



ADRP 3-90

OFFENSE AND DEFENSE



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Offense and Defense

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Preface

Army Doctrine Reference Publication (ADRP) 3-90 provides guidance in the form of combat-tested concepts and ideas modified to exploit emerging Army and joint offensive and defensive capabilities. ADRP 3-90 expounds on the doctrine established in Army Doctrine Publication (ADP) 3-90. It provides additional information on the basic concepts and control measures associated with the art and science of tactics. ADRP 3-90 provides the doctrine for the conduct of offensive and defensive tasks, just as ADRP 3-07 provides doctrine for the conduct of stability tasks and Field Manual (FM) 3-28 provides the doctrine for defense support of civil authorities. Offensive and defensive tasks conducted as part of joint operations within the geographic limits of the U.S. and its territories are referred to in joint doctrine as homeland defense. (See Joint Publication [JP] 3-27.)

The principal audience for ADRP 3-90 is all members of the profession of arms. Commanders and staffs of Army headquarters serving as a joint task force or multinational headquarters should also refer to applicable joint or multinational doctrine concerning the range of military operations and joint or multinational forces. Trainers and educators throughout the Army will also use this manual.

ADRP 3-90 focuses on the organization of forces, minimum essential control measures, and general planning, preparation, and execution considerations for each primary offensive and defensive task. It is the common reference for all students of the art and science of tactics, both in the field and the Army school system. The offensive and defensive considerations in this manual apply to small tactical units, such as companies and battalions, even though most of the figures in this manual use the division and the brigade combat team (BCT) echelons to illustrate points in the text. Echelon specific field manuals and Army techniques publications address the specifics of how each tactical echelon employs these tactical concepts.

Commanders, staffs, and subordinates ensure their decisions and actions comply with applicable U.S., international, and, in some cases, host-nation laws and regulations. Commanders at all levels ensure their Soldiers operate in accordance with the law of war and the rules of engagement. (See FM 27-10.)

ADRP 3-90 implements standardization agreement (STANAG) Allied Tactical Publication-3.2.1

ADRP 3-90 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. Terms for which ADRP 3-90 is the proponent publication (the authority) are marked with an asterisk (*) in the glossary. Definitions for which ADRP 3-90 is the proponent publication are boldfaced in the text. For other definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition.

ADRP 3-90 applies to the Active Army, the Army National Guard (ARNG) /the Army National Guard of the United States (ARNGUS) , and the United States Army Reserve (USAR) unless otherwise stated.

The proponent of ADRP 3-90 is the United States Army Combined Arms Center. The preparing agency is the Combined Arms Doctrine Directorate, U.S. Army Combined Arms Center. Send comments and recommendations on a DA Form 2028 (Recommended Changes to Publications and Blank Forms) to Commander, U.S. Army Combined Arms Center and Fort Leavenworth, ATTN: ATZL-MCK-D (ADRP 3-90), 300 McPherson Avenue, Fort Leavenworth, KS 66027-2337; by e-mail to usarmy.leavenworth.mccoe.mbx.cadd-org-mailbox@mail.mil; or submit an electronic DA Form 2028.

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Introduction

To understand ADRP 3-90, the reader must understand the operational art, the principles of war, and the links between the operational and tactical levels of war described in JP 1, JP 3-0, ADP 3-0, and ADRP 3-0. The reader should understand how the stability and defense support of civil authorities tasks described in ADPs and ADRPs 3-07 and 3-28 carry over and affect the conduct of offensive and defensive tasks and vice versa. The reader should understand the operations process (plan, prepare, execute, and assess) and how that process relates to the Army’s military decisionmaking process and troop-leading procedures described in ADP 5-0 and ADRP 5-0. Reviewing these publications assists the reader in understanding ADRP 3-90.

The use of an operational framework assists commanders in articulating their visualization of operations in time, space, purpose, and resources. In ADP 3-0 and ADRP 3-0 the Army established three different frameworks—deep, close, security; decisive, shaping, and sustaining; and main and supporting efforts. To avoid redundancy, this manual uses only the decisive, shaping, and sustaining framework where necessary to provide needed tactical information. This is not meant to imply that the other two frameworks are not equally valid. (See ADRP 3-0 for additional information on the use of the other two frameworks.)

The five chapters of ADRP 3-90 focus on the tactics used to employ available means to win in combat (the offense and the defense) and constitute the Army’s collective view of how it conducts prompt and sustained tactical offensive and defensive actions on land. Those tactics require judgment in application. As such, this manual is not prescriptive, but it is authoritative. ADRP 3-90 provides a common discussion of how commanders from the battalion task force level through the division echelon conduct tactical offensive and defensive tasks and their supporting tactical enabling tasks. The doctrine in this publication focuses on the employment of combined arms in lethal combat operations. These offensive and defensive principles and considerations apply to the conduct of operations, but they cannot be used in isolation. Their application must be tempered by the obligation to protect the civilian population within the area of operations. ADRP 3-90 contains five chapters:

- Chapter 1 establishes the context of the art and science of tactics.
- Chapter 2 defines common tactical concepts and tactical echelons.
- Chapter 3 addresses offensive tasks.
- Chapter 4 addresses defensive tasks.
- Chapter 5 addresses those tactical enabling tasks that are not the subject of their own publication.

Introductory table-1. New Army terms

Term	Remarks
crew	New definition
deep, close, and security operational framework	Introduced in ADP 3-0
fire team	New definition
main and supporting effort operational framework	Introduced in ADP 3-0
platoon	New definition
section	New definition
squad	New definition

Introductory table-2. Rescinded Army terms

Term	Remarks
calculated risk	Replaced by <i>prudent risk</i>
civil affairs activities	Replaced by <i>civil affairs operations</i>
heavy brigade combat team	Replaced by <i>armored brigade combat team</i>
intelligence, surveillance, and reconnaissance (ISR)	Replaced by <i>information collection</i> when talking about these three things collectively. Individually the terms are still doctrinal terms.
light	Replaced by <i>infantry</i> when referring to Army forces
military gamble	Chief of Staff, U.S. Army
motorized	Replaced by <i>Stryker</i> when referring to Army forces

Introductory table-3. Modified Army terms

Term	Remarks
corps	No longer considered a tactical echelon of command
division	New definition for the division echelon
stability-centric/offensive-centric/defensive-centric	The suffix “ <i>centric</i> ” is no longer used when talking about the elements of decisive action
subordinate tasks within the <i>mission command</i> , <i>intelligence</i> , <i>fires</i> , and <i>protection</i> warfighting functions	Subordinate task changes based on ADRP 3-0

The tactics discussed in this manual are only examples of ways to conduct a specific offensive or defensive task. Collectively they provide a set of tools that commanders employ in accordance with the exact tactical situation that they face at any one given time. The tactical situation is defined as the mission variables of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC).

The existing rules of engagement and ethical considerations in a specific situation will control the actual application of the tactics, techniques, and procedures discussed in this manual. Readers of ADRP 3-90 should be aware that rules of engagement are constantly evolving. Criteria for allowing weapon systems employment during the conduct of major operations are significantly different than the criteria used during the conduct of irregular warfare or peace operations. Commanders must understand where they currently are on the range of military operations and be able to switch quickly between different places throughout that range to protect their units and Soldiers while still accomplishing their mission. When conditions change commanders should seek legal guidance concerning currently applicable rules and policies regarding the employment of lethal and nonlethal weapons before directing their employment.

While this manual contains only a few historical references, such examples are important in illustrating the impact of combat on Soldiers and the art of command. Successful commanders, staff officers, and Soldiers of all ranks study military history. This study should include other armies and precedents from classical, medieval, and recent historical periods, in addition to Army recent experiences in Iraq and Afghanistan. Military professionals should also study diplomacy, information, and economics—the other instruments of national power. While history never exactly repeats itself, on many occasions it closely parallels previous developments. In addition, war remains a human endeavor. What motivated or influenced our military

forbearers will probably motivate or influence today's Soldiers to one degree or another, once adjustments are made to account for technological and social changes.

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Chapter 1

Tactics

Through tactics, commanders use combat power to accomplish missions. The tactical-level commander employs combat power to accomplish assigned missions. This chapter addresses the tactical level of war, the art and science of tactics, hasty versus deliberate operations, and solving tactical problems.

THE TACTICAL LEVEL OF WAR

1-1. *Tactics* is the employment and ordered arrangement of forces in relation to each other (CJCSM 5120.01). This is the primary manual for offensive and defensive tasks at the tactical level. It does not provide doctrine for stability or defense support of civil authorities tasks. It is authoritative and provides guidance in the form of combat-tested concepts and ideas modified to take advantage of emerging Army and joint capabilities, focusing on the tactics used to employ available means to win in combat. Those tactics are not prescriptive in nature, and they require judgment in application.

1-2. Tactical operations always require judgment and adaptation to the unique circumstances of a specific situation. Techniques and procedures are established patterns that can be applied repeatedly with little or no judgment in a variety of circumstances. Tactics, techniques, and procedures (TTP) provide commanders and staffs with a set of tools to use in developing the solution to a tactical problem. The solution to any specific problem is a unique combination of these TTP or the creation of new ones based on a critical evaluation of the situation. Commanders determine acceptable solutions by a thorough mastery of doctrine and existing TTP, tempered and honed by experience gained through training and operations and the acceptance of risk. The tactician uses creativity to develop solutions for which the enemy is neither prepared nor able to cope.

1-3. The *tactical level of war* is the level of war at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units or task forces (JP 3-0). Activities at this level focus on the ordered arrangement and maneuver of combat elements in relation to each other and to the enemy to achieve combat objectives. It is important to understand tactics within the context of the levels of war. The strategic and operational levels provide the context for tactical operations. Without this context, tactical operations are reduced to a series of disconnected and unfocused actions. Strategic and operational success is a measure of how one or more battles link to winning a major operation or campaign. In turn, tactical success is a measure of how one or more engagements links to winning a battle.

1-4. **A battle consists of a set of related engagements that lasts longer and involves larger forces than an engagement.** Battles can affect the course of a campaign or major operation. A battle occurs when a division, corps, or army commander fights for one or more significant objectives. Battles are usually operationally significant, if not operationally decisive.

1-5. An *engagement* is a tactical conflict, usually between opposing, lower echelon maneuver forces (JP 3-0). Engagements are typically conducted at brigade level and below. They are usually short, executed in terms of minutes, hours, or days. Engagements can result from one side's deliberate offensive movement against an opponent or from a chance encounter between two opponents, such as a meeting engagement.

1-6. Levels of command, size of units, types of equipment, or types of forces or components are not associated with a particular level of war. National assets, space-based capabilities such as intelligence and communications satellites, previously considered principally in a strategic context, are an important adjunct to tactical operations. Commanders consider actions strategic, operational, or tactical based on their effect or contribution to achieving strategic, operational, or tactical objectives.

1-7. Advances in technology, information-age media reporting, and the compression of time-space relationships contribute to the growing interrelationships between the levels of war. The levels of war help commanders visualize a logical flow of operations, allocate resources, and assign tasks to the appropriate command. However, commanders at every level must be aware that in a world of constant, immediate communications, any single event may impact any or all three levels of war.

THE ART AND SCIENCE OF TACTICS

1-8. Military professionals at all echelons must understand and master the science and the art of tactics—two distinctly different yet inseparable concepts—to solve the problems that will face them on the battlefield. A tactical problem occurs when the mission variables of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) of the desired tactical situation differ from those currently existing.

THE ART OF TACTICS

1-9. **The *art of tactics* consists of three interrelated aspects: the creative and flexible array of means to accomplish assigned missions, decisionmaking under conditions of uncertainty when faced with a thinking and adaptive enemy, and understanding the effects of combat on Soldiers.** An art, as opposed to a science, requires exercising intuitive faculties that cannot be learned solely by study. Military professionals must temper their study and evolve their skill through a variety of relevant, practical experiences. The more experience a military professional gains from practice under a variety of circumstances, the greater is that individual's mastery of the art of tactics.

1-10. Military professionals invoke the art of tactics to solve tactical problems within the commander's intent by choosing from interrelated options, including—

- Types and forms of operations, forms of maneuver, and tactical mission tasks.
- Task organization of available forces, to include allocating scarce resources.
- Arrangement and choice of control measures.
- Tempo of the operation.
- Risks the commander is willing to take.

1-11. These options represent a starting point for the military professional to create a unique solution to a specific tactical problem. A tactical problem occurs when the desired end state differs from that currently existing as expressed in terms of the mission variables of METT-TC. Each decision represents a choice among a range of options; each balances competing demands requiring judgment at every turn. While there may be checklists for techniques and procedures, there are no checklists for solving tactical problems. Tacticians must not look for a checklist; instead, they must use their experience and creativity to out think their enemies.

1-12. The first aspect of the art of tactics is the creative and flexible application of the means available to the commander to seize the initiative from the enemy and to retain it. These means include doctrine, tactics, techniques, procedures, training, organizations, materiel, and Soldiers. The military professional must understand how to train and employ forces simultaneously conducting offensive, defensive, and stability or defense support of civil authorities tasks. The mission variables of METT-TC have infinite permutations that always form a new tactical situation. They never produce exactly the same situation; thus, there can be no checklists that adequately address each unique situation. Because the enemy changes and adapts to friendly moves during the planning, preparation, and execution of an operation, there is no guarantee that a tactic which worked in one situation will work again. Each tactical problem is unique and must be solved on its own merits.

1-13. The second aspect of the art of tactics is decisionmaking under conditions of uncertainty in a time-constrained environment and demonstrated by the clash of opposing wills—a violent struggle between two hostile, thinking, and independent opposing commanders with irreconcilable goals. Commanders want to impose their will on their opponent, defeat their opponents' plans, and destroy their opponents' forces. Combat consists of the interplay between these two opposing commanders, with each commander seeking to accomplish the assigned mission while preventing the other from doing the same. Every commander

needs a high degree of creativity and clarity of thought to outwit a willing and able opponent. Commanders must quickly apply their judgment to a less than omniscient common operational picture to understand the implications and opportunities afforded by the situation. Commanders always use the most current intelligence in order to facilitate their visualization and understanding of the enemy, environment, and civil considerations. Commanders use their mission command systems to transmit decisions and maintain a common understanding with those individuals and units required to engage and destroy the enemy force.

1-14. The effect of combat on Soldiers is the third and final aspect of the art of tactics. It is what differentiates actual combat from the problems encountered during training and in a classroom. Combat is one of the most complex human activities, characterized by violent death, friction, uncertainty, and chance. Success depends as much on this human aspect as it does on numerical and technological superiority.

1-15. Military professionals cannot ignore the human aspect of tactics. They seek to recognize and exploit indicators of fear and weakness in their enemies, and to defeat their enemies' will, since Soldiers remain key generators of combat power. More than any other human activity, continuous combat operations against an intelligent enemy take a toll on Soldiers, severely straining their physical and mental stamina. This creates in Soldiers the tangible and intangible effects of courage, fear, combat experience, exhaustion, isolation, confidence, thirst, and anger. If left unchecked, these effects can result in decreased vigilance, slowed perception, inability to concentrate, communication difficulties, and an inability to accomplish manual tasks.

1-16. Leaders at all echelons must be alert to indicators of fatigue, fear, lapses in discipline or ethical standards, and reduced morale in friendly troops and enemy soldiers. They must work to counteract the effects on the friendly force while taking measures to enhance these effects on the enemy. When the friendly force has the initiative, it can force the enemy to conduct continuous operations to react to friendly actions. Then the friendly force can exploit the negative effects of those continuous operations on the enemy which can lead to the enemy's collapse. Commanders and staffs must understand how the negative effects of combat affect human endurance and factor those effects into their plans. This is the subtle difference between pushing Soldiers beyond their limits to exploit success versus resting them to prevent the collapse of unit cohesion.

THE SCIENCE OF TACTICS

1-17. **The science of tactics encompasses the understanding of those military aspects of tactics—capabilities, techniques, and procedures—that can be measured and codified.** The science of tactics includes the physical capabilities of friendly and enemy organizations and systems, such as determining how long it takes a given organization, such as a brigade, to move a certain distance. It also includes techniques and procedures used to accomplish specific tasks, such as the tactical terms and control graphics that compose the language of tactics. While not easy, the science of tactics is fairly straightforward. Much of what is contained in subordinate publications to this manual is the science of tactics—techniques and procedures for employing the various elements of the combined arms team to create or produce greater effects. **The combined arms team is two or more arms mutually supporting one another, usually consisting of a mixture of infantry, armor, aviation, field artillery, air defense artillery, and engineers.**

1-18. Mastery of the science of tactics is necessary for military professionals to understand the physical and procedural constraints under which units must work. These constraints include the effects of terrain, time, space, and weather on friendly and enemy forces. However—because combat is an intensely human activity—the solution to tactical problems cannot be reduced to a formula. This realization necessitates the study of the art of tactics.

HASTY VERSUS DELIBERATE OPERATIONS

1-19. **A hasty operation is an operation in which a commander directs immediately available forces, using fragmentary orders, to perform activities with minimal preparation, trading planning and preparation time for speed of execution.** The 9th Armored Division's seizure of the bridge at Remagen in March 1945 illustrates a hasty operation conducted with the forces immediately available. **A deliberate**

operation is an operation in which the tactical situation allows the development and coordination of detailed plans, including multiple branches and sequels. Forces are task organized specifically for an operation to provide a fully synchronized combined arms team. That combined arms team conducts extensive rehearsals while also conducting shaping operations to set the conditions for the conduct of the force's decisive operation. The 1st Infantry Division's breaching operation during the opening hours of Operation Desert Storm in 1991 illustrates a deliberate operation.

1-20. Most operations lie somewhere along a continuum between these two extremes. Ongoing improvements in mission command systems continue to assist in the development of a common operational picture of friendly and enemy forces while facilitating decisionmaking and communicating decisions to friendly forces. These improvements can help diminish the distinction between hasty and deliberate operations; they cannot make that distinction irrelevant.

CHOICES AND TRADEOFFS

1-21. Determining the right choice involves balancing several competing factors. The decision to conduct a hasty or deliberate operation is based on the commander's current knowledge of the enemy situation and assessment of whether the assets available (to include time) and the means to coordinate and synchronize those assets are adequate to accomplish the mission. If they are not, the commander takes additional time to plan and prepare for the operation or bring additional forces to bear on the problem. The commander makes that choice in an environment of uncertainty, which always entails some risk.

1-22. The commander may have to act based only on available combat information in a time-constrained environment. *Combat information* is unevaluated data, gathered by or provided directly to the tactical commander which, due to its highly perishable nature or the criticality of the situation, cannot be processed into tactical intelligence in time to satisfy the user's tactical intelligence requirements (JP 1-02). The commander must understand the inherent risk of acting only on combat information, since it is vulnerable to enemy deception operations and can be misinterpreted. The unit intelligence staff helps the commander assign a level of confidence to combat information used in decisionmaking.

1-23. Uncertainty and risk are inherent in tactical operations and cannot be eliminated. A commander cannot be successful without the capability of acting under conditions of uncertainty while balancing various risks and taking advantage of opportunities. Although the commander strives to maximize knowledge of available forces, the terrain and weather, civil considerations, and the enemy, a lack of information cannot paralyze the decisionmaking process. The more information known about the mission variables of METT-TC, the better able the commander is to make an assessment. Less information means that the commander has a greater risk of making a poor decision for the specific situation. A commander never has perfect information, but knowing when there is enough information to make a decision within the higher commander's intent and constraints is part of the art of tactics and is a critical skill for a commander.

1-24. The commander should take the minimum time necessary in planning and preparing to ensure a reasonable chance of success. Reduced coordination at the start of the operation results in less than optimum combat power brought to bear on the enemy, but often allows for increased speed and momentum while possibly achieving surprise. The commander must balance the effects of reduced coordination against the risk that the effects of increased coordination will not match the enemy's improved posture over time. The more time the commander takes to prepare for the operation, including improving situational understanding, the more time the enemy has to prepare and move additional units within supporting range or distance. If the enemy can improve its dispositions faster than the friendly force can, the delays in execution decrease the commander's chances of success. Additionally, commanders seek to provide subordinates the maximum time possible to conduct their own planning and preparations.

1-25. It is normally better to err on the side of speed, audacity, and momentum than on the side of caution when conducting military operations. Bold decisions give the best promise of success, but one must distinguish between taking a prudent risk and a gamble. *Prudent risk* is a deliberate exposure to potential injury or loss when the commander judges the outcome in terms of mission accomplishment as worth the cost (ADP 6-0). The willingness to take prudent risks requires military judgment to reduce risk by foresight and careful planning and to determine whether the risk is worth taking to grasp fleeting opportunities.

Major General Wood's decision to advance east toward the German border with his 4th Armored Division after the breakout from the Normandy beachhead is an example of a justifiable acceptance of prudent risk.

1-26. The commander can be less deliberate in planning and preparing for an operation when facing a clearly less capable and prepared enemy. In these circumstances, the commander can forego detailed planning, extensive rehearsals, and significant changes in task organization. For example, an attacking battalion task force encountering enemy security elements just moving into position can conduct actions on contact to immediately destroy these elements without the loss of momentum. **Actions on contact are a series of combat actions, often conducted nearly simultaneously, taken on contact with the enemy to develop the situation.** Against a larger and more prepared enemy, the commander needs more preparation time and a larger force to succeed. If the commander determines that the enemy cannot be defeated with the forces immediately at hand, the commander must determine what additional measures to take to be successful.

1-27. This does not imply that a commander conducting a hasty operation foregoes the advantages provided by a combined arms team. A commander who chooses to conduct hasty operations must mentally synchronize the employment of available forces before issuing fragmentary orders. This includes using tangible and intangible factors, such as subordinate training levels and experience, the commander's own experience, perception of how the enemy will react, understanding of time-distance factors, and knowledge of the strengths of each subordinate and supporting unit to achieve the required degree of synchronization.

RISK REDUCTION

1-28. Because uncertainty exists in all military operations, every military decision contains risk. The commander exercises tactical art when deciding how much risk to accept. As shown in figure 1-1, the commander has several techniques available to reduce the risk associated with a lack of information and intelligence in a specific operation. Some of these techniques for reducing risk take resources from the decisive operation, which reduces the concentration of effects at the decisive point.

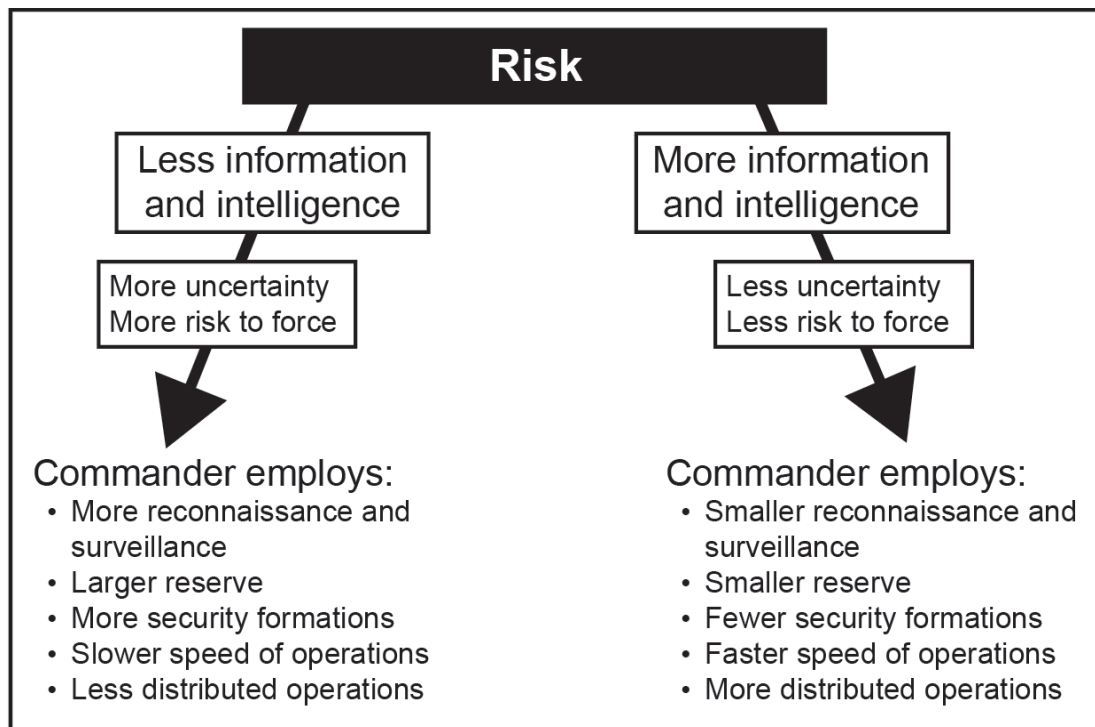


Figure 1-1. Risk reduction factors

1-29. An important factor in reducing risk is how much intelligence is available about the enemy. If the commander decides to execute a hasty operation based on limited intelligence, there is the risk of

conducting an uncoordinated operation against an enemy about which little is known. Moreover, available forces may not be strong enough to accomplish their mission with minimum casualties. This could lead to piecemeal commitment and potential defeat in detail. The commander must balance this option against the risk of waiting to attack, which allows the enemy time to reinforce or conduct additional defensive preparations.

