must reconstitute another reserve to meet other threats. This force normally comes from an unengaged unit on another portion of the perimeter. If the commander uses an unengaged force to constitute a new reserve, he must retain sufficient forces to defend the vacated sector, unless he is forced to assume that degree of risk.

8-141. Combat service support elements may provide support from within the perimeter or from another location, depending on the mission and the status of the unit forming the defensive perimeter, type of transport available, weather, and terrain. Units in contested areas without secure ground LOC are often resupplied by air.

REVERSE SLOPE DEFENSE

8-142. The commander organizes a reverse slope defense on the portion of a terrain feature or slope with a topographical crest that masks the main defensive positions from enemy observation and direct fire. All or part of the defending force may employ this technique. It is generally useful at lower tactical levels, such as battalion and below.

8-143. The commander bases a successful reverse slope defense on denying the topographical crest to the enemy. Although the defending unit may not occupy the crest in strength, controlling the crest by fire is essential for success. This defensive situation reduces the effects of massive indirect fire (mortar, artillery, and close-air support) and draws the battle into the small- arms range of infantry weapons. Using the reverse slope defense provides the defending force with an opportunity to gain surprise. Its goal is to make the enemy commit his forces against the forward slope of the defense, causing his forces to attack in an uncoordinated fashion across the exposed topographical crest. Firing from covered and concealed positions throughout the battle area, the defending force maintains a distinct advantage over the exposed enemy forces and canalizes them through unfamiliar terrain into kill zones. (Figure 8-15 shows the terminology associated with the reverse slope defense.)

8-144. The commander chooses to conduct a reverse slope defense when—

- ?? The crest and forward slope are untenable because the enemy enjoys a quantative or qualitative advantage in firepower at that point.
- ?? His weapons cannot depress enough to engage.

?? The crest and forward slope offer little or no cover and concealment.

?? The forward slope has been lost or has not been seized.

?? Units on the flanks can adequately cover the forward slope.

?? Variance in the force's tactical pattern is advisable to deceive or surprise the enemy.

?? The commander is forced to assume a hasty defense while in contact with or in proximity to the enemy.

8-145. The reverse slope defense may deceive the enemy regarding the true location and organization of the main defensive positions. This defense protects the main defensive positions from preparation fires and causes the enemy to deploy into assault formations prematurely. The forward crest of the main defensive positions limits the enemy's observation. It reduces the effectiveness of enemy indirect fires and close air support and renders his direct fire weapons ineffective. The defending force may bring surprise fires to bear on the enemy as he crests the high ground. Units on the reverse slope have more freedom of movement until the crest is lost.

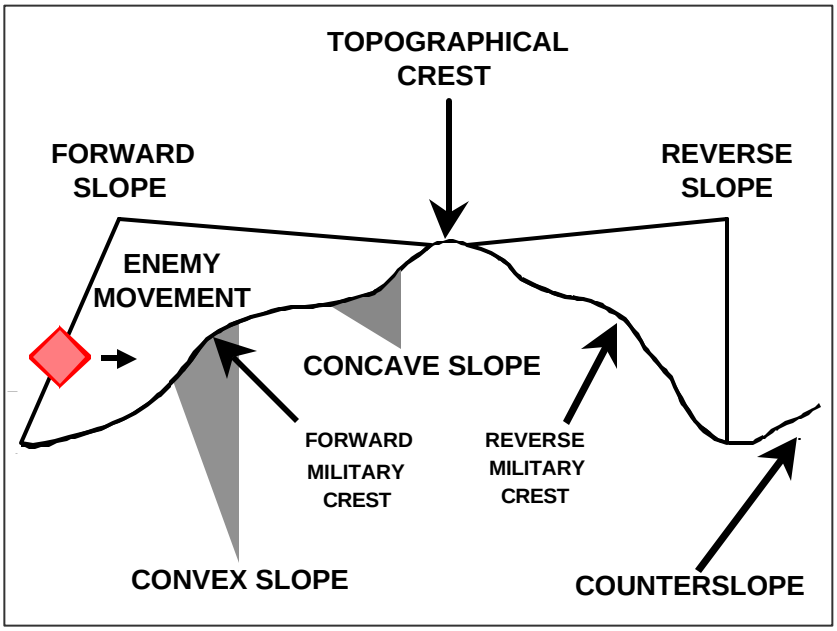

Figure 8-15. A Hill in Cross-Section

8-146. Using the reverse slope defense has several disadvantages:

?? The effective range of direct fire weapons may be limited.