1-30. When higher headquarters determines the time to start an operation, or in a defense when the enemy initiates the operation, the commander has little flexibility. In these situations the commander must use all the time available to conduct planning and preparation. While the military decisionmaking process tasks used in a time-constrained environment are the same as in the full process, many are done mentally by the commander or with less staff involvement than when more time is available. Each commander decides how to shorten the process. A commander may use the complete process to develop the plan, while a subordinate headquarters may abbreviate the process.

1-31. The commander can reduce the risk associated with any situation by increasing knowledge of the terrain and friendly, neutral, and enemy forces. The commander has a greater risk of making a poor decision, if that individual's situational understanding is incomplete or faulty. If the commander lacks sufficient information to make an informed choice, the first priority must be to gain the required information to support decisionmaking, while at the same time taking precautions to protect friendly forces from surprise. During an unexpected encounter with the enemy, often an acceptable way to gain that intelligence is to conduct a hasty attack to determine the size and disposition of the enemy force. The commander adapts the intelligence warfighting function to the existing situation and picks the appropriate tools to answer critical information requirements. For example, the commander can retask available reconnaissance, surveillance, and intelligence assets or increase the resources devoted to the information collection effort.

1-32. A commander—supported by a mission command system that can access accurate, real-time information—takes advantage of greatly improved knowledge of the enemy and friendly situations that facilitates the employment of precision munitions, allows the conduct of decisive maneuver at extended ranges, and ensures the provision of responsive and flexible support of forces. The integration of advanced information technologies, highly capable leaders, and agile organizational systems reduces risk and facilitates the simultaneous conduct of the elements of decisive action.

1-33. Risk reduction does not always mean increasing knowledge of the enemy at the expense of time. A commander can partially compensate for a lack of intelligence by being flexible in troop dispositions through an increase in the depth of the security area, the size and number of security units, and the size of the reserve. The commander's choices of combat and movement formations provide the versatility to allow for initial enemy contact with the smallest possible friendly force. This allows the greatest flexibility in meeting unforeseen enemy dispositions. Another way to compensate for increased risk is to allow time and resources for subordinate elements to develop the situation.

There are eight forms of contact: visual; direct; indirect; non-hostile; obstacles; aircraft; chemical, biological, radiological, and nuclear (CBRN); and electronic warfare. The conduct of tactical offensive and defensive tasks most often involves conduct using the visual, direct, and indirect forms.

1-34. Friendly force agility is another measure to help mitigate risk in tactical operations. Agility is the ability of friendly forces to react faster than the enemy. It is as much a mental as a physical quality. Greater quickness permits the rapid concentration of friendly strength against enemy vulnerabilities.

1-35. The commander has the option to redirect the efforts of forces previously used to reduce the risk toward strengthening the force's decisive operation or main effort as more information becomes available. In any operation, the relationship between information, uncertainty, risk, size of reserves and security forces, and the disposition of the main body may change frequently. **(The *main body* is the principal part of a tactical command or formation. It does not include detached elements of the command, such as advance guards, flank guards, and covering forces.)** The commander must continually weigh this balance and make adjustments as needed.

1-36. These adjustments can create problems. Too many changes or changes made too rapidly in task organization, mission, and priorities can have negative effects on the operations process. For example, if a

commander changes task organization too frequently, the force fails to develop the flexibility provided by teamwork. On the other hand, if the commander fails to change the task organization when dictated by circumstances, the force lacks flexibility to adapt to those changing circumstances. It is then unable to react effectively to enemy moves or act with the concentration of effects that lead to mission success.

SOLVING TACTICAL PROBLEMS

1-37. Success in tactical problem solving results from the aggressive, intelligent, and decisive use of combat power in an environment of uncertainty, disorder, violence, and danger. A commander wins by maintaining the initiative and forcing the enemy to react to friendly operations, initiating combat on the commander's own terms—at a time and place of the commander's choosing. A commander should never surrender the initiative once it is gained. The commander should build momentum quickly to win decisively through the simultaneous rapid application of available combat power while operating inside the enemy's decisionmaking cycle, and mastering the transitions between the defense to the offensive and vice versa. This allows the commander to maximize friendly and minimize enemy combat power by preventing the enemy from fighting as a combined arms force.

1-38. Offensive action is almost always the key to achieving decisive results. Commanders conduct the offense to achieve assigned missions—destroying enemy forces or seizing terrain—that cumulatively produce the effects required by the operational commander. Circumstances may require defending; however, tactical success normally requires shifting to the offense as soon as possible. The offense ends when the forces conducting it accomplish their missions, reach their limits of advance, or approach culmination. Those forces then consolidate, resume the attack, or prepare for other operations.

1-39. Commanders initiate combat on their own terms to gain important advantages. This allows the massing of the effects of combat power against selected inferior and isolated enemy units in vulnerable locations. Possession of the initiative allows a commander to continually seek vulnerable spots and shift the decisive operation when opportunities occur. A commander seizes, retains, and exploits the initiative by—

- Maneuvering more rapidly than the enemy to gain positional advantage (the place where the effects of fires are most destructive) over the enemy.
- Employing firepower to facilitate and exploit positional advantage.
- Sustaining subordinate forces before, during, and after the engagement with the enemy.
- Achieving and maintaining a better understanding of the tactical situation than that possessed by enemy decision makers.
- Planning beyond the initial operation and anticipating possible events.

The commander tenaciously and aggressively presses the battle. The commander accepts risk while leading Soldiers and pushing systems to their limits.

1-40. Commanders seek ways to build momentum quickly by seizing the initiative and executing operations at a high tempo. Momentum complements and helps to retain the initiative. Concentrating combat power at the decisive place and time overwhelms an enemy and gains control of the situation. Rapid maneuver to place the enemy in a disadvantageous position also builds momentum. Momentum allows the commander to create opportunities to engage the enemy from unexpected directions with unanticipated capabilities. Having seized the initiative, the commander continues to control the relative momentum by taking action to maintain focus and pressure, controlling the tempo of operations, and creating and exploiting opportunities, while always assessing the situation and taking prudent risks.

1-41. The mission command system assists the rapid building of momentum by allowing the commander to see and understand the situation so quickly that subordinate forces can act before the enemy forces can react to the initial situation. The operations process focuses on executing rather than planning. Modern information systems allow compressed planning and effective incremental adjustments to the plan during execution. This allows the commander's forces to adapt more quickly to emerging threats and opportunities, as they are identified. Units whose commanders can make and implement decisions faster, even to a small degree, gain an accruing advantage that becomes significant over time. Making decisions quickly—even with incomplete information—is crucial. Commanders and staffs at higher echelons require

frequently updated, relevant information from lower echelons, particularly in regards to friendly and enemy force dispositions and activities.

1-42. Commanders choose from a number of tactical options to create the solution to the tactical problem facing them. (Chapter 2 lists these options as those primary tasks subordinate to each applicable element of decisive action.) Although commanders solve specific tactical problems facing them by following the general principles outlined in this manual, there is no single, doctrinally correct, procedurally derived solution to any problem. The commander who employs the more appropriate tactics, given the existing situation, has a distinct advantage over an opponent, even if their forces have equal combat power.

1-43. The commander uses a mastery of the art and science of tactics, an understanding of the situation, and sound judgment to create unique solutions appropriate to the mission and the other specific mission variables of METT-TC. There are usually several solutions that might work, although some will be more effective than others. The commander seeks a solution that defeats the enemy in the time available at the least cost in blood and materiel. The solution should be decisive and posture the unit for future missions, while providing the greatest flexibility for unexpected enemy actions or reactions. The solution must be in accordance with the higher commander's intent. A thorough understanding of the enemy greatly assists the commander in the development of workable solutions. Commander's visualization is the doctrinal term for this process. (ADRP 6-0 describes commander's visualization.)

1-44. The commander should train to be able to cut to the heart of a situation, recognize its important elements, and base decisions on those important elements as a part of mastering the Army profession. Commanders develop this capability after years of education in military schools, self-study, and practical training experiences, which eventually develop the intuitive faculties required to solve tactical problems. Commanders rarely get the opportunity to practice the science and art of tactics during major combat operations. They more often get the chance to practice the science and art of tactics during the conduct of irregular warfare operations through repeated deployments in different positions and ranks. However, commanders must grasp ongoing changes in the operational environment. Repeated deployments to the same operational area often require the revision of previously successful tactics (and related techniques and procedures) to stay ahead of the enemy. Commanders do not return to the tactical practices of their last deployment without understanding the impact of changes in their operational environment.

1-45. Doctrine requires human judgment when applied to a specific situation. In choosing a solution to a tactical problem, applicable laws and regulations, the mission, the laws of physics, human behavior, and sustainment realities constrain commanders, but standardized tactics, techniques, and procedures codified in Army doctrine as best practices do not. The true test of the solution to any military problem is not whether it uses the specific tactics, techniques, or procedures contained in this manual and subordinate manuals, but whether the tactics, techniques, and procedures used were appropriate to the situation. Tactical proficiency is not defined by mastery of written doctrine, but by the ability to employ available means to win battles and engagements. A solution may not match any previous doctrinal example; however, the language used to communicate that concept must be technically precise and doctrinally consistent, using commonly understood and accepted doctrinal terms and concepts.

1-46. Transitions between the different elements and primary tasks of operations are difficult and, during execution, may create unexpected opportunities for Army or enemy forces. Commanders and their supporting staffs must quickly recognize such opportunities, developing transitions as branches or sequels during the planning process and act on them immediately as they occur. A transition from an emphasis on one element of operations to another is a complex operational consideration.

1-47. Tactical victory occurs when the opposing enemy force can no longer achieve its tactical objectives or prevent friendly forces from accomplishing their mission. That is the end goal of all offensive and defensive tasks. Decisive tactical victory occurs when the enemy no longer has the means to oppose the friendly force. It also occurs when the enemy admits defeat and agrees to a negotiated end of hostilities. Historically, a rapid tactical victory results in fewer friendly casualties and reduced resource expenditures. However, the commander avoids gambling subordinate forces and losing combined arms synchronization in search of rapid victory.

1-48. In closing, solutions to tactical problems are a collective effort. Success results from the commander's plan and the ability of subordinates to execute it. Commanders must have full confidence in

their subordinates' mastery of the art and science of tactics and in their ability to execute the chosen solution.

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Chapter 2

Common Tactical Concepts and Echelons

The tactician must understand the common tactical concepts and definitions used by the military profession in the conduct of offensive and defensive tasks. This chapter discusses joint interdependence, principles of joint operations, and operational and mission variables. It introduces the Army doctrinal hierarchy that forms the framework by which this publication and its subordinate manuals are organized. The concepts and terms in this chapter are common to most combat operations.

JOINT INTERDEPENDENCE

2-1. The Army conducts tactical offensive and defensive tasks as members of interdependent joint forces. This joint interdependence is the purposeful reliance by one Service's forces on another Service's capabilities to maximize the complementary and reinforcing effects of both. Joint capabilities make Army forces more effective than they would be otherwise. (See JP 1, JP 3-0, and ADP 3-0 for additional information on joint interdependence.) Army operations involve joint interdependence. They are also likely to have inter-agency and multinational aspects. (See JP 3-08, and FM 3-16.)

PRINCIPLES OF JOINT OPERATIONS

2-2. The twelve principles of joint operations defined in JP 3-0 provide general guidance for conducting military operations. They are fundamental truths governing all operations. The principles are built on the enduring bedrock of Army doctrine. First published in America in 1923 as general principles in *Field Service Regulations United States Army*, the first nine, as principles of war, have stood the tests of time, analysis, experimentation, and practice. They are not a checklist and their degree of application varies with the situation. Blind adherence to these principles does not guarantee success, but each deviation may increase the risk of failure. The principles of joint operations lend rigor and focus to the purely creative aspects of tactics and provide a crucial link between pure theory and actual application.

Principles of Joint Operations

- Objective
- Offensive
- Mass
- Maneuver
- Economy of force
- Unity of command
- Security
- Surprise
- Simplicity
- Restraint
- Perseverance
- Legitimacy

OPERATIONAL VARIABLES

2-3. Army planners describe the conditions of an operational environment in terms of operational variables. Operational variables are those aspects of the operational environment, both military and nonmilitary, that may differ from one operational area to another and affect operations. Operational variables describe not only the military aspects of an operational environment but also the population's influence on it. Army planners analyze an operational environment in terms of eight interrelated operational variables: political, military, economic, social, information, infrastructure, physical environment, and time (PMESII-PT). As soon as a commander and staff have an indication of where their unit will probably deploy, they begin analyzing the operational variables associated with that location. They continue to refine and update that analysis even after receiving a specific mission and throughout the course of the ensuing operation.

Operational Variables

- Political
- Military
- Economic
- Social
- Information
- Infrastructure
- Physical environment
- Time

MISSION VARIABLES

2-4. Upon receipt of a warning order or mission, Army leaders filter relevant information categorized by the operational variables into the categories of the mission variables used during mission analysis. They use the mission variables to refine their understanding of the situation. Incorporating the analysis of the operational variables with the mission variables of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) ensures Army leaders consider the best available relevant information about conditions that pertain to the mission.

Mission Variables
Mission
Enemy
Terrain and weather
Troops and support available
Time available
Civil considerations

2-5. The mission variables of METT-TC describe the unique situation in which commanders and staffs execute the art and science of tactics. An analysis of these mission variables is critical during the military decisionmaking process. Their impact on an operation will differ, but each must be considered during the commander's visualization process. For example, terrain and weather effects on movement rates and fuel consumption are quantifiable and, therefore, part of the science of war. Terrain and weather effects on soldier morale are not totally quantifiable and are part of the art of war.

THE DOCTRINAL HIERARCHY

2-6. Figure 2-1 shows the Army's tactical doctrinal taxonomy for the four elements of decisive action and their subordinate tasks. While an operation's predominant characteristic is offense, defense, stability, or defense support of civil authorities, different units involved in that operation may be conducting different types and subordinate forms of operations, and often transition rapidly from one element or subordinate task to another. The commander rapidly shifts emphasis from one task to another to continually keep the enemy off balance, while positioning available forces for maximum effectiveness. Flexibility in transitioning contributes to a successful operation. Commanders and staffs use their situational understanding to choose the right combinations of combined arms to place the enemy at the maximum disadvantage.

2-7. The commander conducts tactical enabling tasks to assist the planning, preparation, and execution of any of the four elements of decisive action. Tactical enabling tasks are never decisive operations in the context of the conduct of offensive and defensive tasks. (They are also never decisive during the conduct of stability tasks.) The commander uses tactical shaping tasks to assist in conducting combat operations with reduced risk.

2-8. The tactical mission tasks listed at the bottom of figure 2-1 describe actions by friendly forces or effects on enemy forces that have specific military definitions that are not addressed in this publication. (They are addressed in FM 3-90.) These tactical mission tasks have specific military definitions different from those found in a dictionary.

2-9. This hierarchy does not describe discrete, mutually exclusive operations. All tactical missions can contain elements of offensive, defensive, and stability or defense support of civil authorities tasks. For example, an attacking commander may have one subordinate conducting an envelopment, with another subordinate conducting a frontal attack to fix the enemy. The enveloping force usually attacks once the direct-pressure force makes a movement to contact while repeatedly attacking to keep pressure on the fleeing enemy. The encircling force uses an envelopment to conduct a series of attacks to destroy enemy forces in its path on the way to its blocking position. Once it occupies the blocking position, the unit may transition to a defense as it blocks the retreat of the fleeing enemy force. During the conduct of all tasks, the force meets its legal responsibilities to the civilian inhabitants of the area through which it conducts its operations.

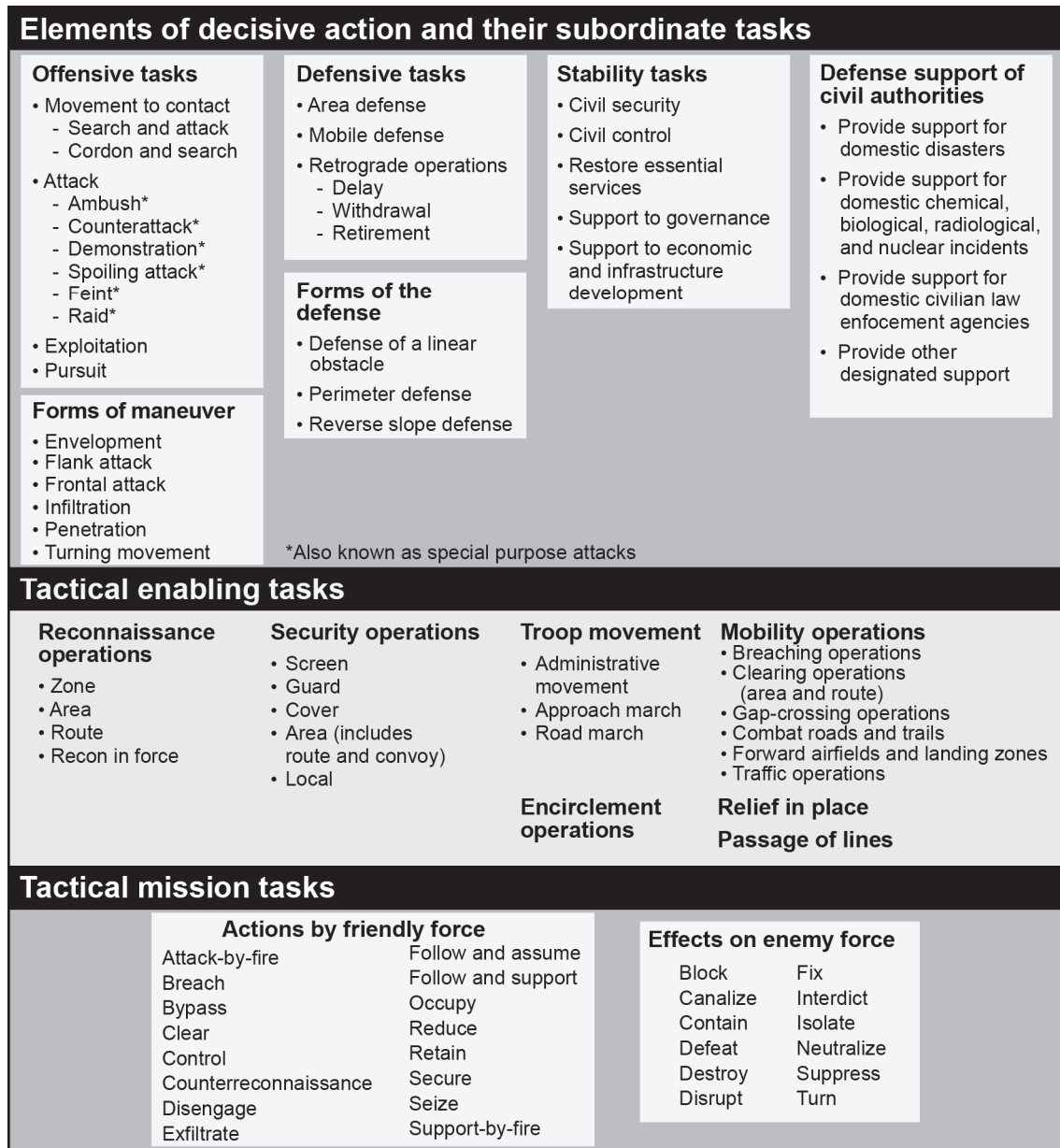


Figure 2-1. Army tactical doctrinal taxonomy

WARFIGHTING FUNCTIONS

2-10. ADRP 3-0 defines a *warfighting function* as a group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions and training objectives. The 2008 edition of FM 3-0 first established six warfighting functions for the Army that linked to the joint functions established in JP 3-0. The Army’s definitions of each of these six warfighting functions are—

- The *mission command warfighting function* is the related tasks and systems that develop and integrate those activities enabling a commander to balance the art of command and the science of control in order to integrate the other warfighting functions (ADRP 3-0).
- The *movement and maneuver warfighting function* is the related tasks and systems that move and employ forces to achieve a position of relative advantage over the enemy and other threats (ADRP 3-0). Direct fire and close combat are inherent in maneuver.
- The *intelligence warfighting function* is the related tasks and systems that facilitate understanding the enemy, terrain, and civil considerations (ADRP 3-0).
- The *fires warfighting function* is the related tasks and systems that provide collective and coordinated use of Army indirect fires, air and missile defense, and joint fires through the targeting process (ADRP 3-0).
- The *sustainment warfighting function* is the related tasks and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance (ADRP 3-0).
- The *protection warfighting function* is the related tasks and systems that preserve the force so the commander can apply maximum combat power to accomplish the mission (ADRP 3-0).

Commanders use these six warfighting functions to provide direction to subordinates.

DEFEAT MECHANISMS

2-11. A *defeat mechanism* is a method through which friendly forces accomplish their mission against enemy opposition (ADRP 3-0). Tactical forces at all echelons use combinations of the four defeat mechanisms: destroy, dislocate, disintegrate, and isolate. There are also stability mechanisms used in the conduct of stability tasks. (See ADRP 3-0 for a discussion of both defeat and stability mechanisms.)

BASIC TACTICAL CONCEPTS

2-12. Paragraphs 2-13 through 2-57 contain basic tactical concepts common to both offensive and defensive actions. They are listed in alphabetical order, not in order of importance. These concepts, along with the principles of joint operations, mission variables of METT-TC, elements of operational design, warfighting functions, running estimates, input from other commanders, and the commander's own experience and judgment allow the commander to visualize the conduct of operations.

Basic Tactical Concepts

Area of operations
Combined arms
Concept of operations
Decisive engagement
Defeat in detail
Flanks
Maneuver
Operation
Operational frameworks
Piecemeal commitment
Reconstitution
Reserve
Rules of engagement
Tactical mobility
Uncommitted forces

AREA OF OPERATIONS

2-13. An *area of operations* is an operational area defined by the joint force commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces (JP 3-0). The joint force land component commander, Army Service component command commander, or Army forces (ARFOR) commander will in turn assign subordinates their own AOs. Those subordinates will further assign their subordinates AOs down to the battalion or company level based on the mission variables of METT-TC. A unit assigned an AO, although it is the owning unit, may not change control measures imposed by a higher headquarters within its AO. However, it may establish additional control measures to coordinate and synchronize its operations.

An *avenue of approach* is the air or ground route leading to an objective (or key terrain in its path) that an attacking force can use.

2-14. Assigning an AO to a subordinate headquarters maximizes decentralized execution by empowering subordinate commanders to use their own initiative to accomplish their assigned missions. This encourages the use of mission command. (See ADRP 6-0 for a discussion of mission command.) At the same time, it adds the responsibilities listed in paragraph 2-17 to

the lower headquarters. Conversely, failure to designate subordinate AOs maximizes centralized execution and limits subordinates' tactical options. The latter choice should be made only when mandated by the mission variables of METT-TC. For example, a brigade combat team (BCT) commander responsible for blocking an enemy advance along a single avenue of approach may assign subordinate battalions battle positions to support a BCT engagement area instead of subdividing the BCT AO and the avenue of approach into battalion AOs.

2-15. A higher headquarters designates an AO using boundaries. A commander normally assigns AOs to subordinate maneuver units, such as BCTs, combined arms battalions, or maneuver enhancement brigades. However, the commander may also assign an AO to subordinate functional and multifunctional support or sustainment units even though owning an AO is not a task for which these types of units are designed. For example, they may lack joint enablers, such as a tactical air control party. (This non-doctrinal mission for these later types of units is most likely to occur during the conduct of the irregular warfare.) An assigned AO both restricts and facilitates the movement of units and use of fires. It restricts units not assigned responsibility for the AO from moving through the AO. It also restricts outside units from firing into the AO or allowing the effects of their fires to affect the AO. Both of these restrictions can be relaxed through coordination with the owning unit. An assigned AO facilitates the movement and fires of the unit assigned responsibility for, or owning, it. The assigned AO must encompass enough terrain for the commander to accomplish the mission and protect friendly forces.

2-16. Commanders consider a unit's area of influence when assigning it an area of operations. An *area of influence* is a geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control (JP 3-0). A unit's area of operations should not be substantially larger than its area of influence. Ideally, the entire AO is encompassed by the area of influence. An area of operations that is too large for a unit to control can allow sanctuaries for enemy forces to develop and may limit the unit's flexibility of operations. If the commander's area of influence is smaller than the assigned AO, the commander must consider options for extending the size of that area of influence. These options include the following techniques:

- Changing the geographical dispositions of current unit systems to increase the size of the area of influence and ensure coverage of key areas, installations, and systems.
- Requesting additional assets.
- Requesting boundary adjustments to reduce the size of the AO.
- Accepting the increased risk associated with being unable to provide security throughout the AO.
- Moving the area of influence by phases to sequentially encompass the entire AO.

2-17. All units assigned an AO have the following responsibilities within the boundaries of that AO:

- Terrain management.
- Information collection.
- Civil affairs operations.
- Air and ground movement control.
- Clearance of fires.
- Security.
- Personnel recovery.
- Environmental considerations.
- Minimum essential stability tasks.

2-18. Responsibility for personnel recovery and environmental issues are not included in the list of responsibilities associated with owning an AO in ADRP 3-0. The organizational designs of all three types of brigade combat teams and the maneuver enhancement brigade encompass performance of these responsibilities. Commanders take care to clearly articulate in the order that assigns an AO to a unit that is not designed to perform all these responsibilities, such as a battlefield surveillance brigade, which AO responsibilities specifically will not be performed.

Terrain Management

2-19. The commander assigned an AO is responsible for terrain management within its boundaries. A higher headquarters may dictate that another unit position itself within a subordinate unit's AO, but the commander assigned the AO retains final approval authority for the exact placement. This ensures the unit commander controlling the AO knows what units are in that AO, and where they are located. This allows commanders to deconflict operations, control movement, and prevent friendly fire incidents. Only the owning commander assigns subordinate unit boundaries within the AO.

Information Collection

2-20. Commanders assigned AOs conduct reconnaissance and surveillance activities and intelligence operations within their AOs to maintain current and accurate operational pictures of their AOs that they can share within and external to their units to establish a common operational picture of those AOs. This is especially important for those units assigned AOs larger than their units' areas of influence.

2-21. A key difference between surveillance missions and reconnaissance is that surveillance is systematic, usually passive in collection of information, and may be continuous; while reconnaissance may be limited in duration of the assigned mission, is active in collection of information, and usually includes human participation. Reconnaissance employs many tactics, techniques, and procedures (TTP) throughout the course of the mission, one of which may include an extended period of surveillance. FM 3-90 discusses reconnaissance in more detail. Both surveillance and reconnaissance produce raw data and information, some of which may be combat information that meets one or more of the commander's critical information requirements or intelligence requirements.

2-22. The raw data and information collected by reconnaissance, surveillance, and intelligence operations assets are a large part of the information collection function of the Army intelligence process, and this data and information require timely analysis, fusion, distribution, and access in order to be effective. The other four parts of the Army intelligence process are plan, prepare, process, and produce. Additionally, there are four continuing activities that occur across the four steps of the intelligence process: generate intelligence knowledge, analyze, assess, and disseminate. (See ADRP 2-0 for additional information on the intelligence process.)

Civil Affairs Operations

2-23. The commander conducts civil affairs operations within the AO to mitigate the impact of the civilian populace on military operations. Closely related to this goal is maximizing host nation support for operations in a manner that does not result in civilians taking a direct role in hostilities and thus becoming unlawful combatants. Meeting the commander's legal obligations and moral responsibilities to the civilian populations within the area of operations is also important. Civil affairs operations range from the informal, day-to-day, engagement of the civil component of the operational environment to planned and organized unit operations. Where sound rapport has been established between the U.S. and host nation forces and the population, properly administered civil affairs operations can be expected to contribute materially to mission success. However, those civil affairs operations conducted to compensate for excessive collateral damage, lapses in troop discipline, perceptions of discourtesy on the part of friendly forces—perhaps resulting from ignorance of local cultural norms, or broken promises and dishonesty—in dealings with the people will attain minimal results.

Air and Ground Movement Control

2-24. Units may not move across boundaries into another unit's AO without receiving clearance from the unit owning the AO. Once assigned an AO, the owning unit controls movement throughout the AO. The designation, maintenance, route security, and control of movement along routes within an AO are the responsibility of the owning unit unless the higher echelon's coordinating instructions direct otherwise. The commander may designate movement routes as open, supervised, dispatch, reserved, or prohibited. Each route's designation varies based on the mission variables of METT-TC. FM 4-01.30 discusses movement planning and control measures.

2-25. *Airspace control* is a process used to increase operational effectiveness by promoting the safe, efficient, and flexible use of airspace (JP 3-52). The ground maneuver commander manages the airspace below the coordinating altitude, using procedural control measures and positive control measures. The *coordinating altitude* is an airspace coordinating measure that uses altitude to separate users as the transition between different airspace coordinating entities (JP 3-52). Corps, divisions, and brigades are the echelons that routinely have airspace control responsibilities, although a higher echelon commander may provide the resources to accomplish this function for battalions and task forces operating independently of the larger command.

2-26. A division airspace control element can perform all airspace control tasks required for a headquarters operating at the tactical- or operational-level. The division airspace control element can operate under a higher Army headquarters or function as the Army force airspace staff. The division airspace control element can perform all functions of a joint force land component or joint task force airspace control element and has the digital compatibility to interface with Marine Corps and multinational automation systems. These airspace control elements do not have the capability to function as an airspace control authority. If the division headquarters is providing the base for a joint force land component or joint task force headquarters, the airspace control element will work directly with the battlefield coordination detachment to interface with the joint force air component commander and airspace control authority. Division airspace control responsibilities include—

- Airspace control over the entire division AO, regardless of whether the AO has been further subdivided into subordinate AOs.
- When a division divides part of its AO into subordinate AOs, some airspace control responsibilities may be delegated to the organizations assigned those subordinate AOs.
- The division airspace control element is responsible for portions of the AO unassigned to subordinate headquarters.
- The division airspace control element is also responsible for integrating joint, multinational, and nonmilitary airspace users over the entire division AO both in planning and execution.
- If the division has an unusually large AO, or if the division AO is noncontiguous, the division can delegate airspace control responsibilities to the subordinate headquarters, but this may require augmentation of additional airspace control personnel to that subordinate headquarters.

2-27. All BCTs and fires, combat aviation, battlefield surveillance, and maneuver enhancement brigades have an organic air defense airspace management (ADAM) and brigade aviation element (BAE). This staff element is composed of air defense artillery and aviation personnel and performs the airspace control function for the brigade in addition to its air and missile defense and aviation functions. While other members of the brigade staff are key airspace control members—fires cell, air liaison officer (ALO) or tactical air control party (TACP), and unmanned aircraft system operators—the ADAM/BAE element is the airspace control integrator for the brigade working under the direction of the brigade S-3. BCT airspace control responsibilities include—

- The authority that a BCT or maneuver enhancement brigade (MEB) controlling an AO has over Army airspace users is the same as the BCT's authority over ground units transiting its AO.
- BCTs or MEBs have authority over all Army airspace users in their AO, as well as close air support (CAS) aircraft in support of BCT operations.
- All Army airspace users transiting a BCT or MEB AO are expected to coordinate with the BCT or MEB responsible for the AO they are transiting.
- Division will only integrate Army airspace use between BCTs or MEBs if adjudication between them is necessary.
- For certain situations, it may be necessary to request approval for a BCT to control a volume of airspace, such as a high density aircraft control zone. However, if a BCT or MEB is to control airspace for an extended period, the commander should augment the ADAM/BAE with additional air control assets from the combat aviation brigade air traffic service company.

2-28. Several types of multifunctional brigades—the fires brigade, combat aviation brigade, and battlefield surveillance brigade—do not routinely control AOs but conduct operations throughout the division AO. These brigades will normally coordinate their airspace use with the BCTs whose AO they will transit or

with the division airspace control for portions of the division AO unassigned to a BCT. When these brigades are tasked by a division headquarters to execute a mission, such as interdiction, attack, strike, or reconnaissance that affects airspace use by other brigades, the brigade conducting the operation is the lead airspace control planner.

2-29. The division airspace control element provides planning and airspace integration support to the brigade ADAM/BAE. It ensures that the division airspace plan is adjusted to take into account the brigade commander's priorities and concept of the operation. The airspace control section of the Army battlefield coordination detachment, collocated with the joint air operations center, provides the commander that liaison capability with the airspace control authority. (See FM 3-52 and JP 3-52 for additional information regarding airspace control doctrine.)

2-30. The vertical dimension, or airspace, of the AO is inherently permissive because all branches and services require the use of airspace. There are procedural and positive airspace coordinating measures available to synchronize military operations in the airspace above the AO. Among the procedural airspace coordinating measures is the coordinating altitude. It allows the ground commander to use the airspace above the AO and below the coordinating altitude for organic assets to complement ground maneuver forces. The airspace control authority, normally the joint force air component commander, must establish the coordinating altitude, promulgate it through the airspace control plan, address it in the airspace control order, and include a buffer zone for small altitude deviations. The airspace control plan should include special coordinating altitudes and control measures for organic unmanned aircraft systems assets that operate outside typical coordinating altitudes. Coordinating altitudes are permissive airspace coordinating measures.

Clearance of Fires

2-31. Within its AO, the owning unit may employ any direct or indirect fire system without receiving further clearance from superior headquarters. There are three exceptions. The first and most common is that a unit may not use munitions within its own AO without receiving appropriate clearance, if the effects of those munitions extend beyond its AO. For example, if a unit wants to use smoke, its effects cannot cross boundaries into another AO unless cleared with the adjacent owning unit. Second, higher headquarters may explicitly restrict the use of certain munitions, such as white phosphorus, within an AO or parts of an AO. Third, higher headquarters may impose a restrictive fire support coordination measure within an AO to protect some asset or facility, such as a no-fire area around a dislocated civilian camp.

2-32. The commander may not employ indirect fires across boundaries without receiving clearance from the unit into whose AO the fires will impact. A commander can, in certain situations, decide to fire across boundaries at positively identified enemy forces without coordination. However, direct and observed joint fires should be used when firing across boundaries at positively identified enemy forces when there is no time to coordinate with adjacent friendly units.

Security

2-33. The security of all units operating within the AO is the responsibility of the owning commander. This does not require that commander to conduct area security operations throughout the AO. (See FM 3-90 for a discussion of area security responsibilities.) The commander must prevent surprise and provide the amount of time necessary for all units located within the AO to effectively respond to enemy actions by employing security forces around those units. If the commander cannot or chooses not to provide security throughout the AO, all concerned individuals and organizations are informed of when, where, and under what conditions the commander will not exercise this function. The commander generally depicts these locations using permissive fire support coordination measures (FSCMs). Each unit commander remains responsible for unit local security measures.

Personnel Recovery

2-34. Army *personnel recovery* is the sum of military, diplomatic, and civil efforts to prevent isolation incidents and to return isolated persons to safety or friendly control (FM 3-50.1). A person can become isolated by enemy action, by becoming disoriented, or by environmental conditions. The commander

assigned an AO is responsible for recovering and returning isolated persons within that AO to friendly control. That commander communicates personnel recovery guidance to the command, establishes personnel recovery command and support relationships, allocates resources to form an appropriate personnel recovery structure, and fixes personnel recovery authorities and responsibilities. (See FM 3-50.1 for additional information on how personnel recovery integrates into the various stages of the operations process.)

2-35. The command's response options to an isolating incident may take several forms. The most effective means of recovery is unassisted, when the isolated person returns to friendly control unaided. An immediate response by the unit with knowledge of the isolation permits the command to recover the isolated person before the situation becomes clear to the enemy. If immediate recovery is not undertaken or is not successful, a deliberate recovery is conducted. Frequently, Army forces may require the support of capabilities from the other Services, special operations forces, multinational forces, or a host nation for deliberate recovery.

Environmental Considerations

2-36. Any commander assigned an AO shares responsibilities for environmental considerations with the host nation's civilian authorities for that AO. The commander is responsible for all environmental considerations, if a functioning civil government does not exist. Mitigating the occurrence of and responding to environmental impacts occurring within the AO is a mixture of the protection warfighting function—as it applies to protecting friendly forces—and the stability subcategory task of providing essential civil services. The commander establishes a command environmental program with policies and responsibilities to integrate environmental considerations into operations to prevent negative impacts on the mission, friendly units, and civilian activities within the AO. The commander coordinates with host nation governmental officials, with the advice of the environmental special staff officer; the unit surgeon; chemical, biological, radiological, and nuclear (CBRN) officer; and the echelon assistant chief of staff, civil affairs operations (G-9/S-9) to ensure—

- Protection of local water sources.
- Integration of waste management to include:
 - Solid waste (to include kitchen waste) and proper disposal—based on mission requirements and authorization—such as open dumping and open burning.
 - Sanitary waste (gray water and black water).
 - Hazardous waste.
 - Medical waste.
 - Recyclable and reusable materials.
- Hazardous materials management (to include pesticides and herbicides).
- Protection of flora and fauna (to include threatened and endangered species).
- Protection of archeological, cultural, and historical sites, structures, and artifacts.
- Spill planning, prevention, and response (to include hazardous materials and petroleum, oils, and lubricants [POL]) within and external to established bases.

2-37. Mitigation of existing adverse environmental impacts may be required before a unit can redeploy from an area. The commander uses judgment in determining how much environmental considerations will impact the unit (either actively or passively) in conducting operations. (See FM 3-34.5/Marine Corps Reference Publication (MCRP) 4-11B for additional information on environmental considerations.)

Minimum Essential Stability Tasks

2-38. Generally, the responsibility for providing for the basic needs of the people within a unit's area of operations rests with the host nation government or designated civil authorities, agencies, and organizations. When this is not possible, the unit owning the area of operations ensures the provision of minimum levels of civil security and the restoration of essential services to the local populace until a civil authority or the host nation is able.

2-39. Operations with combat tasks morally and legally require a minimum of essential stability tasks to be conducted to provide for the protection and well being of the civilian populations. These tasks are always implied and every effort must be made to ensure that if no civilian or host nation agency is present, capable, and willing that the tasks are conducted to the fullest extent of an organization's capabilities. These tasks provide for minimum levels of security, food, water, shelter, and medical treatment.

2-40. Commanders must resource these minimum essential stability tasks. When demand for resources exceeds the organization's capability, the commander must provide the chain of command with the necessary information to provide additional resources to meet the requirements or request higher commanders provide follow-on forces to expeditiously conduct the tasks. Commanders at all levels must assess resources available against the assigned mission to determine how best to ensure these minimum essential stability tasks are accomplished and what risk is acceptable.

COMBINED ARMS

2-41. *Combined arms* is the synchronized and simultaneous application of arms to achieve an effect greater than if each arm was used separately or sequentially (ADRP 3-0). Weapons and units are more effective when they operate in concert. No single action, weapon, branch, or warfighting function generates sufficient power to achieve the effects required to dominate an opponent. Combined arms results from merging the elements of combat power—leadership, information, and each of the warfighting functions. Used destructively, combined arms integrate different capabilities of the warfighting functions, so that counteracting one makes the enemy vulnerable to another. Used constructively, combined arms multiply the effectiveness and the efficiency of Army capabilities used in the conduct of stability or defense support of civil authorities tasks.

CONCEPT OF OPERATIONS

2-42. The *concept of operations* is a verbal or graphic statement that clearly and concisely expresses what the joint force commander intends to accomplish and how it will be done using available resources. (JP 5-0). The concept of operations expands on the commander's intent by describing how the commander wants the force to accomplish the mission. It states the principal tasks required, the responsible subordinate units, and how the principal tasks complement one another. The concept of operations promotes general understanding by stating the task (such as attack) that directly accomplishes the mission (the decisive operation) and the units that will execute it. (See ADRP 3-0 for additional information.)

DECISIVE ENGAGEMENT

2-43. **A decisive engagement is an engagement in which a unit is considered fully committed and cannot maneuver or extricate itself. In the absence of outside assistance, the action must be fought to a conclusion and either won or lost with the forces at hand.** The unit's mission is what usually results in the acceptance of decisive engagement rather than the unit's physical ability to disengage itself. For example, a unit might become decisively engaged to hold key terrain, defeat a specific enemy force, or seize a specific objective. Less common is a defender's decisive engagement as a result of being placed in a position of disadvantage by an attacker.

DEFEAT IN DETAIL

2-44. **Defeat in detail is achieved by concentrating overwhelming combat power against separate parts of a force rather than defeating the entire force at once.** A smaller force can use this technique to achieve success against a larger enemy. Defeat in detail can occur sequentially (defeat of separate elements one at a time in succession). For example, a commander can mass overwhelming combat power effects against an enemy element outside the supporting distance of the rest of the enemy force. This allows the commander to destroy the targeted enemy element before it can be effectively reinforced.

FLANKS

2-45. A **flank** is the right or left limit of a unit. For a stationary unit, flanks are designated in terms of an enemy's actual or expected location. (See figure 2-2.) For a moving unit, they are defined by the direction of movement. (See figure 2-3.) A commander tries to deny an enemy the opportunity to engage the flanks of subordinate units because a unit cannot concentrate as much direct fire on its flanks as it can to the front. Commanders seek to engage the flanks of enemy units for the same reason.

2-46. The area behind a unit is called the unit's rear. A unit's rear is the area opposite the direction of a unit's focus on an enemy force. A unit's rear may either be defined by a rear boundary, in which case the commander has responsibility for all actions that occur in the unit's rear, or it may consist of an unassigned operational area for which a higher headquarters may have responsibility. The rear, or echelon support area, is the area where the majority of the unit's sustainment functions occur. Commanders also try to deny enemies opportunities to engage the rear of friendly units and seek to engage the rear of enemy units because that is the direction toward which units typically can immediately concentrate the least amount of direct fires without a significant redeployment of assets.

2-47. An **assailable flank** is a flank exposed to attack or envelopment. It usually results from the terrain, the weakness of forces, technical capability of the opponent (vertical envelopment), or a gap between adjacent units. If one flank rests on highly restrictive terrain and the other flank is on open terrain, the latter is immediately recognized as the assailable flank for a heavy ground force. The flank on the restrictive terrain may be assailable for dismounted infantry forces. Sufficient room must exist for the attacking force to maneuver for the flank to be assailable. A unit may not have an assailable flank if both flanks link into other forces. When a commander has an assailable flank, the commander may attempt to refuse it by using various techniques, such as supplementary positions.

2-48. A **flanking position** is a geographical location on the flank of a force from which effective fires can be placed on that flank. An attacking commander maneuvers to occupy flanking positions against a defending force to place destructive fires directly against enemy vulnerabilities. A defending commander maneuvers to occupy flanking positions on the flanks of a hostile route of advance for the same reason. A flanking position that an advancing enemy can readily avoid has little value to the defender unless the enemy does not realize it is occupied.

MANEUVER

2-49. *Maneuver* is the employment of forces in the operational area through movement in combination with fires to achieve a position of advantage in respect to the enemy (JP 3-0). Maneuver creates and exposes enemy vulnerabilities to the massed effects of friendly combat power. A commander employs elements of combat power in symmetrical and asymmetrical ways so as to attain positional advantage over an enemy and be capable of applying those massed effects.

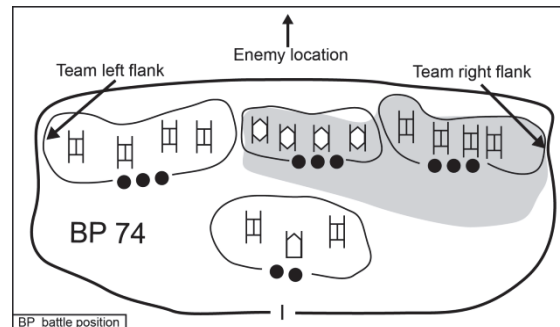


Figure 2-2. Flanks of a stationary unit

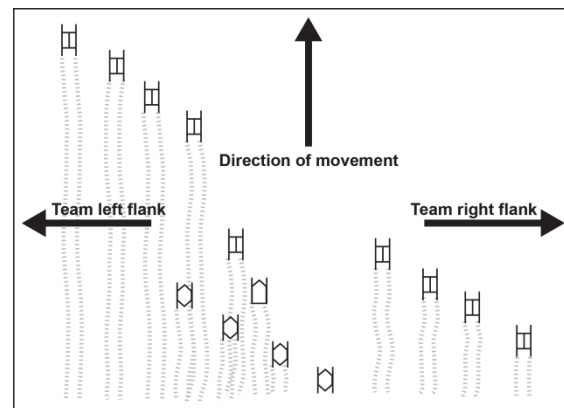


Figure 2-3. Flanks of a moving unit

OPERATION

2-50. An *operation* is a military action or the carrying out of a strategic, tactical, Service, training, or administrative military mission (JP 3-0). It includes the process of planning, preparing, executing, and assessing those offensive, defensive, stability, and defense support of civil authorities tasks needed to gain the objectives of any engagement, battle, major operation, or campaign. It also includes tactical shaping operations that enable the performance of operations.

OPERATIONAL FRAMEWORKS

2-51. Army leaders are responsible for clearly articulating their visualization of operations in time, space, purpose, and resources. An established operational framework and associated vocabulary can assist greatly in this task. Army leaders are not bound by any specific framework for conceptually organizing operations. ADP 3-0 and ADRP 3-0 established three operational frameworks—decisive-shaping-sustaining; deep-close-security; and main and supporting efforts. The higher headquarters will direct the specific framework or frameworks to be used by subordinate headquarters, and the framework used should be consistent throughout all echelons for a given operation. (See ADRP 3-0 for additional discussion of these operational frameworks.)

PIECEMEAL COMMITMENT

2-52. ***Piecemeal commitment is the immediate employment of units in combat as they become available instead of waiting for larger aggregations of units to ensure mass, or the unsynchronized employment of available forces so that their combat power is not employed effectively.*** Piecemeal commitment subjects the smaller committed forces to defeat in detail and prevents the massing and synchronizing of combat power with following maneuver and sustainment elements. However, piecemeal commitment may be advantageous to maintain momentum and to retain or exploit the initiative. A commander may require piecemeal commitment of a unit to reinforce a faltering operation, especially if the commitment of small units provides all of the combat power needed to avert disaster.

A committed force is a force in contact with an enemy or deployed on a specific mission or course of action which precludes its employment elsewhere. A force with an on-order mission is considered to be a committed force.

RECONSTITUTION

2-53. *In-theater reconstitution* is the name for the extraordinary actions that commanders take to restore units to a desired level of combat effectiveness commensurate with mission requirements and available resources (ADP 4-0). Reconstitution includes regeneration and reorganization. Reconstitution is a total process. It is not solely a sustainment operation, though sustainment plays an integral role. The commander conducts reconstitution when one or more subordinate units become combat ineffective, or when the commander can raise the combat effectiveness of a subordinate unit closer to the desired level by shifting available resources. Besides normal sustainment actions, reconstitution may include—

- Removing the unit from combat.
- Assessing it with external assets.
- Reestablishing a chain of command.
- Training the unit for future operations.
- Reestablishing unit cohesion.

Reconstitution transcends normal day-to-day force sustainment actions. However, it uses existing systems and units to do so. (See ADP 4-0 for reconstitution doctrine.)

RESERVE

2-54. **A reserve is that portion of a body of troops which is withheld from action at the beginning of an engagement, in order to be available for a decisive movement.** The reserve is not a committed force

and thus does not normally have a full suite of combat multipliers available to it until its commitment. It is normally the echelon's main effort once committed. The commander constitutes a reserve regardless of which element of operations currently dominates. The commander bases the desired size of the reserve on the level of uncertainty and risk in the current tactical situation. The location occupied by the echelon reserve depends on the most likely mission for the reserve on commitment or on survivability considerations. The commander can assign the reserve a wide variety of tasks to perform on commitment, and it must be prepared to perform other missions. The primary tasks for a reserve are to—

- Retain the initiative.
- Take advantage of unexpected success.
- Counter tactical reverses that threaten the integrity of the friendly force's operations.

A commander should always retain a reserve, reconstituting one whenever possible on the commitment of the original reserve.