?? Once security elements withdraw, the enemy can advance largely unimpeded until he has crested the high ground in front of the main defensive positions.

?? The enemy has the advantage of attacking downhill.

?? Maintaining observation of the enemy is difficult.

?? In some cases the best locations for obstacles can only be covered from positions on the forward slope.

Organization of Forces

8-147. The commander places his overwatching elements forward of the topographic crest and on the flanks of the position in a valley or depression. Another variation available to the commander is to organize a system of reverse slope defenses firing to the oblique defilade, each covering the other. A commander uses an oblique defilade to protect his defending systems from enemy frontal and flanking fires and from fires coming from above. For example, in Figure 8-16, the two units defending on the reverse slope cannot engage half of the hill to their direct front because of line of sight restrictions caused by small forests, but they can cover each other using oblique defilade.

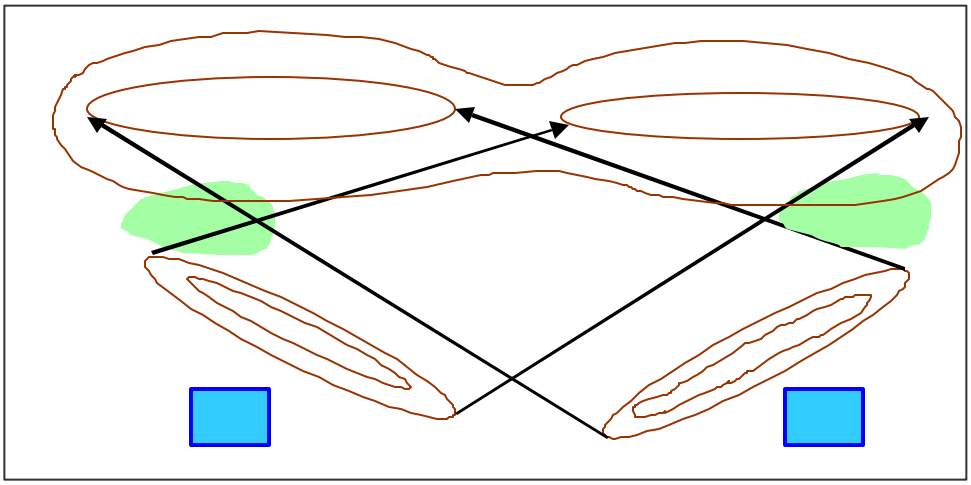

Figure 8-16. Oblique Defilade

8-148. The defending force positions its reconnaissance and security elements where it can observe the forward slope, the terrain forward of it, and other approaches to the defending position. Security elements destroy enemy reconnaissance assets, delay the enemy, disorganize his attack, and deceive him regarding the exact location of the main defense. The commander should position his reconnaissance and surveillance assets in observation posts (OPs) located near or forward of the topographical crest to provide long-range observation of both the enemy's flanks and front. Forces manning these OPs, which can be provided by the commander's reserve, may vary in size from a two-man buddy team to a rifle squad or a multiple combat vehicle section in each position. The commander should employ sufficient forces to provide observation and a security screen for the MBA on ground that should be retained. During darkness and periods of reduced visibility, he should strengthen these detachments in size and numbers to provide security against infiltration or surprise attack. Aggressive night combat patrols and ambushes are an essential part of the security process.

8-149. In order to achieve surprise and limit the enemy's ability to maneuver, the commander organizes the main defensive positions to mass the effects of his concentrated fires on the enemy as he crosses the topographical crest. In a reverse slope defense, the key position denies enemy penetration and supports forward elements by fire. The defending force maintains observation and fires

over the entire forward slope as long as possible to destroy enemy forces, thus preventing the enemy from massing for a final assault. From defensive positions on the reverse slope, the close-in battle builds in intensity. The defending force does not fire its direct fire weapons, which are located throughout the MBA (adjacent slope positions, counterslope positions, or reverse slope positions), until suitable targets appear. At the same time, the force shifts the effects of its indirect fires to those areas forward of the crest and forward military slope.