RULES OF ENGAGEMENT

2-55. *Rules of engagement* are directives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered (JP 1-04). Operational requirements, policy, and law define the commander's rules of engagement. Rules of engagement impact on how a commander conducts operations by imposing political, practical, operational, and legal limitations. They may extend to criteria for initiating engagements with certain weapon systems, such as employing unobserved indirect fires within the echelon support area, or reacting to an attack. They always recognize the right of self-defense and the commander's right and obligation to protect assigned personnel. The Joint Chiefs of Staff have established standing rules of engagement. Operational level commanders modify those standing rules of engagement as necessary. (See FM 1-04 for additional information on rules of engagement.)

TACTICAL MOBILITY

2-56. Tactical mobility is the ability of friendly forces to move and maneuver freely on the battlefield or in a given AO, relative to the enemy. Tactical mobility is a function of the relationship between cross-country mobility, firepower, and protection. The terrain, soil conditions, and weather affect cross-country mobility. Armored ground maneuver units, such as combined arms battalions, have good tactical mobility—except in restrictive terrain—combined with maximum firepower and protection. They can move on the battlefield against most enemy forces unless faced with an enemy who can neutralize their protection and cannot be suppressed by friendly fires. Infantry ground maneuver units, such as airborne infantry battalions, have a tactical mobility advantage against enemy heavy forces in restrictive terrain, but limited firepower and protection. Stryker equipped forces also have good tactical mobility but possess more limited firepower and protection than armored forces. Army aviation maneuver units have excellent mobility in all but the most restrictive types of terrain, such as very high mountains, and good firepower, but limited protection. Additionally, extreme weather conditions can restrict the mobility of Army aviation units.

UNCOMMITTED FORCES

2-57. **An uncommitted force is a force that is not in contact with an enemy and is not already deployed on a specific mission or course of action.** A commander uses uncommitted forces to exploit success or deal with potential failure. Echelon reserves are examples of uncommitted forces.

TACTICAL ECHELONS

2-58. The Army echelons its broad array of capabilities to perform diverse functions. These functions vary with the type of unit and, particularly at operational echelons, with the organization of the theater, the nature of the conflict, and the number of friendly forces committed to the effort. The Army's tactical echelons range from the fire team or crew, through the squad, section, platoon, company, battalion, and brigade to the division echelon.

2-59. At each echelon, the commander task organizes available capabilities to accomplish the mission. The commander's purpose in task organization is to maximize subordinate commanders' abilities to generate a combined arms effect consistent with the concept of operations. Commanders and staffs work to ensure the distribution of capabilities to the appropriate components of the force to weight the decisive operation. The relationships between units within and supporting an echelon are described in terms of command and support relationships. (See ADRP 5-0 for a discussion of these relationships.)

FIRE TEAM

2-60. A **fire team is a small military unit**. A fire team generally consists of four or fewer soldiers and is usually grouped by two or three teams into a squad or section. The concept of the fire team is based on the need for tactical flexibility. A fire team is capable of autonomous operations as part of its next larger unit, such as a squad or section. It is usually led by a sergeant.

CREW

2-61. A **crew consists of all personnel operating a particular system**. This system might be a weapons system, such as a tank or machinegun. The system might also be a vehicle, such as a helicopter, or a sensor system, such as a target acquisition radar. The rank of the senior crew member can vary widely from a junior noncommissioned officer to a commissioned or warrant officer based on the system.

SQUAD

2-62. A **squad is a small military unit typically containing two or more fire teams**. It typically contains a dozen Soldiers or less. In some cases the crew of a system may also be designated as a squad. Squads are usually led by a staff sergeant.

SECTION

2-63. A **section is an Army unit smaller than a platoon and larger than a squad**. A section may consist of the crews of two or more Army systems, such as a tank section, or several fire teams.

PLATOON

2-64. A **platoon is a subdivision of a company or troop consisting of two or more squads or sections**. A platoon is normally led by a lieutenant. Platoons tend to contain roughly 30 Soldiers, but in some cases they contain significantly more or less than that number.

COMPANIES, BATTERIES, TROOPS, AND DETACHMENTS

2-65. A **company is a unit consisting of two or more platoons, usually of the same type, with a headquarters and a limited capacity for self-support**. A **troop is a company-size unit in a reconnaissance organization**. A **battery is a company-size unit in a fires or air defense artillery battalion**. A company normally consists of more than 75 soldiers. Some aviation and armor companies are exceptions to this rule. Companies and air defense and artillery batteries are the basic elements of battalions. Companies, batteries, and troops may also be assigned as separate units of brigades and larger organizations. Some companies, such as special forces companies, have subordinate detachments, instead of platoons, which are organized and trained to operate independently for extended periods. A **detachment is a tactical element organized on either a temporary or permanent basis for special duties**.

2-66. Company-size combat units can fight in mass or by subordinate platoons. Reconnaissance troops frequently operate with their platoons in separate areas. In combined arms battalions, companies fight either as integral units or as task-organized teams reinforced with close-combat platoons of the same or different types. A **company team is a combined arms organization formed by attaching one or more nonorganic armor, mechanized infantry, Stryker, or infantry platoons to an armor, mechanized infantry, Stryker, or infantry company, either in exchange for, or in addition to, its organic platoons**. These company teams can include other supporting squads or platoons, such as engineers. Company teams

are task-organized for specific missions. Such teams can match capabilities to missions with greater precision than units using only organic platoons. However, the attachment of different units at the company level demands thorough training to achieve the maximum complementary effects. Whenever possible, platoons and detachments should train together before they are committed.

2-67. Fires batteries are the basic firing units of fires battalions. They are organized with firing platoons, a headquarters, and limited support sections. They may fire and displace together or by platoons. Normally, batteries fight as part of their parent battalions, but the commander can establish a command or support relationship to other batteries or other units. In rare cases batteries or even platoons respond directly to a maneuver battalion or company. If required, multiple launch rocket system (MLRS) batteries are equipped to operate independently from battalion control.

2-68. Air defense artillery batteries operate as the fighting elements of air defense artillery battalions. Air defense batteries provide fires for protection against lower and upper tier aerial threats. Various air defense systems provide short to long range capabilities. They are employed using the principles of mass, mix, mobility, and integration.

2-69. Combat engineer companies control a mixture of different types of engineer platoons. Each type of BCT has an organic engineer company. In armored BCTs and infantry BCTs they are part of the brigade special troops battalion. The engineer company in a Stryker BCT is a separate company. Combat engineer companies attached to engineer battalions may be employed in a variety of tasks, or they may be placed in some type of support relationship to BCTs or functional or multifunctional support brigades.

2-70. Most functional and multifunctional support brigades contain attached separate companies with greater self-sustainment capabilities than normally found in comparable size maneuver organizations. However, they may receive unit-level sustainment support on an area basis. Such functional and multifunctional support companies vary widely in size, employment, and assignment.

BATTALIONS AND SQUADRONS

2-71. A **battalion (or a reconnaissance squadron) is a unit consisting of two or more company-, battery-, or troop-size units and a headquarters.** Most battalions range in size between 500 and 800 Soldiers, although some sustainment battalions are larger. Most maneuver battalions are organized by branch, arm, or service and, in addition to their line companies, contain a headquarters company. Combined arms battalions are exceptions to this rule, in that they contain two mechanized infantry companies and two armor companies. Typically, battalions have three to five companies in addition to their headquarters.

2-72. A BCT commander can task organize subordinate maneuver battalions with other maneuver and functional and multifunctional support companies to form task forces for special missions. **A battalion task force is a maneuver battalion-size unit consisting of a battalion headquarters, at least one assigned company-size element, and at least one attached company-size element from another maneuver or support unit (functional or multifunctional).** Combined arms battalions are permanently organized battalion task forces and have their own graphic symbol. Task organization increases the capability of maneuver battalions. Fires battalions may control batteries of any kind from other fires battalions through an established support relationship. The commander can reinforce engineer battalions with the same or different types of engineer companies and platoons to form engineer task forces.

2-73. Functional and multifunctional support and sustainment battalions vary widely in type and organization. They may perform functional services for a larger supported unit within that unit's AO. All battalions are capable of short-term, limited self-defense.

BRIGADES, REGIMENTS, AND GROUPS

2-74. A **brigade is a unit consisting of two or more battalions and a headquarters company or detachment.** A brigade normally contains between 2,500 to 5,000 Soldiers. Its capacity for independent action varies by its type. Division commanders use armored, infantry, or Stryker brigade combat teams, supported by multifunctional support brigades—fires brigades, combat aviation brigades, maneuver enhancement brigades (MEBs), battlefield surveillance brigades, and sustainment brigades—and functional brigades, such as air and missile defense brigades, engineer brigades, civil affairs brigades, and military

police brigades, to accomplish their assigned missions. Sustainment brigades are normally assigned to the theater sustainment command and provide support to other Army units, usually on an area basis.

2-75. **A brigade combat team is a combined arms organization consisting of a brigade headquarters, at least two maneuver battalions, and necessary supporting functional capabilities.** BCTs are the largest fixed tactical units in the Army. However, additional battalions and companies may be attached to them or their organic battalions, and companies can be detached from them as part of force tailoring at the strategic and operational levels and task organization at the tactical level as required by the mission variables of METT-TC. Infantry and armored BCTs normally include a fires battalion, a brigade support battalion, and a brigade special troops battalion in addition to their two maneuver battalions and a reconnaissance squadron. Stryker BCTs do not have a brigade special troops battalion. They have separate functional companies. They also have a third maneuver battalion and a fires battalion. BCTs combine the efforts of their battalions and companies to fight engagements and perform tactical tasks within division-level battles and major operations. Their chief tactical responsibility is synchronizing the plans and actions of their subordinate units to accomplish assigned tasks for a division headquarters.

2-76. Army Regulation (AR) 600-82 defines a regiment as a single or a group of like-type combat arms or training units authorized a regimental color. (The term “combat arms” is a rescinded doctrinal term, but it still exists in Army regulations.) Traditionally, a regiment was a fixed tactical unit with organic combat battalions and supply and support organizations. The Army currently retains only one traditional tactical regiment, the 75th Rangers. All of the Army’s other regiments have no tactical function. Instead, they are intended to perpetuate regimental history, esprit de corps, and traditions for Soldiers affiliated with a regiment. Many of the Army’s branches contain only a single regiment, such as the Corps of Engineers and the Military Police Corps. Each maneuver battalion or squadron carries an association with a parent regiment. In some BCTs and brigades several numbered battalions carrying the same regimental association serve together, and tend to consider themselves part of the traditional regiment, when in fact they are independent battalions serving a brigade, rather than a regimental headquarters. For example, some BCTs, such as the 3rd Cavalry Regiment, bear the title of cavalry regiments for historical purposes.

2-77. Groups are brigade-size organizations that, as a result of Army modularity, will continue to be rarely used outside the Army’s special operations forces. The Army’s modular design deactivates group headquarters in favor of activating additional brigade headquarters. Exceptions to this are explosive ordnance disposal (EOD), criminal investigation division (CID), regional support groups, military information support, and special forces. Traditionally, a group headquarters could be established under a brigade as an intermediate headquarters for two or more functional and multifunctional support and sustainment battalions when the span of control of the brigade exceeded seven battalion-size subordinate units. Group headquarters were extensively organized as building blocks in large sustainment organizations and functional commands, such as theater army sustainment commands and engineer commands.

DIVISION

2-78. **A division is an Army echelon of command above brigade and below corps. It is a tactical headquarters which employs a combination of brigade combat teams, multifunctional brigades, and functional brigades in land operations.** The division headquarters is a self-contained organization with a command group and a fully functional staff that requires no staff support from subordinate units to provide functional staff capabilities for its primary role. The organization consists of a headquarters and headquarters battalion, which provides administrative and sustainment support to the division headquarters in garrison and when deployed for operations.

2-79. The division headquarters may command or be supported by a variable number of subordinate BCTs, multifunctional brigades, and functional brigades, depending upon the role of the headquarters and the mission variables of METT-TC. Typically, a division headquarters would have between two and five subordinate BCTs, plus a tailored set of subordinate multifunctional brigades. These multifunctional brigades may include a fires brigade and one or more combat aviation brigades, a battlefield surveillance brigade, and a maneuver enhancement brigade. The functional brigades consist of military police, engineer, air and missile defense, and military intelligence brigades. BCTs and multifunctional brigades normally have command relationships with the division headquarters (assigned, attached, operational control

[OPCON] or tactical control [TACON]). Functional brigades may have a command relationship with the division headquarters, or may have a support relationship (direct support or general support), or may support friendly forces on an area basis. Sustainment and medical units supporting the division headquarters and the forces task organized under it are assigned to the theater sustainment command and will normally provide support on an area basis, although under unusual circumstances they may be placed OPCON or TACON to the division headquarters, when the mission variables of METT-TC make a command relationship more practical and effective.

2-80. The division headquarters provides a flexible mission command capability and utility in all operational environments. The division headquarters may be used in other roles, including as the senior Army headquarters, joint force land component, or joint task force headquarters in a joint operations area for smaller scale operations. However, when performing these roles, the division requires significant Army and joint augmentation.

2-81. The mission variables of METT-TC determine the optimal size and mix of capabilities of the forces task organized under each division headquarters. The size, composition and capabilities of the forces task organized under the division headquarters may vary between divisions involved in the same joint campaign, and may change from one phase of that campaign to another. Operations focused on destruction of a conventional enemy military force (offense and defense tasks) may require a mix of forces and capabilities that is quite different from those required for an operation focused on protection of civil populations (stability tasks). For conventional military operations, the division should have one of each type of multifunctional and functional brigade in order to have available all of the capabilities required to conduct combined arms operations.

2-82. The division normally operates as a tactical headquarters under the operational control of an Army corps, ARFOR, or joint force land component commander. As a tactical echelon of mission command, the division headquarters arranges the multiple tactical actions of its subordinates in time, space and purpose to achieve significant military objectives. The division headquarters coordinates and synchronizes the tactical actions of subordinate brigades and directs them toward a common purpose or higher order objective. The division headquarters leverages joint force capabilities and conducts shaping operations within its area of operations in order to establish favorable conditions for the success of its main effort or decisive operation. The division allocates resources, designates the main effort, forecasts operational requirements, and establishes the priorities of support within its task organized forces. Sustainment and medical forces and functional units (military police, engineer, air and missile defense, and military intelligence) provide support in accordance with the priorities established by the supported division commander. The historical designations of the division headquarters, such as the 1st Cavalry Division and 101st Airborne Division, do not necessarily reflect the capabilities of the subordinate forces task organized under them.

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Chapter 3

The Offense

Offensive actions are combat operations conducted to defeat and destroy enemy forces and seize terrain, resources, and population centers. They impose the commander's will on the enemy. A commander may also conduct offensive actions to deprive the enemy of resources, seize decisive terrain, deceive or divert the enemy, develop intelligence, or hold an enemy in position. This chapter discusses the basics of the offense. The basics discussed in this chapter apply to all offensive tasks.

3-1. The commander seizes, retains, and exploits the initiative when conducting offensive actions. Specific operations may orient on a specific enemy force or terrain feature as a means of affecting the enemy. Even when conducting primarily defensive actions, wresting the initiative from the enemy requires offensive actions.

PURPOSES OF THE OFFENSE

3-2. The main purpose of the offense is to defeat, destroy, or neutralize the enemy force. Additionally, commanders conduct offensive tasks to secure decisive terrain, to deprive the enemy of resources, to gain information, to deceive and divert the enemy, to hold the enemy in position, to disrupt the enemy's attack, and to set up the conditions for future successful operations.

CHARACTERISTICS OF THE OFFENSE

3-3. Characteristics of the offense include audacity, concentration, surprise, and rapid tempo. Effective offensive actions capitalize on accurate and timely intelligence and other relevant information regarding enemy forces, weather, and terrain. The commander maneuvers forces to advantageous positions before contact. Protection tasks, such as security operations, operations security, and information protection keep or inhibit the enemy from acquiring accurate information about friendly forces. Contact with enemy forces before the decisive operation is deliberate, designed to shape the optimum situation for the decisive operation. The decisive operation that conclusively determines the outcome of the major operation, battle, and engagement capitalizes on subordinate initiative and a common operational picture to expand throughout the area of operations (AO). Without hesitation, the commander violently executes both maneuver and fires—within the higher commander's intent—to break the enemy's will or destroy the enemy.

AUDACITY

3-4. Audacity means boldly executing a simple plan of action. Commanders display audacity by developing bold, inventive plans that produce decisive results. Commanders demonstrate audacity by violently applying combat power. They understand when and where to take risks, and they do not hesitate as they execute their plan. Commanders dispel uncertainty through action; they compensate for lack of information by seizing the initiative and pressing the battle.

CONCENTRATION

3-5. Concentration is the massing of overwhelming effects of combat power to achieve a single purpose. Commanders balance the necessity for concentrating forces to mass effects with the need to disperse them to avoid creating lucrative targets. Advances in ground and air mobility, target acquisition, and long-range precision munitions enable attackers to rapidly concentrate effects. Mission command systems provide

reliable, relevant information that assists commanders in determining when to concentrate forces to mass effects.

3-6. Attacking commanders manipulate their own and the enemy's force concentration by combining dispersion, concentration, military deception, and attacks. By dispersing, attackers stretch enemy defenses and deny lucrative targets to enemy fires. By massing forces rapidly along converging axes and synchronizing the effects of available supporting assets, attackers overwhelm enemy forces at decisive points with concentrated combat power. (Commanders and staffs ensure that the opportunity costs of any delays in execution occurring as a result of that synchronization process do not outweigh the benefits of that synchronization.) After a successful attack, commanders keep their forces concentrated to take advantage of their momentum. Should enemy forces threaten them, they may disperse again. Commanders adopt the posture that best suits the situation, protects the force, and sustains the attack's momentum.

3-7. Concentration requires coordination with other Services and multinational partners. At every stage of an attack, commanders integrate joint intelligence assets with joint fires. They capitalize on air superiority to deny the enemy the ability to detect or strike friendly forces from the air. Commanders direct ground, air, and sea resources to delay, disrupt, or destroy enemy reconnaissance elements or capabilities. They also direct security, information protection, and counterfire to protect friendly forces as they concentrate.

SURPRISE

3-8. In the offense, commanders achieve surprise by attacking the enemy at a time or place the enemy does not expect or in a manner that the enemy is unprepared for. Estimating the enemy commander's intent and denying that commander the ability to gain thorough and timely situational understanding is necessary to achieve surprise. Unpredictability and boldness help gain surprise. The direction, timing, and force of the attack also help achieve surprise. Surprise delays enemy reactions, overloads and confuses the enemy commander's command and control systems, induces psychological shock in enemy soldiers and leaders, and reduces the coherence of the defense. By diminishing enemy combat power, surprise enables attackers to exploit enemy paralysis and hesitancy.

3-9. Operational and tactical surprise complement each other. Operational surprise creates the conditions for successful tactical operations. Tactical surprise can cause the enemy to hesitate or misjudge a situation. But tactical surprise is fleeting. Commanders must exploit it before the enemy realizes what is happening.

3-10. Outright surprise is difficult to achieve. Modern surveillance and warning systems, the availability of commercial imagery products, and global commercial news networks make surprise more difficult. Nonetheless, commanders achieve surprise by operating in a way the enemy does not expect. They deceive the enemy as to the nature, timing, objective, and force of an attack. They can use bad weather, seemingly impassable terrain and military deception activities, such as feints, demonstrations, and false communications, to lead the enemy into inaccurate perceptions. Sudden, violent, and unanticipated attacks have a paralyzing effect. Airborne, air assault, and special operations forces attacks—combined with strikes by Army and joint fires against objectives the enemy regards as secure—create disconcerting psychological effects on the enemy.

3-11. Surprise can come from an unexpected change in tempo. The tempo may be slow at first, creating the conditions for a later acceleration that catches enemy forces off guard and throws them off balance. U.S. forces demonstrated such a rapid change in tempo before Operation Just Cause in 1989. Accelerated tempo resulted in operational and tactical surprise, despite increased publicity and heightened tensions beforehand.

3-12. Commanders conceal the concentration of their forces. Units mask activity that might reveal the direction or timing of an attack. Commanders direct action to deceive the enemy and deny the enemy's ability to collect information.

TEMPO

3-13. Controlling or altering tempo is necessary to retain the initiative. At the operational level, a faster tempo allows attackers to disrupt enemy defensive plans by achieving results quicker than the enemy can

respond. At the tactical level, a faster tempo allows attackers to quickly penetrate barriers and defenses and destroy enemy forces in depth before they can react.

3-14. Commanders adjust tempo as tactical situations, sustainment necessity, or operational opportunities allow to ensure synchronization and proper coordination, but not at the expense of losing opportunities to defeat the enemy. Rapid tempo demands quick decisions. It denies the enemy the chance to rest, and it continually creates opportunities.

3-15. By increasing tempo, commanders maintain momentum. They identify the best means, such as maneuver, Army and joint fires, and avenues for attack; plan the action in depth; provide for quick transitions to other operations; and concentrate and combine forces effectively. Commanders and staffs ensure that sustainment operations do not prevent culmination of the offense. Once combat begins, attackers execute violently. They follow reconnaissance units or successful probes and quickly move through gaps before defenders recover. Attackers shift combat power quickly to widen penetrations, roll up exposed flanks, and reinforce successes. Friendly forces attack in depth with fires and maneuver to destroy the enemy's coherence and overwhelm the enemy's command and control. While maintaining a tempo faster than the enemy's, attackers balance that tempo with the ability to exercise mission command. Commanders never permit the enemy to recover from the shock of the initial assault. They prevent defenders from massing effects against the friendly decisive operation.

OFFENSIVE TASKS

3-16. An *offensive task* is a task conducted to defeat and destroy enemy forces and seize terrain, resources, and population centers (ADRP 3-0). The four primary offensive tasks are movement to contact, attack, exploitation, and pursuit.

MOVEMENT TO CONTACT

3-17. **Movement to contact is an offensive task designed to develop the situation and to establish or regain contact.** The goal is to make initial contact with a small element while retaining enough combat power to develop the situation and mitigate the associated risk. A movement to contact also creates favorable conditions for subsequent tactical actions. The commander conducts a movement to contact when the enemy situation is vague or not specific enough to conduct an attack. Forces executing this task seek to make contact with the smallest friendly force feasible. A movement to contact may result in a meeting engagement. Once contact is made with an enemy force, the commander has five options: attack, defend, bypass, delay, or withdraw. The Army includes search and attack and cordon and search operations as part of movement to contact operations.

ATTACK

3-18. **An attack is an offensive task that destroys or defeats enemy forces, seizes and secures terrain, or both.** Attacks incorporate coordinated movement supported by fires. They may be either decisive or shaping operations. Attacks may be hasty or deliberate, depending on the time available for assessing the situation, planning, and preparing. However, based on mission variable analysis, the commander may decide to conduct an attack using only fires. An attack differs from a movement to contact because, in an attack, the commander knows part of the enemy's disposition. This knowledge enables the commander to better synchronize and employ combat power more effectively in an attack than in a movement to contact.

3-19. Subordinate forms of the attack have special purposes and include the ambush, counterattack, demonstration, feint, raid, and spoiling attack. The commander's intent and the mission variables of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) determine which of these forms of attack are employed. The commander can conduct each of these forms of attack, except for a raid, as either a hasty or a deliberate operation.

EXPLOITATION

3-20. **Exploitation is an offensive task that usually follows the conduct of a successful attack and is designed to disorganize the enemy in depth.** Exploitations seek to disintegrate enemy forces to the point where they have no alternative but to surrender or take flight. Exploitations take advantage of tactical opportunities. Division and higher headquarters normally plan exploitations as branches or sequels.

PURSUIT

3-21. **A pursuit is an offensive task designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it.** A pursuit normally follows a successful exploitation. However, any offensive task can transition into a pursuit, if enemy resistance has broken down and the enemy is fleeing the battlefield. Pursuits entail rapid movement and decentralized control. Bold action, calculated initiative, and accounting for the associated risk are required in the conduct of a pursuit.

COMMON OFFENSIVE CONTROL MEASURES

3-22. This section defines common control measures that a commander uses to synchronize the effects of combat power. The commander uses the minimum control measures required to successfully complete the mission while providing subordinates the flexibility needed to respond to changes in the situation.

ASSAULT POSITION

3-23. **An assault position is a covered and concealed position short of the objective from which final preparations are made to assault the objective.** Ideally, it offers both cover and concealment. These final preparations can involve tactical considerations, such as a short halt to coordinate the final assault, reorganize to adjust to combat losses, or make necessary adjustments in the attacking force's dispositions. They can also involve technical items, such as engineers conducting their final prepare-to-fire checks on obstacle clearing systems and the crews of plow- and roller-equipped tanks removing their locking pins. An assault position may be located near a final coordination line (FCL) or a probable line of deployment (PLD).