8-150. When possible other units on complementary terrain should support units in reverse slope positions. This is especially desirable when those supporting units can observe and place fires on the crest and forward slope. In a defense on a counterslope (reverse forward slope), fires must cover the area immediately in front of the reverse slope positions to the topographical crest. The commander organizes defensive positions to permit fires on enemy approaches around and over the crest and on the forward slopes of adjacent terrain features if applicable. The key factors that affect the organization of these areas are mutually supporting covered and concealed positions, numerous existing and reinforcing obstacles, the ability to bring devastating fires from all available weapons onto the crest, and a counterattack force. Depending on the terrain, the most desirable location for the reserve may be on the counterslope or the reverse military crest of the counterslope.

Control Measures

8-151. Defensive control measures introduced in previous chapters apply equally to the reverse slope defense. The commander places his EAs and obstacles on the reverse slope. The topographical crest normally marks the far edge of the EA. He must dominate it by fires to prevent the enemy from successfully engaging the defending force.

Executing a Reverse Slope Defense

8-152. When executing a reverse slope defense, the commander places special emphasis on—

- A fire support plan to prevent the enemy's occupation and use of the topographical crest.
- The proper organization of the forward slope to provide observation across the entire front and security to the main battle positions.
- A counterattack plan that specifies measures necessary to clear the creast or regain it from the enemy.
- Fire support to destroy, disrupt, and attrit enemy forces on the forward slope.

8-153. The commander normally places his final protective fires along the topographical crest and employs them as the enemy reaches the first row of defiladed obstacles. He uses his reserve to counterattack and expel the enemy from the topographical crest if massed indirect fires do not defeat the attack. As always, in a reverse slope defense, the commander can employ his designated reserve to conduct rear area security operations, prepare withdrawal routes, provide flank security, and conduct other actions with the understanding that this increases the time required to reassemble the reserve and prepare it to support the defense.

8-154. The reverse slope defense pursues offensive opportunities through surprise and deceptive actions. It is uniquely suited to infantry forces in mountainous terrain. When conducting a reverse slope defense, surprise results from defending in a manner for which the enemy is unprepared. Once this defense is employed successfully to halt an enemy attack, it may have limited further value because the effect of surprise will be difficult to attain. (For additional information on the use of a reverse slope defense, see FM 3-21.30 and other brigade- and lower-echelon field manuals.)

TRANSITION

8-155. If a defense is successful, the commander anticipates and seeks the opportunity to transition to the offense. If the defense is unsuccessful, the commander needs to transition from a defensive posture into retrograde operations. Transition from one type of operation to another requires mental as well as physical agility on the part of the commanders, staffs, and units involved as well as accurate situational assessment capabilities.

8-156. Deliberate contingency planning for either event greatly assists the transition process and allows the commander to set the conditions necessary for a successful transition. Such planning addresses the need to control the tempo of operations, maintain contact with both enemy and friendly forces, and keep the enemy off balance. It establishes the procedures and priorities by which a unit reconstitutes itself for the next mission. In accordance with the factors of METT-TC, it establishes the required organization of forces and control measures necessary for success.

8-157. Such contingency planning decreases the time needed to adjust the tempo of combat operations when a unit transitions from defensive to offensive operations. It does this by allowing subordinate units to simultaneously plan and prepare for subsequent operations. Preparations typically include resupplying unit basic loads and repositioning or reallocating supporting systems. (Chapters 3-7 address the planning, preparation, and execution of all types of offensive operations.)

8-158. Contingency planning also reduces the amount of time and confusion inherent when a unit is unsuccessful in its defensive efforts and must transition to retrograde operations. It does this through designating units to conduct denial operations and early evacuation of casualties and inoperative equipment. The intent of retrograde operations is to preserve the force as a combat-capable formation until the commander can establish those conditions necessary for a successful defense. (Chapter 11 discusses retrograde operations.)