ASSAULT TIME

3-24. **The assault time establishes the moment to attack the initial objectives throughout the geographical scope of the operation.** It is imposed by the higher headquarters in operations to achieve simultaneous results from several different units. It synchronizes the moment the enemy feels the effects of friendly combat power. It is similar to the time-on-target control method for fire mission processing used by the field artillery. A commander uses it instead of a time of attack because of the different distances that different elements of the force must traverse, known obstacles, and differences in unit tactical mobility.

ATTACK BY FIRE POSITION

3-25. **An attack by fire position designates the general position from which a unit conducts the tactical task of attack by fire.** The purpose of these positions is to mass the effects of direct fire systems from one or multiple locations on the enemy. An attack by fire position does not indicate the specific site. Attack by fire positions are rarely applicable to units larger than company size.

ATTACK POSITION

3-26. **The attack position is the last position an attacking force occupies or passes through before crossing the line of departure.** An attack position facilitates the deployment and last-minute coordination of the attacking force before it crosses the line of departure (LD). It is located on the friendly side of the LD and offers cover and concealment. It is used primarily at battalion level and below. Whenever possible, units move through their attack position without stopping. A unit occupies an attack position for a variety of reasons, such as waiting for specific results from preparation fires or when it is necessary to conduct

additional coordination, such as a forward passage of lines. If a unit occupies an attack position, it stays there for the shortest amount of time possible to avoid offering the enemy a lucrative target.

AXIS OF ADVANCE

3-27. An *axis of advance* designates the general area through which the bulk of a unit's combat power must move. When developing the axis of advance, the commander also establishes bypass criteria. ***Bypass criteria* are measures during the conduct of an offensive operation established by higher headquarters that specify the conditions and size under which enemy units and contact may be avoided.** There are three primary reasons why a commander uses an axis of advance:

- First, to direct the bypass of locations that could delay the progress of the advancing force, such as known contaminated areas.
- Second, to indicate that the force is not required to clear the AO as it advances. The force will be required to clear the axis in accordance with specified bypass criteria.
- The third primary reason is to indicate to a unit involved in offensive encirclement, exploitation, or pursuit operations the need to move rapidly toward an objective.

BATTLE HANDOVER LINE

3-28. The *battle handover line* is a designated phase line on the ground where responsibility transitions from the stationary force to the moving force and vice versa. The common higher commander of the two forces establishes the battle handover line (BHL) after consulting both commanders. The stationary commander determines the location of the line. The BHL is forward of the forward edge of the battle area (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. The stationary force commander may employ security forces, obstacles, and fires in the area.

DIRECTION OF ATTACK

3-29. The *direction of attack* is a specific direction or assigned route a force uses and does not deviate from when attacking. It is a restrictive control measure. The commander's use of a direction of attack maximizes control over the subordinate unit movement, and is often used during night attacks, infiltrations, and when attacking through smoke. The commander establishes a direction of attack through a variety of means, such as target reference points, checkpoints, global positioning system (GPS) way points, and using sensors, such as ground surveillance radar to track the attack force and target acquisition radars to track the impact of artillery shells. Target reference points placed on recognizable terrain provide the commander with the capability to rapidly shift fires and reorient subordinate maneuver forces. When using a direction of attack, the commander designates a point of departure.

FINAL COORDINATION LINE

3-30. The *final coordination line* is a phase line close to the enemy position used to coordinate the lifting or shifting of supporting fires with the final deployment of maneuver elements. Final adjustments to supporting fires necessary to reflect the actual versus the planned tactical situation take place prior to crossing this line. It should be easily recognizable on the ground. The FCL is not a fire support coordination measure.

LIMIT OF ADVANCE

3-31. The *limit of advance* is a phase line used to control forward progress of the attack. The attacking unit does not advance any of its elements or assets beyond the limit of advance, but the attacking unit can push its security forces to that limit. A commander usually selects a linear terrain feature, perpendicular to the direction of attack, on the far side of the objective as the limit of advance (LOA) because the terrain feature is easily identifiable. The use of a LOA prevents overextending the

attacking force and reduces fratricide possibilities and friendly fire incidents by fires supporting the attack. The commander positions a LOA far enough beyond the objective to allow the unit flexibility in defending the objective. A LOA prevents units from exploiting success and launching a pursuit; therefore, commanders should only use LOAs if they do not want their units to conduct an exploitation or pursuit. A LOA and the unit's forward boundary should rarely coincide because of limitations that a forward boundary places on supporting fires beyond the boundary.

LINE OF DEPARTURE

3-32. **The *line of departure* is a phase line crossed at a prescribed time by troops initiating an offensive task.** The purpose of the LD is to coordinate the advance of the attacking force, so that its elements strike the enemy in the order and at the time desired. The LD also marks where the unit transitions from movement to maneuver. The commander can also use it to facilitate the coordination of fires. Generally, it should be perpendicular to the direction the attacking force will take on its way to the objective. Friendly forces should control the LD. The commander analyzes the terrain before designating a LD. Different units have different movement rates upon leaving their assembly areas (AAs) based on their inherent mobility characteristics and the terrain being crossed. The commander considers these different characteristics when establishing the LD to prevent these differences from affecting the operation's synchronization. When possible, the commander selects the LD so that the terrain traversed by the unit before crossing the LD provides cover for the unit's deployment into a combat formation before crossing the LD. In many cases the LD is also the line of contact because the unit in contact is conducting the attack from its current positions.

OBJECTIVE

3-33. **An *objective* is a location on the ground used to orient operations, phase operations, facilitate changes of direction, and provide for unity of effort.** An objective can be terrain- or force-oriented. Terrain objectives should be easily identifiable on the ground to facilitate their recognition. The commander determines force-oriented objectives based on known enemy positions. The commander normally assigns subordinate commanders only their final objectives, but can assign intermediate objectives as necessary.

POINT OF DEPARTURE

3-34. **The *point of departure* is the point where the unit crosses the line of departure and begins moving along a direction of attack.** Units conducting patrols and other operations in a low-visibility environment commonly use a point of departure as a control measure. Like a LD, it marks the point where the unit transitions from movement to maneuver under conditions of limited visibility.

PROBABLE LINE OF DEPLOYMENT

3-35. **A *probable line of deployment* is a phase line that designates the location where the commander intends to deploy the unit into assault formation before beginning the assault.** The PLD is used primarily at battalion level and below when the unit does not cross the LD in its assault formation. It is usually a linear terrain feature perpendicular to the direction of attack and recognizable under conditions of limited visibility. The PLD should be located outside the range where the enemy can place the attacking force under effective direct fire. It has no use except as it relates to the enemy.

RALLY POINT

3-36. A *rally point* is an easily identifiable point on the ground at which units can reassemble and reorganize if they become dispersed. Alternatively, it is an easily identifiable point on the ground at which aircrews and passengers can assemble and reorganize following an incident requiring a forced landing (ADRP 1-02). Forces conducting a patrol or an infiltration commonly use this control measure. **The *objective rally point* is a rally point established on an easily identifiable point on the ground where all elements of the infiltrating unit assemble and prepare to attack the objective.** It is typically near the

infiltrating unit's objective; however, there is no standard distance from the objective to the objective rally point. It should be far enough away from the objective so that the enemy will not detect the infiltrating unit's attack preparations.

SUPPORT BY FIRE POSITION

3-37. A *support by fire position* designates the general position from which a unit conducts the tactical mission task of support by fire. The purpose of these positions is to increase the supported force's freedom of maneuver by placing direct fires on an objective that is going to be assaulted by a friendly force. Support by fire positions are located within the maximum friendly direct-fire range of enemy positions. The commander selects them so that the moving assault force does not mask its supporting fires. For this reason, support by fire positions are normally located on the flank of the assault force, elevated above the objective if possible. Support by fire positions are rarely applicable to units larger than company size. The support by fire position graphic indicates the general location and direction from which the unit provides fires; it does not indicate a specific site.

TIME OF ATTACK

3-38. The *time of attack* is the moment the leading elements of the main body cross the line of departure, or in a night attack, the point of departure. A commander uses it when conducting simultaneous operations where a shaping operation must accomplish its mission to set the conditions for the success of the decisive operation. When determining time of attack, the commander considers the time subordinates require to—

- Conduct necessary reconnaissance, prepare plans, and issue orders.
- Synchronize plans between all subordinate units.
- Complete attack preparations, such as pre-combat checks and inspections.
- Move to the LD or point of departure.

3-39. Orders normally designate the time of attack as H-hour. This is normally when the main body crosses the LD. However, H-hour can also designate the time to implement a phase of an operation, such as an airborne or air assault phase. The headquarters planning the offensive operation specifies the term's exact meaning. This is usually a part of the unit's standard operating procedures (SOP).

FORMS OF MANEUVER

3-40. *Forms of maneuver* are distinct tactical combinations of fire and movement with a unique set of doctrinal characteristics that differ primarily in the relationship between the maneuvering force and the enemy. The Army has six forms of maneuver: envelopment, flank attack, frontal attack, infiltration, penetration, and turning movement. Combined arms organizations accomplish their assigned mission by synchronizing the contributions of all warfighting functions to execute these forms of maneuver. The commander generally chooses one form on which to build a course of action (COA). The higher commander rarely specifies the specific form of offensive maneuver. However, that higher commander's guidance and intent, along with the mission and any implied tasks, may impose constraints such as time, security, and direction of attack that narrow the forms of offensive maneuver to one alternative. Additionally, the AO's characteristics and the enemy's dispositions also help the commander determine the form of maneuver. A single operation may contain several forms of maneuver, such as a frontal attack to clear a security area followed by a penetration to create a gap in enemy defenses. Then, the commander might use a flank attack to expand that gap and destroy the enemy's first line of defense. (See FM 3-90 for a discussion of these forms of maneuver.)

COMMON OFFENSIVE PLANNING CONSIDERATIONS

3-41. Understanding, visualizing, describing, and directing are aspects of leadership common to all commanders. The tactical commander begins with a designated AO, identified mission, and available forces. The commander develops and issues planning guidance based on the commander's visualization in terms of the physical means to accomplish the mission.

3-42. The offense is basic to combat operations. Only a resolute offense, conducted at a high tempo and to great depth, attains the enemy's total destruction. The offense has a number of indisputable advantages. The attacker's principal advantage is possession of the initiative. Having the initiative allows a commander to select the time, place, and specific tactics, techniques, and procedures used by the attacking force. The attacker has the time and opportunity to develop a plan and to concentrate the effects of subordinate forces and thoroughly prepare conditions for success. The commander strikes the enemy in unexpected ways at unexpected times and places. The commander focuses on attacking the right combination of targets, not necessarily the biggest or the closest. These attacks are rapidly and violently executed, unpredictable in nature, and disorient the enemy. They enhance the commander's capability to impose the commander's will on the enemy and thus achieve a decisive victory.

3-43. The commander maintains momentum by rapidly following up attacks to prevent enemy recovery. The attacking commander denies the enemy commander any opportunity to adjust to friendly actions in spite of the enemy's desperate attempts to do so. The commander changes the attacking force's means and methods before the enemy can adapt. The tempo of friendly operations must be fast enough to prevent effective counteraction. The commander orchestrates unrelenting pressure by adjusting combinations to meet the offensive's ever-changing demands. The attacking force maintains relentless pressure and exploits gains to make temporary battlefield success permanent.

3-44. Each battle or engagement, even those occurring simultaneously as a part of the same campaign, has its own unique peculiarities, determined by the actual conditions of the situation. Contemporary combined arms warfare is characterized by the widespread application of highly accurate and lethal weapons, a high degree of tactical mobility, a dynamic nature, rapid situational changes, and the noncontiguous and large spatial scope of unit AOs. The commander first able to visualize the battlefield, understand the implications of existing friendly and enemy dispositions, and take effective action to impose the commander's will on the situation is most likely to enjoy tactical success. The planning considerations for the offense in paragraphs 3-45 through 3-118 also apply to the defense with situational appropriate modifications.

MISSION COMMAND

3-45. Commanders, assisted by their staffs, integrate numerous processes and activities within the headquarters and across the force as they exercise mission command. The commander's mission and intent determine the scheme of maneuver and the allocation of available resources. Paragraphs 3-46 through 3-56 highlight the importance of the operations process and team development during the conduct of offensive tasks. The other mission command tasks occur, but they do not require special emphasis. (See mission command doctrine for a discussion of the other mission command tasks.)

Operations Process

3-46. Commanders drive the operations process through their activities of understanding, visualizing, describing, directing, leading, and assessing the conduct of the primary offensive task. If few resources are available, the commander reduces the scope of the initial mission. For example, a commander could tell subordinates to clear their AOs of all enemy platoon-size and larger forces instead of clearing their areas of operations of all enemy forces, if those subordinates lack the time or forces needed to accomplish the latter task.

3-47. All offensive planning addresses the mission variables of METT-TC, with special emphasis on—

- Missions and objectives, to include task and purpose, for each subordinate element.
- Commander's intent.
- Enemy positions, obstacles, strengths, and capabilities.
- AOs for the use of each subordinate element with associated control graphics.
- Time the operation is to begin.
- Scheme of maneuver.
- Targeting guidance and high-payoff targets.
- Special tasks required to accomplish the mission.

- Risk.
- Options for accomplishing the mission.

Planning also addresses the prevention of unnecessary damage to property and disruption of the civilian population within the area of operations.

3-48. The commander and staff translate the unit's assigned mission into specific objectives for all subordinates, to include the reserve. These objectives can involve the conduct of any primary offensive task. If the primary offensive task assigned has associated forms, the commander may specify which form to use, but should minimize restrictions on subordinate freedom of action. ADRP 5-0 addresses the military decisionmaking process.

3-49. The fluid nature of combat requires the commander to guide the actions of subordinates during the execution phase. As part of their visualization process, commanders determine where they can best sense the flow of the operation so as to influence critical events through redirecting the effects of committed forces, changing priorities or support, or employing echelon reserves. This normally means that the commander is well forward in the echelon's combat formation, usually with the force designated to conduct the decisive operation. Once the unit conducting the decisive operation makes contact with the enemy, the commander quickly moves to the area of contact, assesses the situation, and directs appropriate aggressive actions to direct the continuation of the offensive operation.

3-50. In addition to assigning objectives, commanders at all echelons consider how they will exploit advantages that arise during the conduct of the offense and the seizure of intermediate and final objectives. The commander anticipates any requirements to shift the decisive operation or main effort during the offense to press the fight and keep the enemy off balance. The commander develops decision points to support these changes using both human and technical means—to include space and cyber systems—to validate decision points.

3-51. The commander exploits success by aggressively executing the plan, taking advantage of junior leader initiative, and employing trained units capable of rapidly executing standard drills. The echelon reserve also provides a flexible capability to exploit unforeseen advantages.

3-52. The commander retains the ability to rapidly concentrate force effects throughout the extent of the area of operations during the offense. This ability will also be critical to the commander when subordinate forces cross linear obstacles. Lanes and gaps resulting from combined arms breaching operations or occurring naturally typically are choke points. There is a tendency for each subordinate element to move out independently as it completes its passage through the choke point. This independent movement detracts from the ability of the whole force to rapidly generate combat power on the obstacle's far side.

3-53. Commanders at all levels will have to consider the presence of civilians within their areas of operations and determine the minimum essential stability tasks that have to be accomplished in their driving of the operations process. All units have some capability to conduct at least some stability tasks. All commanders must assess their unit's capabilities to conduct those minimum essential stability tasks required by the situation while still accomplishing their primary mission. These minimum essential stability tasks usually involve some aspects of civil control, civil security, and the restoration of essential services. Some subordinate supporting elements, such as engineers, medical, or civil affairs, may be assigned the primary role of conducting those minimum essential stability tasks required by the situation.

Team Development Between Commanders

3-54. Generally, commanders rely on others to follow and execute their intent. Turning their visualization of the offense into reality takes the combined efforts of many teams inside and outside the organization. Commanders build solid, effective teams by developing and training them. As part of the commander's task of team development, the commander has the authority to organize assigned or attached forces to best accomplish the mission based on the commander's concept of operations. The commander organizes subordinate units as necessary, assigns responsibilities, establishes or delegates appropriate command and support relationships, and establishes coordinating instructions. Sound organization provides for unity of effort, centralized planning, and decentralized execution. Unity of effort is necessary for effectiveness and

efficiency. Centralized planning is essential for controlling and coordinating the efforts of the forces. When organizing Army forces with multinational forces, simplicity and clarity are critical.

3-55. Subordinates work hard and fight tenaciously when they are well trained and sense that they are part of a first-rate team. Collective confidence comes from succeeding under challenging and stressful conditions, beginning in training prior to deployment. A sense of belonging derives from experiencing technical and tactical proficiency—first as individuals and later collectively. That proficiency expresses itself in the confidence team members have in their peers and their leaders. Many times that sense of belonging is enhanced by the conduct of social activities. Those social activities have to be tailored to the audience. What will motivate and inspire young Soldiers and junior noncommissioned officers may not have the same impact on field grade officers and senior noncommissioned officers. Ultimately, cohesive teams are the desired result. Effective organizations work as teams in synchronized ways to complete tasks and missions.

3-56. Successful delegation of authority involves convincing subordinates that they are empowered and have the freedom to act independently. This only comes from the subordinates' experience with the commander. Empowered subordinates understand that they bear more than the responsibility to get the job done. They have the authority to operate as they see fit, within the limits of commander's intent, assigned missions, task organization, and available resources. This helps them lead their people with determination.

MOVEMENT AND MANEUVER

3-57. Direct fire and close combat are inherent in maneuver. Movement is necessary to disperse and displace the force as a whole or in part when maneuvering. The commander maneuvers to avoid enemy strengths and to create opportunities to increase the effects of friendly fires. The commander secures surprise by making unexpected maneuvers, rapidly changing the tempo of ongoing operations, avoiding observation, and using deceptive techniques and procedures. The commander seeks to overwhelm the enemy with one or more unexpected blows before the enemy has time to react in an organized fashion. This occurs when the attacking force is able to engage the defending enemy force from positions that place the attacking force in a position of advantage with respect to the defending enemy force, such as engaging the enemy from a flanking position. Echelon security forces prevent the enemy from discovering friendly dispositions, capabilities, and intentions, or interfering with the preparations for the attack. Finally, the commander maneuvers to close with and destroy the enemy by close combat and shock effect. *Close combat* is warfare carried out on land in a direct-fire fight, supported by direct and indirect fires and other assets (ADRP 3-0). Close combat defeats or destroys enemy forces, or seizes and retains ground. Close combat encompasses all actions that place friendly forces in immediate contact with the enemy where the commander uses direct fire and movement in combination to defeat or destroy enemy forces or seize and retain ground.

3-58. A commander can overwhelm an enemy by the early seizing and retaining of key and decisive terrain that provides dominating observation, cover and concealment, and better fields of fire to facilitate the maneuver of friendly forces. If decisive terrain is present, the commander designates it to communicate its importance in the commander's concept of operations, first to the echelon staff and later to subordinate commanders. The friendly force must control decisive terrain to successfully accomplish its mission.

Combat Formations

3-59. **A combat formation is an ordered arrangement of forces for a specific purpose and describes the general configuration of a unit on the ground.** A commander can use seven different combat formations depending on the mission variables of METT-TC: column, line, echelon (left or right), box, diamond, wedge, and vee. Terrain characteristics and visibility determine the actual arrangement and location of the unit's personnel and vehicles within a given formation.

3-60. Combat formations allow a unit to move on the battlefield in a posture suited to the senior commander's intent and mission. A unit may employ a series of combat formations during the course of an attack; each has its advantages and disadvantages. Subordinate units within a combat formation can also employ their own combat formations, consistent with their particular situation. The commander considers the advantages and disadvantages of each formation in the areas of command, control, maintenance,

firepower orientation, ability to mass fires, and flexibility when determining the appropriate formation for a given situation. All combat formations use one or more of the three movement techniques: traveling, traveling overwatch, and bounding overwatch. (FM 3-90 describes these techniques.)

3-61. The commander's use of standard formations allows the unit to rapidly shift from one formation to another, giving additional flexibility when adjusting to changes in the mission variables of METT-TC. (This results from a commander rehearsing subordinates so that they can change formations using standard responses to changing situations, such as actions on contact.) By designating the combat formation planned for use, the commander—

- Establishes the geographic relationship between units.
- Indicates probable reactions once the enemy makes contact with the formation.
- Indicates the level of security desired.
- Establishes the preponderant orientation of subordinate weapon systems.
- Postures friendly forces for the attack.

The number of maneuver units available makes some formations, such as the box and the diamond, impractical for modular armored and infantry brigade combat teams, unless they are task organized with additional maneuver forces.

Limited-Visibility Conditions

3-62. The capability to fight at night and under limited-visibility conditions is an important aspect of conducting maneuver. The conduct of operations during conditions of limited visibility should be actively considered given the U.S. military's current advantage in night vision devices. The commander conducts field training exercises under limited-visibility conditions to ensure that the unit has this capability. Offensive actions conducted in these conditions can achieve surprise, gain terrain required for further operations, and negate enemy visual target acquisition capabilities while taking advantage of the friendly force's night-fighting capabilities.

3-63. All operations conducted in limited visibility or adverse weather require more planning and preparation time than normal. They require designating reference points and establishing navigation aids, such as GPS waypoints. The commander ensures that the night-vision and navigation systems required to maneuver under these conditions are available and functional. The commander rehearses these operations before execution to ensure complete integration and synchronization of the plan. Rehearsals also ensure that the Soldiers in subordinate units have the necessary skills to accomplish the mission. Any problem areas require resolution before beginning the operation.

3-64. Night operations degrade the capabilities of Soldiers and units. Cognitive abilities degrade more rapidly than physical strength and endurance. Night vision devices degrade user depth perception. This performance degradation occurs after as little as 18 hours of sustained work. (Additional information concerning the impact of extended operations can be found in FM 6-22.5.) The plan should allow time for both Soldiers and units to recuperate after conducting a night attack before being committed to other operations. The weight that Soldiers must carry also directly affects their endurance. The fighting load of Soldiers conducting night operations should be carefully configured and limited in weight.

Soldiers' Load

3-65. The load that Soldiers carry is an important planning consideration. How much Soldiers carry, how far, and in what configuration are critical mission considerations requiring command emphasis and inspection. Historical experience and research shows that Soldiers can carry 30 percent of their body weight and retain much of their agility, stamina, alertness, and mobility. For the average Soldier, who weighs 160 pounds, this means carrying 48 pounds. Success and survival in the offense demand that Soldiers retain these capabilities. If an attacking unit's Soldiers cannot move with stealth, agility, and alertness, the success of the mission is at risk. For each pound over 30 percent of body weight, the Soldier loses function. When the load exceeds 45 percent of body weight, or 72 pounds for the average Soldier, that individual's functional ability drops rapidly, and chances of becoming a casualty increase. Commanders must ensure that Soldiers carry no more than 30 percent of their body weight when in contact, or when

contact is expected. At other times, the Soldier's load should not exceed 72 pounds. Sometimes, conditions dictate that the Soldier's load must exceed this recommended weight. However, the commander and subordinate leaders must realize how that excess weight impacts unit effectiveness.

Assured Mobility

3-66. Assured mobility is a framework of processes, actions, and capabilities that assure the ability of a force to deploy, move, and maneuver where and when desired, without interruption or delay, to achieve the mission. The assured mobility fundamentals predict, detect, prevent, avoid, neutralize, and protect support the assured mobility framework. This framework is one means of enabling a force to achieve the commander's intent. Assured mobility emphasizes the conduct of proactive mobility, countermobility, and protection tasks in an integrated manner so as to increase the probability of mission accomplishment. While focused primarily on movement and maneuver, the assured mobility concept links to each warfighting function and both enables and is enabled by those functions. (See ATTP 3-90.4.)

Predict

3-67. Commanders and staffs must accurately predict potential obstacles to force mobility by analyzing the enemy's capabilities and tactics, techniques, and procedures. This involves understanding how the enemy will evolve in reaction to friendly force countermeasures. It also involves understanding how the effects of terrain and the effects of the population, such as vehicular traffic and dislocated civilians, will impact force mobility. This helps build the mobility portion of the common operational picture and facilitates decisionmaking.

Detect

3-68. Commanders and staffs use intelligence products and information collection assets to identify the location of natural and manmade obstacles and potential means the enemy can use to create obstacles. Commanders employ available information collection assets to detect enemy obstacle preparations and also identify areas where there are no or only limited obstacles to ground movement and maneuver. This knowledge can be obtained through sustained surveillance of an area. Commanders identify both actual and potential obstacles and propose solutions and alternate COAs to minimize or eliminate their potential impact.

Prevent

3-69. Commanders and staffs apply this fundamental by preventing civilian interference with operations and denying the enemy's ability to influence friendly mobility. This is accomplished by forces acting proactively to elicit local populace support, or at least non-interference, and to eliminate enemy countermobility capabilities before those capabilities can emplace or activate obstacles, and by mitigating the factors that result in natural obstacles to friendly force movement and maneuver. This may include the employment of information-related capabilities to decrease uncertainty among the population to build support for or acceptance of operations.

3-70. Prevention may also consist of aggressive action to destroy enemy assets and capabilities before they can be used to create obstacles. In recent operations this included disrupting terrorist bomb-making cells by all available means, such as cutting off their funding, eliminating safe houses where bombs can be constructed, jamming frequencies to prevent remote detonators from being triggered, and either capturing or killing members of these cells. Forces also apply this fundamental by conducting countermobility operations to shape enemy movement and maneuver that may affect friendly movement and maneuver. This includes denying the enemy the ability and opportunity to attack critical infrastructure that supports mobility, such as airfields, roads, and bridges; or that could result in an obstacle; or have an obstacle effect if destroyed, such as dams and industrial chemical production and storage facilities.

Avoid

3-71. If prevention fails, the commander will move or maneuver forces to avoid impediments to mobility, if this is viable within the scheme of maneuver. If detection efforts can tell the commander where the

enemy has not been, this frees up the unit to maneuver rapidly through those areas, even if they are not the most favorable movement routes.

Neutralize

3-72. Commanders and staffs plan to neutralize, reduce, or overcome obstacles and impediments as soon as possible to allow unrestricted movement of forces. The specific tactics, techniques, and procedures employed will depend on the mission variables of METT-TC, the rules of engagement, and where along the range of military operations the unit finds itself. For example, a small unit involved in major operations encountering surface-laid mines on a road in an urban area might attempt to destroy the mines in place using organic methods, such as aimed rifle or machinegun fire, after only minimal checks to reduce the danger to local civilians and accepting collateral damage to civilian buildings before proceeding on with its mission. That same unit encountering the same situation during the conduct of a peace-keeping operation would more likely secure the site, evacuate civilians from the area, and call for an explosive ordnance disposal team to disarm the mines in place to preclude any collateral damage.

Protect

3-73. Commanders and staffs plan and implement survivability and other protection measures that will prevent observation of the maneuvering force and thereby reduce the enemy's ability to engage or otherwise interfere with that force. This includes the use of combat formations and movement techniques. It may involve the use of electronic warfare systems—such as counter-radio controlled improvised explosive device electronic warfare systems, mine plows and rollers, and modifications to the rules of engagement. This may also include the conduct of countermobility missions to deny the enemy the capability to maneuver in certain directions and thereby provide additional protection to friendly maneuvering forces. It can also be as simple as altering patrol routes.

3-74. While engineers are the principal staff integrators for assured mobility, other staff sections play critical roles in ensuring the effective application and integration of mobility, countermobility, and protection tasks. In the case of amphibious operations, this would include naval forces that are responsible for assured mobility from amphibious shipping to beach and landing zone exits. These critical roles include providing information on threats to the routes. The senior engineer staff officer's role within assured mobility is similar to the role of the assistant chief of staff, intelligence (G-2) or the intelligence staff officer's (S-2's) integrating role with intelligence preparation of the battlefield. Ultimately, assured mobility is the commander's responsibility. (See engineer doctrine on assured mobility for more information.)

Mobility

3-75. *Mobility* is a quality or capability of military forces which permits them to move from place to place while retaining the ability to fulfill their primary mission (JP 3-17). *Mobility operations* are those combined arms activities that mitigate the effects of natural and man-made obstacles to enable freedom of movement and maneuver (ATTP 3-90.4). Mobility operations include these six primary tasks:

- Breaching operations.
- Clearing operations (areas and routes).
- Gap-crossing operations.
- Combat roads and trails.
- Forward airfields and landing zones.
- Traffic operations.

3-76. Mobility is necessary for successful offensive actions. Its major focus is to enable friendly forces to move and maneuver freely on the battlefield. The commander seeks the capability to move, exploit, and pursue the enemy across a wide front. When attacking, the commander concentrates the effects of combat power at selected locations. This may require the unit to improve or construct combat trails through areas where routes do not exist. The surprise achieved by attacking through an area believed to be impassable may justify the effort expended in constructing these trails. The force bypasses existing obstacles and

minefields identified before starting the offensive operation instead of breaching them whenever possible. Units mark bypassed minefields whenever the mission variables of METT-TC allow.

3-77. Maintaining the momentum of the offense requires the attacking force to quickly pass through obstacles as it encounters them. There is a deliberate effort to capture bridges, beach and port exits, and other enemy reserved obstacles intact. The preferred method of fighting through a defended obstacle is employing a hasty (in-stride) breach, because it avoids the loss of time and momentum associated with conducting a deliberate breach. The commander plans how and where subordinate forces conduct breaching operations. Commanders plan breaching operations using a reverse planning sequence from the objective back to the assembly area.

3-78. Rivers and other gaps remain major obstacles despite advances in high-mobility weapon systems and extensive aviation support. Wet gap crossings are among the most critical, complex, and vulnerable combined arms operations. A crossing is conducted as a hasty crossing and as a continuation of the attack whenever possible because the time needed to prepare for a gap crossing allows the enemy more time to strengthen the defense. The size of the gap, as well as the enemy and friendly situations, will dictate the specific tactics, techniques, and procedures used in conducting the crossing. Functional engineer brigades contain the majority of tactical bridging assets. Military police and chemical, biological, radiological, and nuclear (CBRN) assets may also be required.

3-79. Clearing operations are conducted to eliminate the enemy's obstacle effort or residual obstacles within an assigned area or along a specified route. A clearing operation is a mobility operation, and, as with most mobility operations, it is typically performed by a combined arms force built around an engineer-based clearing force. A clearing operation could be conducted as a single mission to open or reopen a route or area, or it may be conducted on a recurring basis in support of efforts to defeat a sustained threat to a critical route. (See engineer doctrine for additional information on mobility operations.)

Countermobility

3-80. *Countermobility operations* are those combined arms activities that use or enhance the effects of natural and manmade obstacles to deny an adversary freedom of movement and maneuver (FM 3-34). Countermobility operations help isolate the battlefield and protect attacking forces from enemy counterattack, even though force mobility in offensive actions normally has first priority. Obstacles provide security for friendly forces as the fight progresses into the depth of the enemy's defenses. They provide flank protection and deny the enemy counterattack routes. They assist friendly forces in defeating the enemy in detail and can be vital in reducing the amount of forces required to secure a given area. Further, they can permit the concentration of forces by allowing a relatively small force to defend a large AO. The commander ensures the use of obstacles is integrated with fires and fully synchronized with the concept of operations to avoid hindering the attacking force's mobility.

3-81. During visualization, the commander identifies avenues of approach that offer natural flank protection to an attacking force, such as rivers or ridgelines. Staff running estimates support this process. Flanks are protected by destroying bridges, emplacing minefields, and by using scatterable munitions to interdict roads and trails. Swamps, canals, lakes, forests, and escarpments are natural terrain features that can be quickly reinforced for flank security.

3-82. Countermobility operations during the offense must stress rapid emplacement and flexibility. Engineer support must keep pace with advancing maneuver forces and be prepared to emplace obstacles alongside them. Obstacles are employed to maximize the effects of restrictive terrain, such as choke points, or deny the usefulness of key terrain, since time and resources will not permit developing the terrain's full defensive potential. The commander first considers likely enemy reactions and then plans how to block enemy avenues of approach or withdrawal with obstacles. The commander also plans the use of obstacles to contain bypassed enemy elements and prevent the enemy from withdrawing. The plan includes obstacles to use upon identification of the enemy's counterattack. Speed and interdiction capabilities are vital characteristics of the obstacles employed. The commander directs the planning for air- and artillery-delivered munitions on enemy counterattack routes. The fire support system delivers these munitions in front of or on top of enemy lead elements once they commit to one of the routes. Rapid cratering devices and surface minefields provide other excellent capabilities.

3-83. Control of minefields and obstacles and accurate reporting to all units are vital. Obstacles will hinder both friendly and enemy maneuver. Control of obstacle initiation is necessary to prevent the premature activation of minefields and obstacles. (See FM 90-7 and FM 5-102 for information on obstacle integration and FM 3-34.210 for information on mine warfare.)

INTELLIGENCE

3-84. The task generate intelligence knowledge is a continuous, user-defined task driven by the commander. It begins before mission receipt and provides the relevant knowledge required for the conduct of operations. The information and intelligence obtained are refined into knowledge for use in intelligence preparation of the battlefield (IPB) and mission analysis. Information is obtained through intelligence reach, research, data mining, database access, academic studies, products, or materials, intelligence archives, open-source intelligence, and other information sources. Geospatial intelligence is of particular value during the IPB. Geospatial intelligence involves the exploitation and analysis of imagery and geospatial information to describe, assess, and visually depict physical features and geographically referenced activities on the earth. Geospatial intelligence consists of imagery, imagery intelligence, and geospatial information.

3-85. A commander uses the products of the IPB process to identify any aspect within the AO or area of interest that will affect how the friendly force accomplishes the mission. An *area of interest* is that area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory. This area also includes areas occupied by enemy forces who could jeopardize the accomplishment of the mission (JP 3-0).

3-86. The entire staff, led by the echelon intelligence staff, uses the IPB process to identify any aspects of the area of operations or area of interest that will affect enemy, friendly, and third party operations. The IPB process is collaborative in nature and requires information from all staff elements and some subordinate units. All staff and subordinate elements use the results and products of the IPB process for planning. (FM 2-01.3 describes the IPB process.)

3-87. The commander uses available assets to study terrain and confirm or deny the enemy's strengths, dispositions, and likely intentions, especially where and in what strength the enemy will defend. Indications of the location and composition of obstacles and the positioning of engineer assets may be key in determining where and when the enemy will defend. These assets also gather information concerning the civilian population within the AO to confirm or deny their numbers, locations, and likely intentions, especially with regard to staying in shelters or fleeing from combat operations.

3-88. By studying the terrain, the commander tries to determine the principal heavy and light avenues of approach to the objective. The commander also tries to determine the most advantageous area for the enemy's main defense, routes that the enemy may use to conduct counterattacks, and other factors, such as observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment (OAKOC). The attacking unit must continuously conduct information collection activities during the battle because it is unlikely that the commander has complete knowledge of the enemy's intentions and actions.

3-89. The echelon intelligence and operations officers, in coordination with the rest of the staff, develop a synchronized and integrated information collection plan that satisfies the commander's maneuver, targeting, and information requirements. A commander's information requirements are dictated by the mission variables of METT-TC, but commonly include—

- Locations, composition, equipment, strengths, and weaknesses of the enemy force.
- Locations of obstacles, prepared fighting positions, enemy engineer units, earth moving equipment, breaching assets, and barrier material.
- Probable locations of enemy reconnaissance objectives.
- Locations of possible enemy assembly areas.
- Locations of enemy indirect-fire weapon systems and units and weapons of mass destruction.
- Locations of gaps, assailable flanks, and other enemy weaknesses.
- Locations of areas for friendly and enemy air assault and parachute assault operations.
- Locations of enemy air defense gun and missile units and air defense radars.

- Locations of enemy electronic warfare units.
- Effects of weather, terrain, and obstacles on current and projected operations.
- Areas, structures, capabilities, organizations, people, and events (ASCOPE) related information about civilians located within the unit's area of operations.
- Likely withdrawal routes for enemy forces.
- Anticipated timetable schedules for the enemy's most likely COA and other probable COAs.
- Locations of enemy command and control and intelligence nodes and reconnaissance and surveillance systems and the frequencies used by the information systems linking these systems.
- Locations of enemy sustainment assets.

(These information requirements apply as much to the defense as they do to the offense.) If friendly information collection assets cannot answer the commander's information requirements, the echelon intelligence staff can send a request for information to higher and adjacent units, the commander can commit additional resources, or the commander can decide to execute the offensive operation with the current information.

3-90. The IPB process contributes to the protection warfighting function by developing products that help the commander protect subordinate forces, including identification of key terrain features, manmade and natural obstacles, trafficability and cross-country mobility analysis, line of sight overlays and situation templates. Line of sight overlays help protect the force. If an enemy cannot observe the friendly force, the enemy cannot engage the friendly force with direct-fire weapons. Situation templates also help protect the force. If a commander knows how fast an enemy force can respond to the unit's offensive actions, unit operations can be sequenced, so they occur at times and places where the enemy cannot respond effectively. This occurs through determining enemy artillery range fans, movement times between enemy reserve assembly area locations and advancing friendly forces, and other related intelligence items.

FIRES

3-91. The targeting process ensures the collective and coordinated use of Army indirect fires, air and missile defense, and joint fires to gain and maintain fire superiority throughout all offensive actions. The commander uses a variety of methods and assets to achieve the desired effects on targeted enemy forces and thereby to enable friendly maneuver.

Army Indirect Fires and Joint Fires

3-92. Using preparation fires, counterfire, suppression and destruction fires, and electronic warfare assets provide the commander with numerous options for gaining and maintaining fire superiority. The commander uses long-range artillery systems (cannon, rocket, and missile) and joint fires (such as naval surface fire support, air support—rotary and fixed wing, and electronic attack) to engage the enemy throughout the depth of the enemy's defensive positions. (See fires doctrine for additional information on the use of fires in the offense.)

3-93. A U.S. Air Force (USAF) tactical air control party (TACP) is collocated with the fires cell at the brigade combat team (BCT) and fires brigade main command posts. The USAF air liaison officer (ALO) leading the TACP is the BCT and fires brigade commanders' principal advisor on air support. The ALO leverages the expertise of the TACP with linkages to higher echelon TACPs to plan, prepare, execute, and assess air support for brigade operations. The ALO also maintains situational understanding of the total air support picture. The brigade's aligned TACP is resourced to support brigade operations from that unit's tactical command post as well as the main command post. The TACP's joint terminal attack controllers may be assisted by joint fires observers. Joint fires observers may assist joint terminal attack controllers in the conduct of type 2 or 3 close air support (CAS).

3-94. Fire support planning is the continuing process of analyzing, allocating, and scheduling fires. It determines how fires are used, what types of targets to attack, what collection assets are used to acquire and track those targets, what assets are used to attack the target, and what assets verify effects on the target. This planning does not stop at the objective or LOA. The commander gives attention to flanks and potential

enemy hide positions. Coordination among echelon fire cells and the proper use of fire support coordination measures are critical to prevent fratricide.

3-95. The fire support coordinator (FSCOORD) or chief of fires (depending on the echelon) integrates fires into the unit's scheme of maneuver for the commander. The FSCOORD or chief of fires supports the unit's maneuver by planning preparation fires, harassing fires, interdiction fires, suppressive and destruction fires, and deception fires. These fires can be time- or event-driven. The FSCOORD or chief of fires plans fires on known and likely enemy positions, which may include templated enemy positions. Successful massing of indirect fires and fixed-wing attacks requires a fires cell that is proficient in the tracking of friendly indirect fire asset positions and movements and knows the maximum ordinate requirements. It also requires a TACP proficient in the timely execution of close air support. Fire planning reconciles top-down planning and bottom-up refinement.

3-96. As the attacking force moves forward, preparatory fires sequentially neutralize, suppress, or destroy enemy positions. However, the commander must weigh the probable effects of preparation fires against achieving a greater degree of surprise against the enemy, especially under conditions of limited visibility, in determining whether to fire an artillery preparation. The commander may decide to employ terminally guided munitions to destroy select high-payoff targets or use these munitions in mass against part of the enemy defense to facilitate a breach and negate the requirement for long-duration preparation fires using area fire munitions.

3-97. The commander may choose to make the initial assault without using preparation fires to achieve tactical surprise. However, fires are always planned to support each unit's operations, so that they are available if needed. Preparation fires are normally high-volume fires delivered over a short period of time to maximize surprise and shock effect. These preparation fires also include the conduct of electronic warfare operations. They can continue while ground maneuver elements are moving. This consideration applies to all offensive tasks.

3-98. Artillery and mortars must occupy positions that are well forward and still within supporting range of the flanks or maneuver forces to provide responsive indirect fires. The commander considers the effect that movement by echelon or battery has on the amount of fire support provided. The commander should support the unit's decisive operation with priority of fires. The main effort prior to the initiation of the decisive operation will have priority of fires, if the operation contains phases. The commander places coordinated fire lines (CFLs) as close as possible to friendly maneuver forces and plans on-order CFLs on phase lines so that they can be quickly shifted as the force moves. This allows the expeditious engagement of targets beyond the CFL by the maximum number of available systems.

3-99. The effective assignment of Army forward observers, joint forward observers, and target acquisition assets to quick-fire or exclusive nets also provides responsive fires. Quick-fire nets allow the lead observers to associate directly with specific field artillery or mortar fire units. These kinds of communication arrangements enhance responsiveness through streamlined net structures and focused priorities. Communications planning should also include the need for communication nets for the clearing of targets for rotary- and fixed-wing attacks.

3-100. The commander employs information capabilities to support the offense. As the friendly force moves through the enemy's security area and closes into the enemy's main defensive positions, electronic warfare jamming resources concentrate on neutralizing enemy fire control, target acquisition, and intelligence-gathering systems. The commander uses military deception to prevent the enemy from determining the location and objective of the friendly decisive operation. In addition, intelligence sensors continue to provide intelligence and guidance to both friendly jammers and lethal indirect fire weapon systems, so attacking units can destroy enemy command and control nodes, reconnaissance and surveillance assets, artillery, and other high-value targets. The commander synchronizes the timing and conduct of these offensive actions so that they achieve maximum effectiveness.

Air and Missile Defense

3-101. A ground force's primary air defense systems are joint fighter aircraft, such as today's F-22 and F-18s, conducting offensive counter-air operations operated by the joint force air component commander (JFACC). During the offense, the commander directs the positioning of available organic or supporting

radars in those locations where they can best initially support the unit's attack. The selection of those positions reflects a risk assessment designed to preclude their early loss to enemy action. The air defense and airspace management (ADAM) element in the unit staff ensures that it has communications with the appropriate air and missile defense (AMD) organization's command post. That AMD command post will provide additional information to the supported unit to expand the fidelity of the air picture, to include information on the engagement of air threats by JFACC and Army Patriot air defense systems and short range air defense. The attacking unit concentrates on conducting passive air defense measures during its offensive actions. If attacked by enemy aerial systems in AAs, attack positions, or while moving, the unit disperses and conducts small arms air defense. The commander at each echelon establishes air defense priorities based on the concept of operations, scheme of maneuver, air situation, and the air defense priorities established by higher headquarters. If the commander has Army air defense systems in direct support of the attack, their coverage is generally weighted toward the unit's decisive operation and establishes a protective corridor over the terrain traversed by the subordinate unit or units conducting that decisive operation. Command of all air defense assets requires complete and timely communications to ensure proper weapon control status for the protection of friendly air support assets.

3-102. Passive air defense measures are an essential part of air and missile defense planning at all levels. All units conduct passive actions in conjunction with their assigned missions. Passive air defense measures should be included in planning at all levels, and all Army units should conduct passive air defense in conjunction with their primary mission. Passive actions reduce the effectiveness of the enemy air threat.

3-103. Targets selected to support echelon tactical air defense efforts include the following—

- Enemy unmanned aircraft systems.
- Enemy rotary- and fixed-wing aircraft.
- Enemy facilities supporting enemy air operations, such as airfields, launch sites, logistics support facilities, forward arming and refueling points, and aerial command and control sites.

These facilities are normally engaged by maneuver and fire support elements and not air defense artillery units. (See air and missile defense doctrine for additional information on using active and passive air defense measures.)

SUSTAINMENT

3-104. The objective of sustainment in the offense is to assist the tactical commander in maintaining momentum. The commander attempts to take advantage of windows of opportunity and execute an offensive task with minimum advance warning time. Therefore, sustainment—logistics, personnel services, and health service support—planners and operators must anticipate these events and maintain the flexibility to support the offensive plan accordingly. A key to success in the offense is the ability to anticipate the requirement to push support forward, specifically in regard to ammunition, fuel, replacements, and water. Sustainment commanders must act, rather than react, to support requirements. The existence of habitual support relationships facilitates the ability to anticipate.

Logistics

3-105. Logistics maintains the momentum of the attack by delivering supplies as far forward as possible. The commander can use throughput distribution and preconfigured packages of essential items to help maintain offensive momentum and tempo. The commander examines the unit's basic load to determine its adequacy to support the operation. The commander determines the combat load, the supplies carried by individual Soldiers and combat vehicles. The unit's logistics load consists of what remains of the unit's basic load once the combat load is subtracted. Unit tactical vehicles carry the logistics load. The commander also determines the supplies required for likely contingencies. The commander determines the amount of cross-loading of supplies required by the situation to prevent all of one type of supply from being destroyed by the loss of a single system.

3-106. Logistics units and materiel remain close to the maneuver force to ensure short turnaround time for supplies and services. This includes uploading as much critical materiel—such as petroleum, oils, and lubricants (POL) and ammunition—as possible and coordinating to preclude attempted occupation of a

piece of terrain by more than one unit. The commander makes decisions regarding the risk that logistics preparations for the attack will be detected by enemy forces and give indications of the unit's tactical plans.

3-107. The availability of adequate supplies and transportation to sustain an operation becomes more critical as it progresses. Supply lines of communications (LOCs) are strained, and requirements for repair and replacement of weapon systems increase. Requirements for POL increase because of the distance combat vehicles of the maneuver force are likely to travel. Sustainment units in direct support of maneuver units must be as mobile as the forces they support. One way to provide continuous support is to task organize elements of sustainment units or complete sustainment units with their supported maneuver formations as required by the mission variables of METT-TC. BCTs contain organic support battalion and forward support companies for this reason.

3-108. The variety and complexity of offensive tasks requires the Army to establish a flexible and tailorable transportation system. There may be a wide dispersion of forces and lengthening of LOCs. Required capabilities include movement control, in-transit visibility of supplies being carried, terminal operations, and mode operations.

3-109. Field maintenance assets move as far forward as consistent with the tactical situation to repair inoperable and damaged equipment and to return it to battle as quickly as possible. Crews continue to perform preventive checks and services as modified for the climate and terrain. Battle damage assessment and repair may be critical to sustaining the offense. Crews as well as maintenance and recovery teams conduct battle damage assessment and repair to rapidly return disabled equipment for battlefield service by expediently fixing, bypassing, or using field expedient components. Battle damage assessment and repair restores the minimum essential combat capabilities necessary to support a specific combat mission or to enable the equipment to self-recover.

3-110. Establishing aerial resupply and forward logistics bases may be necessary to sustain maneuver operations such as exploitation and pursuit conducted at great distance from the unit's sustaining base. The unit or support activity at the airlift's point of origin is responsible for obtaining the required packing, shipping, and sling-load equipment. It prepares the load for aerial transport, prepares the pickup zone, and conducts air-loading operations. The unit located at the airlift destination is responsible for preparing the landing zone to accommodate aerial resupply and for receiving the load.

3-111. Raids conducted by ground maneuver forces within the depths of the enemy's support areas tend to be audacious, high-speed, and of short duration. Logistics support is minimal; units carry as much POL and ammunition as possible, taking advantage of any captured enemy supplies. Once the raiding force crosses its LD, only limited, emergency aerial resupply of critical supplies and aeromedical evacuation are feasible because of the absence of a secure ground LOC. The commander must thoroughly plan for aerial resupply of the raiding force, since it entails greater risk than normal operations. Under these conditions, units destroy damaged equipment that is unable to maintain the pace of the operation.