TRANSITION TO THE OFFENSE

8-159. A defending commander transitioning to the offense anticipates when and where the enemy force will reach its culminating point or require an operational pause before it can continue. At those moments, the combat power ratios most favor the defending force. The enemy force will do everything it can to keep the friendly force from knowing when it is becoming overextended. Indicators that the enemy is approaching this point include—

- ?? Enemy forces begin to transition to the defense—this defense may be by forces in or out of contact with friendly forces.

- ?? Enemy forces suffer heavy losses.
- ?? Enemy forces start to deploy before encountering friendly forces.
- ?? Enemy forces are defeated in most engagements.
- ?? Enemy forces are committed piecemeal in continued enemy attacks.
- ?? Enemy reserve forces are identified among attacking forces.
- ?? Examination of captured or killed enemy soldiers and captured or destroyed enemy equipment and supplies shows that the enemy force is unable to adequately sustain itself.
- ?? A noticeable reduction in the tempo of enemy operations.
- ?? Local counterattacks meet with unexpected success.

8-160. The commander must be careful that he is not the target of enemy information operations designed to tempt him to abandon the advantages of fighting from prepared defensive positions. He ensures that his force has the assets necessary to accomplish its assigned offensive mission.

8-161. In a mobile defense, transitioning to the offense generally follows the striking force's attack. In an area defense, the commander designates a portion of his force to conduct the attack, selecting units based on his concept for achieving his mission. However, he allocates available reserves to this effort.

8-162. As the commander transitions his force from the defense to the offense, he takes the following actions—

- ?? Establishes an LD for his offensive operation. This may require him to conduct local, small-scale attacks to secure terrain necessary for the conduct of the offensive operation or destroy enemy forces that could threaten the larger offensive operation.
- ?? Maintains contact with the enemy, using combinations of his available ISR assets to develop the information required to plan future operations and avoid being deceived by enemy information operations.
- ?? Redeploys his combined arms team based on the probable future employment of each element of that team. For example, fire support assets would tend to move forward so that additional enemy forces and terrain would be encompassed within their range fans.
- ?? Maintains or regains contact with adjacent units in a contiguous AO and ensures that his units remain capable of mutual support in a noncontiguous AO.
- ?? Transitions the engineer effort by shifting the emphasis from countermobility and survivability to mobility.
- ?? Provides his intent for transitioning from the defense to the offense to his commanders and soldiers.

8-163. The commander redeploys his air defense assets to provide coverage of combat forces and other assets necessary to conduct offensive operations. This may require him to change or modify his air defense priorities. For example, his top priority in the defense may have been his long-range sensors and weapons. This may shift to providing priority air defense coverage of his ground combat arms units and combat engineers.

8-164. The commander conducts any required reorganization and resupply concurrently with the above activities. This requires a transition in the logistics

effort, with a shift in emphasis from ensuring a capability to defend from a chosen location to an emphasis on ensuring the force's ability to advance and maneuver. For example, in the defense, the sustainment effort may have focused on the forward stockage of Class IV and V items and the rapid evacuation of combat-damaged systems. In the offense, the sustainment effort may need to focus on providing POL and forward repair of maintenance and combat losses. Transition is often a time in which deferred equipment maintenance can be performed. Additional assets may also be available on a temporary basis for casualty evacuation and medical treatment because of a reduction in the tempo of operations.

8-165. The commander should not wait too long to transition from the defense to the offense as the enemy force approaches its culminating point. Enemy forces will be dispersed, extended in depth, and weakened in condition. At that time, any enemy defensive preparations will be hasty and enemy forces will not be adequately disposed for defense. The commander wants the enemy in this posture when he transitions to the offense. He does not want to give the enemy force time to prepare for the defense. Additionally, the psychological shock on enemy soldiers will be greater if they suddenly find themselves desperately defending on new and often unfavorable terms while the commander's own soldiers will enjoy a psychological boost by going on the offense.

8-166. A commander can use two basic techniques when he transitions to the offense. The first, and generally preferred, technique is to attack using forces not previously committed to the defense. This is because defending MBA units may still be decisively engaged. These attacking forces may come from his reserve or consist of reinforcements. Since these forces have not recently been actively involved in combat, they are more likely to—

- ?? Be at authorized strength levels.
- ?? Enjoy a higher combat system operationally ready rate.
- ?? Have leaders and soldiers who are more likely to be rested and thus capable of prolonged, continuous operations.
- ?? Have a complete basic load of supplies.
- ?? Have the time and energy to plan and prepare for offensive action.
- ?? Be able to maneuver out of physical contact with the enemy.

8-167. A drawback to the use of this technique is the requirement to conduct a forward passage of lines. Additionally, enemy ISR systems are likely to detect the arrival of significant reinforcements.

8-168. Another consideration of using units not in contact occurs when they are operating in noncontiguous AOs. The commander rapidly masses the effects of overwhelming combat power in his decisive operation. This might require him to adopt economy of force measures in some AOs while temporarily abandoning others in order to generate sufficient combat power. (See Chapters 3 and 5 for offensive planning, preparing, and executing considerations.)

8-169. The second technique is to conduct offensive actions using the currently defending forces. This technique generally has the advantage of being more rapidly executed and thus more likely to catch the enemy by surprise. Speed of execution in this technique results from not having to conduct an approach or tactical road march from reserve AAs or, in the case of reinforcements, move

from other AOs and reception, staging, organization, and integration (RSO&I) locations. Speed also results from not having to conduct a forward passage of lines and perform liaison necessary to establish a common operational picture that includes knowledge of the enemy force's patterns of operation. The primary disadvantage of this technique is that the attacking force generally lacks stamina and must be quickly replaced if friendly offensive operations are not to culminate quickly.

8-170. If units in contact participate in the attack, the commander must retain sufficient forces in contact to fix the enemy. He concentrates the attack by reinforcing select subordinate units so they can execute the attack and, if necessary, maintain the existing defense. He can also adjust the defensive boundaries of subordinate units so entire units can withdraw and concentrate for the attack.

TRANSITION TO THE RETROGRADE

8-171. A defending commander transitions from the defense to the retrograde for those reasons outlined in paragraph 11-1. A retrograde usually involves a combination of delay, withdrawal, and retirement operations. These operations may occur simultaneously or sequentially. As in other operations, the commander's concept of operations and intent drive planning for retrograde operations. Each form of retrograde operation has its unique planning considerations, but considerations common to all retrograde operations are risk, the need for synchronization, and rear operations. The planning, preparing, and executing considerations associated with retrograde operations are found in Chapter 11, but a number of key considerations receive special emphasis during the transition from the defense to the retrograde.

8-172. To accomplish the above purposes, the transition to retrograde operations must be accompanied by efforts designed to—

- ?? Reduce the enemy's strength and combat power.
- ?? Provide friendly reinforcements.
- ?? Concentrate forces elsewhere for the attack.
- ?? Prepare stronger defenses elsewhere within the AO.
- ?? Lure or force part or all of the enemy force into areas where it can be counterattacked.

8-173. The complexity and fluidity of retrograde operations and the absolute need to synchronize the entire operation dictates the need for detailed, centralized planning and decentralized execution. Planning for retrograde operations begins with the preparation of plans for the follow-on mission and is driven by the commander's concept of operation and his intent.

8-174. The nature of retrograde operations involves an inherent risk of degrading the defending force's morale. Therefore, maintaining offensive spirit is essential among subordinate leaders and soldiers. Rearward movements may be seen as a defeat, or as an action that could result in isolation of the force. The commander must be well forward and visible. He must ensure that the leaders and soldiers understand the purpose and intent of the operation and their role in accomplishing the mission. Thorough planning, effective control, and aggressive

leadership will minimize risk during the retrograde or enhance the probability of success.

8-175. The commander's ISR requirements dramatically increase as his forces begin their movement to other locations and the combat capabilities of units in contact are subsequently reduced. It is imperative that an integrated ISR collection plan be in place to identify and locate enemy attempts to pursue, outflank, and isolate the defending force as it transitions to the retrograde.

8-176. As the commander transitions to the retrograde, he makes every effort to conserve his combat power. He considers the need to—

- ?? Balance the risk of conserving combat power while remaining disposed to the intent of the defensive mission.
- ?? Disengage and withdraw units with the least tactical mobility and nonessential elements prior to the retrograde of the main body.
- ?? Use mobile forces to cover the retrograde of less mobile forces.
- ?? Use the minimum essential combat power necessary to provide security for the retrograde of the main body.