Health Service Support

3-112. The burden on medical resources increases due to the intensity of the offense and the increased distances over which support is required as the force advances. The commander reallocates medical resources as the tactical situation changes. Medical units can anticipate large numbers of casualties in a short period of time due to the capabilities of modern conventional weapons and the employment of weapons of mass destruction. These mass casualty situations can exceed the capabilities of organic and direct support medical assets to effectively treat the numbers of casualties being sustained. To prevent this from occurring, planners should anticipate this possibility and coordinate with area support medical units to help absorb the acute rise in battlefield injuries. Additionally, units should plan and rehearse nonstandard casualty evacuation procedures. Careful planning and coordination will ensure that the standard of medical care for injured Soldiers is not compromised. Effective management of mass casualty situations is dependent on established and rehearsed mass casualty plans and detailed medical planning. There are a number of other variables which can ensure the success of a unit's mass casualty response plan. These include, but are not limited to—

- Coordination and synchronization of additional medical support and augmentation.
- Quickly locating the injured and clearing them from the battlefield.

- Providing effective emergency medical treatment for the injured.
- Accurate triage and rapid medical evacuation of the injured to medical treatment facilities at the next higher role of care.

PROTECTION

3-113. The fluidity and rapid tempo of the offense pose challenges in the protection of friendly assets. The forward movement of units is critical to the commander's maintaining the initiative necessary for successful offensive actions. Denying the enemy a chance to plan, prepare, and execute an effective response to friendly offensive actions through maintaining a high operational tempo is a key means a commander employs to ensure the survivability of the force. Techniques for maintaining a high offensive tempo include using multiple routes, dispersion, highly mobile forces, piecemeal destruction of isolated enemy forces, scheduled rotation and relief of forces before they culminate, and wise use of terrain. The exact techniques employed in a specific situation must reflect the mission variables of METT-TC.

3-114. The commander protects subordinate forces to deny the enemy the capability to interfere with their ongoing operations. That protection also meets the commander's legal and moral obligations to the organization's Soldiers. To help protect the force, the commander ensures that all protection tasks are addressed during the unit's planning, preparation, and execution while constantly assessing the effectiveness of those protection measures. Paragraphs 3-115 through 3-118 highlight areas of special emphasis within the protection warfighting function during the conduct of offensive tasks. (See protection and medical doctrine for a discussion of all protection tasks.)

Survivability Operations

3-115. *Survivability* includes all aspects of protecting personnel, weapons, and supplies while simultaneously deceiving the enemy (JP 3-34). The commander normally considers the impact of constructing protective emplacements for artillery and sustainment concentrations as part of the planning process. Units do not employ protective positions in the offense as extensively as they do in the defense. However, the commander may require the hardening of key mission command facilities, especially those with detectable electronic signatures. Maneuver units construct as many fighting positions as possible whenever they halt or pause during the conduct of offensive tasks. They improve existing terrain by cutting reverse-slope firing shelves or slots when possible. (See engineer doctrine for more information on constructing protective positions and the use of camouflage, cover, and concealment.)

3-116. While survivability is an important engineer task, all units have an inherent responsibility to improve their positions, whether the units are located in fighting positions or on a base. Survivability consists of four areas designed to focus efforts in mitigating friendly losses to hostile actions or environments: mobility; situational understanding; hardening; and camouflage, concealment, and decoys.

Internment and Resettlement Operations

3-117. During the conduct of all offensive tasks the unit can expect to accumulate a sizeable number of detainees. Their classification will vary according to the operational environment. The unit protection cell must work with the sustainment cell so that the necessary resources are made available to construct and operate internment facilities for the number of detainees projected to be acquired during the conduct of the mission. The actual number of detainees has to be monitored closely to avoid devoting too many or too few resources to the performance of internment operations.

3-118. Individual Soldiers have to be reminded of the proper handling of detainees during their initial capture by small units. It is at these dispersed locations where Soldiers are under extreme stress that detainee abuse is most likely to occur. Military police Soldiers trained in internment and resettlement will probably not be at these capture sites. (See military police doctrine for additional information on internment and resettlement.)

TRANSITION

3-119. A transition occurs when the commander makes the assessment that the unit must change its focus from one element of decisive action to another. Paragraphs 3-120 through 3-122 explain why a commander primarily conducting offensive tasks would transition to a focus on defensive tasks and describe techniques that a commander can use to ease the transition.

3-120. A commander halts the offense only when it results in complete victory and the end of hostilities, reaches a culminating point, or the commander receives a change in mission from a higher commander. This change in mission may be a result of the interrelationship of the other instruments of national power, such as a political decision.

3-121. All offensive actions that do not achieve complete victory reach a culminating point when the balance of strength shifts from the attacking force to its opponent. Usually, offensive actions lose momentum when friendly forces encounter heavily defended areas that cannot be bypassed. They also reach a culminating point when the resupply of fuel, ammunition, and other supplies fails to keep up with expenditures, Soldiers become physically exhausted, casualties and equipment losses mount, and repairs and replacements do not keep pace with losses. Because of enemy surprise movements, offensive actions also stall when reserves are not available to continue the advance, the defender receives reinforcements, or the defender counterattacks with fresh troops. Several of these causes may combine to halt an offense. When this occurs, the attacking unit can regain its momentum, but normally this only happens after difficult fighting or after an operational pause.

3-122. The commander plans a pause to replenish combat power and phases the operation accordingly, if the commander cannot anticipate securing decisive objectives before subordinate forces reach their culminating points. Simultaneously, the commander attempts to prevent the enemy from knowing when friendly forces become overextended.

TRANSITION TO DEFENSE

3-123. Once offensive actions begin, the attacking commander tries to sense when subordinates reach, or are about to reach, their respective culminating points. Before they reach this point, the commander must transition to a focus on the defense. The commander has more freedom to choose where and when to halt the attack, if the commander can sense that subordinate forces are approaching culmination. The commander can plan future activities to aid the defense, minimize vulnerability to attack, and facilitate renewal of the offense as the force transitions to branches or sequels of the ongoing operation. For example, some of the commander's subordinate units may move into battle positions before the entire unit terminates its offensive actions to start preparing for ensuing defensive tasks. The commander can echelon sustainment assets forward to establish a new echelon support area. This may also serve to prevent overburdening the extended lines of communications that result from advances beyond eight hours of travel from the echelon support area.

3-124. A lull in combat operations often accompanies a transition. The commander cannot forget about stability tasks because the civilian populations of the unit's AO tend to come out of their hiding positions and request assistance from friendly forces during these lulls. The commander must consider how to minimize civilian interference with the force's combat operations while protecting civilians from future hostile actions in accordance with the law of armed conflict. The commander must also consider the threat civilians pose to the force and its operations, if enemy agents or saboteurs are part of the civilian population.

3-125. A commander anticipating the termination of unit offensive actions prepares orders that include the time or circumstances under which the current offense transitions to the defense, the missions and locations of subordinate units, and control measures. As the unit transitions from an offensive focus to a defensive focus, the commander—

- Maintains contact and surveillance of the enemy, using a combination of reconnaissance units and surveillance assets to develop the information required to plan future actions.
- Establishes a security area and local security measures.

- Redeploys artillery assets to ensure the support of security forces.
- Redeploys forces for probable future employment.
- Maintains or regains contact with adjacent units in a contiguous AO and ensures that units remain capable of mutual support in a noncontiguous AO.
- Shifts the engineer emphasis from mobility to countermobility and survivability.
- Consolidates and reorganizes.
- Explains the rationale for transitioning from the offense to the unit's Soldiers.

3-126. The commander conducts any required reorganization and resupply concurrently with other transition activities. This requires a transition in the sustainment effort. It shifts in emphasis from ensuring the force's ability to move forward (POL and forward repair of maintenance and combat losses) to ensuring the force's ability to defend on its chosen location (forward stockage of construction, barrier, and obstacle material, and ammunition). A transition is often a time when units can perform equipment maintenance. Additional assets may also be available for casualty evacuation and medical treatment because of a reduction in the tempo.

3-127. The commander should not wait too long to transition from the offense to the defense as subordinate forces approach their culminating points. Without prior planning, transitioning to defensive actions after reaching a culminating point is extremely difficult. Defensive preparations are hasty, and forces are not adequately disposed for defense. Defensive reorganization requires more time than the enemy will probably allow. Usually, attacking forces are dispersed, extended in depth, and weakened in condition. Moreover, the shift to the defense requires a psychological adjustment. Soldiers who have become accustomed to advancing must now halt and fight defensively—sometimes desperately—on new and often unfavorable terms.

3-128. A commander can use two basic techniques when transitioning to the defense. The first technique is for the leading elements to commit forces and push forward to claim enough ground to establish a security area anchored on defensible terrain. The main force moves forward or rearward as necessary to occupy key terrain and institutes a hasty defense that progresses into a deliberate defense as time and resources allow. The second technique is to establish a security area generally along the unit's final positions, moving the main body rearward to defensible terrain. The security force thins out and the remaining force deploys to organize the defense. In both methods, the security area should be deep enough to keep the main force out of the range of enemy medium artillery and rocket systems.

3-129. In the first technique, the security area often lacks depth because the force lacks sufficient combat power to seize required terrain. In the second technique, enemy forces will probably accurately template the forward trace of friendly units and engage them with artillery and other fire support systems. These actions often result in the loss of additional friendly Soldiers and equipment and the expenditure of more resources.

3-130. If a commander determines that it is necessary to break off an offensive operation and conduct a retrograde operation, subordinate units typically conduct an area defense from their current locations until their activities can be synchronized to conduct the retrograde operation. The amount of effort expended in establishing the area defense depends on the specific mission variables of METT-TC currently prevailing.

TRANSITION TO STABILITY

3-131. At some point in time the unit will probably transition from one phase of the major operations or campaign plan to another and begin executing a sequel to its previous operations order. The end of the offense action may not be the decisive act. The conduct of stability tasks may be the decisive operation in the major operation or campaign. The transition to a focus on stability tasks cannot be an afterthought. Setting the conditions for stability operations may have significant impact on the planning and execution of offensive tasks.

3-132. It is likely that a significant reorganization of the unit will occur to introduce those capabilities required by the changes in the mission variables of METT-TC. Depending on the specific operational environment the unit finds itself in, the appropriate official departmental publications dealing with other missions should be referenced to refresh previous training and education in those subjects. The mission

command and protection functions remain important because it is likely that some Soldiers may want to relax discipline and safety standards as the stress of active offensive actions disappears.

3-133. During major combat operations, the commander transitions to a stability focus, if the unit's offensive actions are successful in destroying or defeating the enemy and the situation makes a focus on defensive actions inappropriate. The commander's concept of operations and intent drive the design of and planning for the conduct of stability tasks. Generally, a tactical commander will focus on meeting the immediate essential service and civil security needs of the civilian inhabitants of the area of operations in coordination with any existing host nation government and nongovernmental organizations before addressing the other three primary stability tasks. Also, the commander will probably change the rules of engagement, and these rules must be transmitted down to the squad and individual Soldier level.

3-134. When involved in other missions, such as peace operations, irregular warfare, and military engagement, unit offensive actions normally are closely related to the movement to contact tasks of search and attack or cordon and search. Offensive actions in these other types of tasks will normally employ restrictive rules of engagement throughout the mission, regardless of the dominate type of action at any specific moment. When executing tasks within these other missions, the emphasis on the stability element is much more dominate than the defensive element of decisive action.

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Chapter 4

The Defense

While the offensive element of combat operations is more decisive, the defense is the stronger element. However, the conduct of defensive tasks alone normally cannot achieve a decision. Their purpose is to create conditions for a counteroffensive that allows Army forces to regain the initiative. Other reasons for conducting defensive actions include—

- Retaining decisive terrain or denying a vital area to the enemy.
- Attriting or fixing the enemy as a prelude to offensive actions.
- Surprise action by the enemy.
- Increasing the enemy's vulnerability by forcing the enemy commander to concentrate subordinate forces.

4-1. A *defensive task* is a task conducted to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability tasks (ADRP 3-0). While the offensive element of combat operations is more decisive, the defense is the stronger element. The inherent strengths of the defense include the defender's ability to occupy positions before the attack and use the available time to prepare the defenses. The defending force ends its defensive preparations only when it retrogrades or begins to engage the enemy. Even during combat, the defending force takes the opportunities afforded by lulls in the action to improve its positions and repair combat damage. The defender does not wait passively to be attacked. The defender aggressively seeks ways of attriting and weakening attacking enemy forces before the initiation of close combat. The defender maneuvers to place the enemy in a position of disadvantage and attacks the enemy at every opportunity, using fires, electronic warfare, and joint assets, such as close air support. The static and mobile elements of the defense combine to deprive the enemy of the initiative. The defender contains the enemy while seeking every opportunity to transition to the offense.

PURPOSES OF THE DEFENSE

4-2. Commanders choose to defend to create conditions for a counteroffensive that allows Army forces to regain the initiative. Other reasons for conducting a defense include to retain decisive terrain or deny a vital area to the enemy, to attrit or fix the enemy as a prelude to the offense, in response to surprise action by the enemy, or to increase the enemy's vulnerability by forcing the enemy to concentrate forces.

CHARACTERISTICS OF THE DEFENSE

4-3. A feature of the defense is a striving to regain the initiative from the attacking enemy. The defending commander uses the characteristics of the defense—disruption, flexibility, maneuver, mass and concentration, operations in depth, preparation, and security—to help accomplish that task.

DISRUPTION

4-4. Defenders disrupt the attackers' tempo and synchronization with actions designed to prevent them from massing combat power. Commanders employ disruptive actions to unhinge the enemy's preparations and attacks. Disruption methods include misdirecting or destroying enemy reconnaissance forces, breaking up formations, isolating units, and attacking or disrupting systems. Defenders never allow attackers to fully prepare. They use spoiling attacks before enemies can focus combat power and counterattack before the attacking enemy can consolidate any gains. Defenders target command electronic warfare assets against enemy command and control systems and constantly disrupt enemy forces in depth.

FLEXIBILITY

4-5. The conduct of the defense requires flexible plans. Commanders focus planning on preparations in depth, use of reserves, and the ability to shift the main effort. Commanders add flexibility by designating supplementary positions, designing counterattack plans, and preparing to counterattack.

MANEUVER

4-6. Maneuver allows the defender to take full advantage of the area of operations and to mass and concentrate when desirable. Maneuver, through movement in combination with fire, allows the defender to achieve a position of advantage over the enemy to accomplish the mission. It also encompasses defensive actions such as security and support area operations.

MASS AND CONCENTRATION

4-7. Defenders seek to mass the effects of overwhelming combat power where they choose and shift it to support the decisive operation. Commanders retain and, when necessary, reconstitute a reserve and maneuver to gain local superiority at the point of decision. Defending commanders may surrender some ground to gain time to concentrate the defending force's effects.

4-8. Commanders accept risk in some areas to mass effects elsewhere. Obstacles, security forces, and fires can assist in reducing risk. Since concentrating forces increases the threat of large losses from weapons of mass destruction, commanders use deception and concealment to hide any necessary force concentrations. They also protect their forces with air and missile defenses.

OPERATIONS IN DEPTH

4-9. Simultaneous application of combat power throughout the area of operations improves the chances for success while minimizing friendly casualties. Quick, violent, and simultaneous action throughout the depth of the defender's area of operations can hurt, confuse, and even paralyze an enemy force just as that enemy force is most exposed and vulnerable. Such actions weaken the enemy's will and do not allow any early enemy successes to build the confidence of the enemy's soldiers and leaders. Operations in depth prevent the enemy from gaining momentum in the attack. Synchronization of decisive, shaping, and sustaining operations facilitates mission success.

PREPARATION

4-10. The defense has inherent strengths. The defender arrives in the area of operations before the attacker and uses the available time to prepare. Defenders study the ground and select positions that allow the massing of fires on likely approaches. They combine natural and manmade obstacles to canalize attacking forces into engagement areas. Defending forces coordinate and rehearse actions on the ground, gaining intimate familiarity with the terrain. They place security, intelligence, and reconnaissance forces throughout the area of operations. These preparations multiply the effectiveness of the defense. Commanders continue defensive preparations in depth, even as the close engagement begins.

SECURITY

4-11. Commanders secure their forces principally through protection, military deception, inform and influence activities, and cyber electromagnetic activities. Security operations prevent enemy intelligence, surveillance, and reconnaissance assets from determining friendly locations, strengths, and weaknesses. These measures also provide early warning and early and continuously disrupt enemy attacks. Protection efforts preserve combat power. Military deception and cyber electromagnetic activities inaccurately portray friendly forces, mislead enemy commanders, and deny those same enemy commanders the ability to use cyberspace and the electromagnetic spectrum. These measures all contribute to the defender's security.

DEFENSIVE TASKS

4-12. There are three basic defensive tasks—area defense, mobile defense, and retrograde. These apply to both the tactical and operational levels of war, although the mobile defense is more often associated with the operational level. These three tasks have significantly different concepts and pose significantly different problems. Therefore, each defensive task must be dealt with differently when planning and executing the defense. Although the names of these defensive tasks convey the overall aim of a selected defense, each typically contains elements of the other and combines static and mobile elements.

4-13. 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 mission variables of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC).

AREA DEFENSE

4-14. **The *area defense* is a defensive task that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright.** 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 engagement areas, possibly supplemented by a counterattack. The reserve may or may not take part in the decisive operation. The commander can use the 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. Units at all echelons may use an area defense in conjunction with pursuit to transition from a focus on the conduct of defensive tasks or offensive tasks to a focus on the conduct of stability tasks.

MOBILE DEFENSE

4-15. **The *mobile defense* is a defensive task that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force.** The mobile defense focuses on defeating or destroying the enemy by allowing enemy forces to advance to a point where they are exposed to a decisive counterattack by the striking force. **The *striking force* is a dedicated counterattack force in a mobile defense constituted with the bulk of available combat power.** A fixing force supplements the striking force. The commander uses the 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.

4-16. A mobile defense requires an area of operations with considerable depth. The commander must be able to shape the battlefield, causing an enemy force to overextend its lines of communication (LOCs), expose its flanks, and dissipate its combat power. Likewise, the commander must be able to move friendly forces around and behind the enemy force targeted to be cut off and destroyed. Divisions and larger formations normally execute mobile defenses. However, brigade combat teams (BCTs) and maneuver battalions may participate in a mobile defense as part of the fixing force or the striking force.

RETROGRADE

4-17. **The *retrograde* is a defensive task that involves organized movement away from the enemy.** The enemy may force these operations, 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.

4-18. The three forms of the retrograde are delay, withdrawal, and retirement. A *delaying operation* is an operation in which a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on the enemy without, in principle, becoming decisively engaged (JP 3-04). In delays, units yield ground to gain time while retaining flexibility and freedom of action to inflict the maximum damage on the enemy. A *withdrawal operation* is a planned retrograde operation in which a force in contact disengages from an enemy force and moves in a direction away from the enemy

(JP 1-02). Withdrawing units, whether all or part of a committed force, voluntarily disengage from the enemy to preserve the force or release it for a new mission. **A retirement is a form of retrograde in which a force out of contact moves away from the enemy.** In each form of the retrograde, a force not in contact with the enemy moves to another location—normally by a tactical road march. In all retrograde operations, firm control of friendly maneuver elements is a prerequisite for success.

COMMON DEFENSIVE CONTROL MEASURES

4-19. The commander controls the defense by using control measures to provide the flexibility needed to respond to changes in the situation and allow the defending commander to rapidly concentrate combat power at the decisive point. In addition to the control measures introduced in the previous chapter on the offense, control measures that a commander conducting a defense employs include designating the security area, the main battle area (MBA) with its associated forward edge of the battle area (see paragraph 4-34), and the echelon support area. The commander can use battle positions and additional direct fire control and fire support coordination measures (FSCMs) in addition to other control measures found in ADRP 1-02 to further synchronize the employment of combat power. The commander designates disengagement lines to trigger the displacement of subordinate forces. These common defensive control measures are discussed in alphabetical order below.

BATTLE POSITIONS

4-20. **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 subordinate to position the subordinate's entire force within its bounds since it is not an area of operations. 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 positions based on terrain, enemy capabilities, and friendly capabilities. A commander can assign some or all subordinates battle positions within the area of operations.

4-21. The commander assigns subordinates battle positions in situations when there is a need to retain a greater degree of control over the maneuver of subordinate units than that provided through only using an area of operations, as the commander controls maneuver outside the general location of the battle position. Multiple battle positions may be assigned 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, support, and sustainment forces typically operate outside a unit's battle position.

4-22. Units occupy or depart battle positions as part of the overall plan. The commander assigning a unit to a battle position should specify when and under what conditions the unit displaces from the position, since battle positions are not normally held at all costs. 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 the unit can displace.

4-23. There are five kinds of battle positions—primary, alternate, supplementary, subsequent, and strong point. When assigning battle positions, the commander always designates the primary battle position. The commander designates and prepares alternate, supplementary, and subsequent positions as time and other resources permit and if the terrain or situation requires them.

4-24. **The primary position is the position that covers the enemy's most likely avenue of approach into the area of operations.** It is the best position from which to accomplish the assigned mission, such as cover an engagement area to prevent enemy penetration.

4-25. **An alternate position is a defensive position that the commander assigns to a unit or weapon system 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. The commander locates alternate positions so the occupant can continue to fulfill the original task, such as covering the same avenue of approach or engagement area as the primary position. These positions increase the defender's survivability

by allowing the defender 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.

4-26. A **supplementary position** is a defensive position located within a unit's assigned area of operations 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 avenue of approach into a unit's area of operations 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.

4-27. 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.

4-28. 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. The commander positions strong points on key or decisive terrain. The unit occupying the strong point prepares positions for its weapon systems, vehicles, Soldiers, and supplies. The commander also establishes a strong point when anticipating that enemy actions will isolate a defending force retaining terrain critical to the defense.

4-29. Before assigning a strong point mission, the commander ensures that the strong point force has sufficient time and resources to construct the position, which requires significant engineer support and class IV and V supplies. 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.

DIRECT FIRE CONTROL MEASURES

4-30. The commander engages the enemy force with all available fires when it enters the defending unit's engagement area. (ADRP 1-02 defines direct fire control measures, such as target reference points, trigger lines, and engagement areas.)

DISENGAGEMENT LINE

4-31. 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 position. The commander uses these lines in the delay and the defense when the commander does not want the defending unit to become decisively engaged. The commander establishes criteria for the disengagement, such as number of enemy vehicles by type, friendly losses, or enemy movement to flanking locations. Commanders may designate multiple disengagement lines, one for each system in the defense.

FIRE SUPPORT COORDINATION MEASURES

4-32. The commander tries to engage the enemy at extended ranges and attrit the enemy force as the enemy's attack advances. To control indirect fires, the commander uses common FSCMs described in ADRP 1-02. The commander can also employ final protective fires.

4-33. **Final protective fire** is an immediately available preplanned barrier of fires designed to impede enemy movement across defensive lines or areas (JP 1-02). Both direct- and indirect- fire weapons can provide final protective fires (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 force initiates its final assault into a defensive position, the defending unit initiates its FPFs to kill enemy infantry soldiers and suppress enemy armored vehicles.

FORWARD EDGE OF THE BATTLE AREA

4-34. The *forward edge of the battle area* is the foremost limit 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 3-09.3). The Army uses a forward edge of the battle area (FEBA) only during the defense. The FEBA is not a boundary, but it 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 assist in the maneuver of subordinate 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. Defending units must address this area in their scheme of maneuver and exchange information regarding tactical plans at coordination points.

MAIN BATTLE AREA

4-35. The *main battle area* is the area where the commander intends to deploy the bulk of the unit's combat power and conduct decisive operations to defeat an attacking enemy. The defending commander's major advantage is the ability to select the ground on which the battle takes place. The defender positions subordinate forces in mutually supporting positions in depth to absorb enemy penetrations or canalize them into prepared engagement areas, defeating the enemy's attack by concentrating the effects of overwhelming combat power. The natural defensive strength of the position determines 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 includes the area where the defending force creates an opportunity to deliver a counterattack to defeat or destroy the enemy.

4-36. The MBA extends from the FEBA to the unit's rear boundary. The commander locates subordinate unit boundaries along identifiable terrain features and extends them out beyond the forward line of own troops (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 the commander's own analysis using the mission variables of METT-TC. The IPB process indicates how the enemy force will probably use the available avenues of approach.

FORMS OF THE DEFENSE

4-37. Subordinate forms of the defense have special purposes and have their own unique planning considerations. The Army recognizes three forms of the defense—

- Defense of a linear obstacle.
- Perimeter defense.
- Reverse slope defense.

(See FM 3-90 for an expanded discussion.)

COMMON DEFENSIVE PLANNING CONSIDERATIONS

4-38. The 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 the unit's defensive positions. The defending commander 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 the 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 it must be task organized to conduct a delay.

4-39. At the attack's onset, the defending commander yields the initiative to the enemy. However, the defending commander exploits the advantages of prepared, mutually supporting positions organized for all-around defense and 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 to reduce the force of the enemy's initial blows and start the process of wresting the initiative from the enemy. The defending force draws the enemy into engagement areas where the defenders can initiate combat on their own terms. The commander surprises the enemy with concentrated and integrated fires that violently erupt on exposed enemy formations from concealed and protected positions. The defending commander then counterattacks the enemy, repeatedly imposing unexpected blows. The commander exploits small tactical successes and opportunities to stop the attacker's momentum.

4-40. 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 a combined arms team or the enemy soldiers' 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.

4-41. The common defensive planning considerations addressed in paragraphs 4-42 through 4-142 apply to all defensive tasks. These considerations are in addition to those common offensive planning considerations introduced in the previous chapter, when appropriately modified for the defense. In the defense, synchronizing the effects of the warfighting functions with information and leadership allows a commander to apply overwhelming combat power against selected advancing enemy forces to unhinge the enemy commander's plan and destroy the enemy's combined arms team. Defensive synchronization is normally the result of detailed planning and preparation among the various units participating in the defense. 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 actions are a mix of static and dynamic actions. As an operation evolves, the commander knows that there will probably be a requirement to shift decisive and shaping operations or main and supporting efforts 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 defensive positions in an effort to escape approaching enemy forces throughout the defense.

MISSION COMMAND

4-42. The mission command considerations for the offense discussed in chapter 3 also apply to the defense. Commanders, assisted by their staffs, integrate numerous processes and activities within the headquarters and across the force as they exercise mission command in the defense just as they do in the offense. The commander's mission and intent determine the scheme of maneuver and the allocation of available resources.

4-43. A defensive mission generally imposes few restrictions on the defending commander. It allows freedom of maneuver within assigned boundaries, but requires the commander to prevent enemy penetration of the rear boundary. Defending an area of operations is a typical mission for battalion and higher-echelon units. This mission allows the commander to distribute forces to suit the terrain and plan engagement areas that integrate 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 areas of operations. The defensive plan must address what happens when it succeeds and the opportunity exists to transition from defense to offense.

4-44. Defensive tasks are often difficult to conduct because they may occur against an enemy that has the initiative and usually has superior combat power. The commander must have a clear understanding of the battlefield situation to mass subordinate and supporting forces to disengage committed forces. The commander takes advantage of war gaming that takes place in the military decisionmaking process to derive decision points. The commander 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. The commander may require additional signal support to sustain primary communication networks, such as

retransmission teams, joint network node signal assets, and tactical radio communications across wide frontages characteristic of many defensive actions.

4-45. Because the enemy has the initiative, the commander may have to frequently shift shaping operations to contain the enemy's attack until the defending force can seize the initiative. This may require the commander to adjust subordinate unit areas of operations, repeatedly commit and reconstitute the reserve, and modify the original plan.

4-46. The commander may change 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. This requires them to ensure that their objectives are synchronized and control measures, movement routes, defensive positions, fire support plans, and specifically assigned tasks are understood. It also requires the use of standard operating procedures by each element of the task-organized unit. Failure to synchronize task-organized elements has often resulted in mission failure.

4-47. To break through the MBA, the enemy often attacks along the boundaries of defending units, when they can be identified. 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. Commanders coordinate through personal visits to subordinate commanders on the ground when possible. The staff rapidly transmits coordination decisions 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.
- Obstacle and demolition plans.
- Fire plans, to include employing antitank systems, illumination, and smoke.
- Air defense coverage areas.
- Employing the reserve in conjunction with information-related capabilities and fire support systems, such as artillery and aviation.
- Control measures, such as boundaries, phase lines, fire support coordination measures, and airspace coordinating measures.
- Communications.

4-48. Because mission command facilities tend to be more stationary in the defense than in the offense, the commander should place them in hardened areas or protective terrain and reduce their electronic signature. They must remain capable of rapidly relocating in response to battlefield developments.

4-49. The fact that the defending unit is typically relinquishing terrain along with its associated civilian inhabitants makes dealing with those civilians more difficult in the defense than it is in the offense. However, it is important that the defending unit prevent the uncoordinated movement of dislocated civilians. Such uncoordinated movements can hamper the execution of the unit's defense by hindering the repositioning of defending forces in response to the changing tactical situation, the sustainment of defending forces, and the evacuation of casualties. It is also important that the defending unit meet its legal obligations to the civilian inhabitants of its area of operation.

MOVEMENT AND MANEUVER

4-50. The defending 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 the enemy either organizes that position for defense or exploits success.

Exploit the Advantages of Terrain

4-51. The defending commander exploits the advantages of occupying the terrain where the engagement will occur. The defending force engages the attacker from locations that give the defending force an advantage. 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 in one area to deny terrain to the enemy while delaying in another area to deceive the enemy commander into believing that the attacking enemy force has achieved success.

4-52. The defending commander uses key terrain to impede the enemy's movement. The defending commander selects terrain that allows massing friendly fires but forces the enemy to commit forces piecemeal into friendly engagement areas. 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 lines of communications.

4-53. The commander determines the probable force ratios the defenders will face and establishes positions accordingly. The terrain determines how quickly the enemy can close on defensive 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 that must be taken is clear—the commander allocates available forces and begins planning engagement areas.

4-54. On each enemy avenue of approach, the commander determines where to defeat the enemy. The commander arrays forces allocated to that avenue of approach around this point to establish an engagement area using obstacles and fires to canalize enemy forces into it. The commander takes actions to increase the kill probabilities of various weapon systems at different ranges. This includes establishing range markers for direct fire weapons, confirming the zero of weapons, or clearing obstacles that might snag the cables of wire-guided munitions.

4-55. 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 the enemy 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 these prepared engagement areas. 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. (FM 90-7 provides guidance on integrating obstacles into engagement areas and defensive positions.)

4-56. Terrain features that favor the defense 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 forces as the battle progresses.

4-57. The opposite of these terrain conditions degrades a force's ability to conduct the defense. For example, terrain with a limited road network that canalizes the defending force allows the enemy to predict its movement and take steps to interdict that movement.

4-58. In accordance with the mission variables of METT-TC, units can conduct survivability moves between their primary, alternate, and supplementary positions. **A survivability move is a move that involves rapidly displacing a unit, command post, or facility in response to direct and indirect fires, the approach of an enemy unit, a natural phenomenon or as a proactive measure based on intelligence, meteorological data and risk analysis of enemy capabilities and intentions (including weapons of mass destruction).**

Maintain Security

4-59. Commanders use security operations 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 these positions. Commanders 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 the attack by forcing the enemy to attack blind into prepared defenses. Commanders counter enemy ground reconnaissance activities through both active and passive measures. The commander must not permit enemy reconnaissance and surveillance assets to determine the precise location and strength of defensive positions, obstacles, engagement areas, 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. **The security area is that area that begins at the forward area of the battlefield and extends as far to the front and flanks as security forces are deployed. Forces in the security area furnish information on the enemy and delay, deceive, and disrupt the enemy and conduct counterreconnaissance.** All units conduct aggressive security operations within their area of operations, including the echelon support area, to seek out and repel or kill enemy reconnaissance and other forces. Units implement operations security and other information protection measures to deny the enemy information about friendly dispositions.

Disrupt the Enemy Attack at Every Opportunity

4-60. The defending force conducts operations throughout the depth of the enemy's formation in time and space to destroy the enemy's key units and assets, particularly their 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 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 electronic warfare to assist this process.

Mass the Effects of Combat Power

4-61. The defending force must mass its combat power to overwhelm the enemy and regain the initiative. The commander uses economy of force measures in areas that do not involve the decisive operation or main effort to mass forces in the decisive area. This decisive point can be a geographical objective or an enemy force. In an area defense, defending units use engagement areas to concentrate 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 the commander can generate the effects of mass is through committing the reserve.

4-62. Typically a commander will begin engaging advancing enemy forces with air-delivered and long-range indirect fires. The defender then employs an increasing volume of fire by engaging with shorter-range systems as the attacking enemy continues to close on the defender's positions while continuing to engage the attacker with longer-range systems. The commander attrits and defeats the enemy as far forward of friendly defensive positions as possible. This allows the defender to engage the enemy for longer periods which normally allows for more kills forward of the defender's positions. This method of engagement is normally employed against enemy formations of similar or larger size than the defender. The major disadvantage of this method is that once the defender employs direct-fire systems, the enemy will probably detect the firing positions of those systems. This allows the enemy to engage the defender with fires. At the low tactical level it may make flank shots against enemy armored systems more difficult to obtain at longer ranges.

4-63. One method of massing combat power initiates fires with fixed-wing aircraft and Army long-range indirect fires as the enemy comes within range. Rotary-wing close combat attack may occur at great distance from or near the FLOT, depending upon the enemy's air defense capability. Electronic attack begins at the point the commander believes it to be most effective to disrupt the enemy's command and control. Direct fire weapon systems such as tanks and long range antitank missiles begin to engage at those systems' maximum effective range. As the enemy continues to advance, defending light mortars, machineguns and medium-range anti-tank systems engage. As the range continues to close, defenders employ individual rifles, grenade launchers, and short-range anti-tank weapons. If the attacking enemy is not defeated and continues to close with defenders that do not displace, eventually the attacker will face defending Soldiers employing pistols, grenades, bayonets, pioneer tools, and combatives in addition to other previously used weapons. At some point in the process fixed-, rotary-wing, and tilt-rotor aircraft weapons and artillery will no longer be able to engage the front ranks of the attacking enemy force because of the unacceptable danger of hitting friendly forces. The crowded nature of the airspace over the defensive position will also be a factor. However, that point can be very close. There are historical cases where an enemy has been within 25 meters of a defending force and was still engaged by fixed-wing aircraft. In extreme cases, airburst artillery and mortar fires have been called in on friendly positions to successfully defeat an enemy attack when adequate overhead protective cover was available for friendly forces and the unit was in danger of being overrun.

4-64. Another method of massing combat power uses the simultaneous employment of all direct-fire weapons immediately supplemented with indirect fires, particularly from mortars. This method will result in more kills on first engagement, but at a much closer range. However, the mass and momentum of the attacking enemy may still carry the force into friendly positions. This method is ideal for use in situations where parts of the attacking enemy are isolated from the direct-fire support of their fellows. This occurs when employing a reverse-slope defense. It also occurs in defensive situations where the attacking enemy element is considerably smaller in size or has significantly less lethal capabilities than the defending force and the majority of that attacking force can be enticed to enter into an engagement area.

Armored and Stryker Forces

4-65. When most of a defending force consists of units equipped with armored combat vehicles, the commander can conduct a defense designed to take advantage of the tactical mobility and protection offered by those systems. Combat vehicles provide defending forces with the capability to maneuver to delay the advance of a strong enemy force and then immediately change from a mobile to a static defense or counterattack. Forces equipped with armored combat vehicles are well suited for use as security and MBA forces. They are more suited for operations within a chemical, biological, radiological, or nuclear (CBRN) contaminated environment than infantry forces because of their built-in CBRN overpressure protection.

Infantry Forces

4-66. When facing enemy light forces, the commander deploys and uses defending infantry forces in the same manner as armored forces are used against other heavy forces. Infantry forces facing a heavy enemy are primarily used in static roles within the MBA or in security roles within the echelon support area. When facing heavy enemy forces, 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.

4-67. The commander uses an air assault unit in the same manner as other infantry forces once it deploys into its landing zones. However, there may be problems in extracting an air assault 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 the defense. Its tasks might include—

- Rapid reinforcement of a threatened position.
- Occupation of a blocking position, possibly in conjunction with existing defensive positions.
- Echelon support 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 and Unmanned Aircraft Systems

4-68. Aviation assets are particularly valuable in the defense because of their speed, mobility, and versatility. Their tasks can include—

- Conducting reconnaissance and surveillance as part of information collection.
- Conducting security operations.
- Conducting shaping operations or supporting efforts to establish the necessary conditions for decisive operations by other forces or the main effort through attriting, 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 defensive plan before the arrival of ground maneuver forces.
- Facilitating the disengagement of ground forces.
- Countering enemy activities in the echelon support area, in particular enemy airborne or air assault forces.
- Resupplying the defending force with Class IV barrier material or facilitating casualty evacuation.
- Assisting in the countermobility effort.

Ensure Mutual Support

4-69. 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.

Mobility

4-70. During the defense, mobility tasks include maintaining routes, coordinating gaps in existing obstacles, and supporting counterattacks. Engineers also open helicopter landing zones 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 aircraft 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 friendly forces to avoid detracting from the mobility of the defending force. The commander can do this provided the action is coordinated with the host nation or the appropriate civil-military operations units and fulfills the commander's responsibilities to dislocated civilians under the law of armed conflict.

4-71. The commander's 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 reducing obstacles and improving or constructing combat roads and trails to allow tactical support vehicles to accompany moving combat vehicles. The commander coordinates carefully to ensure that units leave lanes or gaps in their obstacles that allow for the repositioning of main body units and the commitment of the counterattack force. CBRN reconnaissance systems also contribute to the force's mobility in a contaminated environment.

Counter mobility

4-72. Counter mobility operations help isolate the battlefield and protect friendly forces from enemy attacks. The commander normally concentrates engineer efforts on countering the enemy's mobility. A defending force typically requires large quantities of Class IV and V materiel and specialized equipment to construct fighting and survivability positions and obstacles. With limited assets, the commander must establish priorities among counter mobility, mobility, and survivability efforts. The commander ensures that the unit staff synchronizes these efforts with the unit's sustainment plans.

4-73. The commander may plan to canalize the enemy force into a salient. In this case, the commander 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 defensive posture, the defending commander rapidly coordinates and concentrates all defending fires against unprepared and unsupported segments of the attacking enemy force. The unit may deliver these fires simultaneously or sequentially.

4-74. When planning obstacles, commanders and staffs consider not only current operations but also future operations. The commander should design obstacles for current operations so they do not hinder planned future operations. Any commander authorized to employ obstacles can designate certain obstacles to shape the battlefield as high-priority reserve obstacles. The commander assigns responsibility for preparation to a subordinate unit but retains authority for ordering their completion. One 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.

4-75. 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 engagement areas, and protect friendly positions and maneuver. The commander may choose to employ scatterable mines, if allowed by the rules of engagement. Obstacles must be integrated with fires 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.

4-76. Effective obstacles block, turn, fix, disrupt, or force the enemy to attempt to breach them. The defender tries to predict enemy points of breach based on terrain and probable enemy objectives. The defending force develops means to counter enemy breach attempts, such as pre-coordinated fires. The attacker will try to conceal the time and location of the breach. The defending commander's plan addresses how to counter such a breach attempt, to include reestablishing the obstacle by using scatterable mines and other techniques.

4-77. Improvement to defensive positions is continuous. Given time and resources, the defending force constructs additional obstacle systems in-depth, paying special attention to its assailable flanks and rear. The rear is especially vulnerable if there are noncontiguous areas of operations or nontraditional threats. Obstacle systems can provide additional protection from enemy attacks by forcing the enemy to spend time and resources to breach or bypass them. This gives the defending force more time to engage enemy forces attempting to execute a breach or bypass.

4-78. The commander designates the unit responsible for establishing and securing each obstacle. The commander may retain execution authority for some obstacles or restrict the use of some types of obstacles to allow other battlefield activities to occur. The commander allows subordinate commanders some flexibility in selecting the exact positioning of obstacles. However, all units must know which gaps or lanes—through obstacles and crossing sites—to keep open for movements, as well as the firing and self-destruct times of scatterable mines to prevent delays in movement. Commanders must be specific and clear in their orders for executing reserve 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.

4-79. 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 enabler 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 the unit will restore obstacles that the enemy has breached. The commander uses artillery, air, or ground systems to reseed minefields.

Enemy Airborne and Air Assault

4-80. Defeating an enemy airborne or air assault attack begins with a good IPB process to determine the enemy's capabilities to conduct vertical envelopment and identify enemy airfields, pickup zones, drop zones, and landing zones. Armed with an appreciation of the enemy's capability to conduct vertical envelopment, the commander takes steps to counter the attackers before they launch, during their movement to the drop zone, or at the landing zone. After prioritizing the risk of each potential drop or landing zone to the operation, the commander establishes systematic surveillance of these areas to alert defending forces if the enemy attempts to insert forces. Units also sight their weapons to cover the most probable drop and landing zones. The fire support plan includes these zones in its target list for area fires munitions and scatterable munitions and reflects current rules of engagement and host nation restrictions. Defenders 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 echelon support area survivability efforts.

4-81. Once enemy forces succeed in landing, speed in containing and counterattacking the inserted enemy force before it becomes organized and reinforced is vital to a successful defense. Field artillery and attack helicopters conducting close combat attacks must quickly take advantage of the concentration of targets in the insertion area. Joint fires can also be employed against the insertion area. However, the joint force air component's first priority should be regaining local air superiority over the insertion area to prevent the reinforcement of those initially inserted enemy forces. Affected base and base cluster defense forces and available response forces keep the enemy force under observation, calling in and designating targets for available fires. The commander rapidly musters and commits available maneuver forces to take advantage of enemy air assault or airborne infantry forces' vulnerabilities to attack by armored vehicles while they remain concentrated in the insertion area. If more enemy troops land and consolidate, local base and base cluster defense forces and the response force try to fix the enemy to allow a tactical combat force to counterattack. If the enemy force is too large for the tactical combat force to reduce, the commander may need to commit the reserve.

Smoke and Obscuration

4-82. The commander uses smoke to disrupt the enemy's assault or movement formations and deny the enemy's use of target acquisition optics, visual navigation aids, air avenues of approach, landing zones, and drop zones. 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 landing zones and drop zones can prevent an enemy from using them or greatly increase the enemy's risk.

4-83. The commander uses smoke-generation capabilities to mark targets and screen and obscure friendly positions. Modern bispectral obscurants provide protection from thermal as well as visual spectrum viewing devices. The commander must carefully employ obscurants 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 or mortar smoke, and smoke pot employment. The capabilities of each of these smoke-producing systems are most effective when used together to achieve synergistic effects. Using smoke can also enhance deception operations and cover friendly movements. (See FM 3-11.50 for details on planning, preparing, and executing smoke operations. See FM 3-09 for information on employing smoke munitions.)

Limited Visibility Adjustments

4-84. Defending during periods of limited visibility or darkness is normal. The ability of the attacker to create conditions of smoke—including thermal neutralizing smoke—and the smoke and dust associated with a battle also means that the defending commander must be able to rapidly modify the defense to one effective during limited visibility. In fact, the commander should assume limited visibility rather than full visibility during defensive planning. The enemy may not attack during the day or the enemy's daylight attack may continue into the hours of darkness. Either way, the defending friendly force may not be able to adjust from its original positions which must, therefore, be adaptable to limited visibility conditions.

4-85. There are two general limited visibility conditions: those which mechanical aids, such as thermal sights, can overcome or partially overcome, and those which such mechanical aids cannot overcome. The first category includes darkness. The second category includes dense battlefield dust, smoke, heavy rain, snow, fog, or any other conditions which cannot be at least partially overcome by artificial illumination, image intensification, radar, or other sensors. In this case, defending units may need to move closer to the avenues of approach they are guarding. Sensors may still be of some value in these conditions.

4-86. Night vision technology continues to change defensive tactics, techniques, and procedures in limited-visibility environments. Night vision devices have greatly increased capabilities to see, engage, and move for both defenders and attackers. While night-vision devices in U.S. units have continued to proliferate and improve over the years, their fields of view and depth perception remain limited when compared to normal vision during daylight. Limited-visibility conditions cause psychological impacts, a need to employ tighter formations, and cross-country navigation difficulties.

4-87. The attacking enemy can be expected to create or take advantage of limited visibility conditions. Normally, a defending commander can expect an attacker taking advantage of these conditions to:

- Conduct reconnaissance to locate the defender's weapons, obstacles, and positions.
- Breach or reduce defensive obstacles.
- Move through gaps in the defender's coverage caused by reduced target acquisition ranges.

4-88. Defensive plans should include the following to help overcome potential limited-visibility problems:

- Long-range detection equipment, such as radar, sensors, and thermal imaging devices, focused on well-defined avenues of approach.
- Some units and weapon systems deployed along avenues of approach that follow terrain features potentially used by an enemy for orientation in darkness, such as wood lines and water courses.
- Increased numbers of infantry, scouts, observation posts, combat patrols, and anti-armor teams deployed forward on secondary avenues of approach and between subordinate unit defensive positions to detect and slow enemy movement, especially enemy infiltration attempts, and protect obstacles against enemy breaching attempts.
- Point obstacles and early warning devices emplaced along likely night approaches to slow the advancing enemy or to alert defenders to enemy presence.
- Weapon system and unit displacements and the massing of fires on projected enemy approaches planned and rehearsed. (Defending units moving over previously reconnoitered routes should be able to move faster than an enemy force moving through unfamiliar terrain.)
- Illumination planned on or behind likely engagement areas to silhouette enemy forces while leaving defenders in shadows and darkness. (While this illumination should not be needed with thermal sights, it is useful with other sights although care needs to be taken to avoid the "white-out" of light amplification sights.)
- Adjustments to the organization of the defense for limited visibility should commence before dark and be completely reversed to their daylight configuration before dawn.

INTELLIGENCE

4-89. During planning, the commander uses intelligence products to identify probable enemy objectives and approaches. From those probable objectives and approaches named areas of interest and targeted areas of interest can be developed. In the defense, the intelligence process should be able to determine the

enemy's strength, courses of action (COAs), and location of enemy follow-on forces. Intelligence preparation of the battlefield products identify probable enemy objectives and various approaches; patterns of enemy operations; the enemy's vulnerabilities to counterattack, interdiction, electronic warfare, air attacks, and canalization by obstacles. The commander studies the enemy's capability to conduct air attacks against friendly forces, insert forces behind friendly units, and employ chemical, biological, radiological, nuclear, and high-yield explosives weapons or devices. The intelligence staff must also evaluate how soon follow-on forces can be committed against an enemy attacking in echelons. Defending commanders can then decide where to arrange their forces to defend and shape the battlefield. Intelligence support affords commanders the time necessary to commit the striking force precisely.

4-90. The commander uses available reconnaissance, surveillance, and engineer assets to study the terrain to determine the principal enemy and friendly armored, infantry, and air avenues of approach. The commander determines the most advantageous area for the enemy's main attack, as well as other military aspects of terrain: observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment (OAKOC). (See ATTP 3-34.80 for a detailed discussion of OAKOC.) The defending unit must continuously conduct information collection activities during the battle so that the defending commander can make the appropriate adjustment decisions.

4-91. Just as in the offense, the echelon intelligence and operations officers, in coordination with the rest of the staff, develop a synchronized and integrated information collection plan that satisfies the commander's maneuver, targeting, and information requirements. These requirements in the defense are remarkably similar to those found in paragraph 3-89, although the commander's exact information requirements in the defense are dictated by the mission variables of METT-TC.

4-92. Commanders integrate information collection activities as part of the overall plan that addresses the continuation of collection and analysis efforts throughout the operation because it is unlikely that the commander has complete knowledge of the enemy's intentions, capabilities, and dispositions. (FMs 3-11.19 and 3-34.170 discuss the specialized tasks associated with CBRN and engineer reconnaissance.)

4-93. The commander's ability to see the enemy is critical to the conduct of all defensive tasks. Defensive plans must address the sustainment, replacement, and reconstitution of reconnaissance and surveillance assets throughout the preparation and execution of the defense.

FIRES

4-94. The targeting process ensures the collective and coordinated use of Army indirect fires, air and missile defense, and joint fires to gain and maintain fire superiority throughout all offensive actions. In the defense, the commander uses the fires warfighting function to neutralize, suppress, or destroy enemy forces. They also can be used to delay or disrupt the enemy's ability to execute a given COA, and to enhance the effects of massed direct fires.

Army Indirect Fires and Joint Fires

4-95. 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 lines of communications, as opposed to when the attacking enemy force is deployed in combat formations within the MBA. To accomplish this, the defending force must effectively employ available indirect and joint fires throughout its area of operations. It must be closely linked to target acquisition means, including reconnaissance and surveillance assets. The information in paragraphs 3-93 through 3-95 on the USAF tactical air control party (TACP), fire support planning, and role of the fire support coordinator (FSCOORD) applies to the defense.

4-96. As defensive plans develop, the commander must visualize how to synchronize, coordinate, and distribute the effects of indirect and direct fires at decisive times and places. Permissive FSCMs are placed as close as possible to friendly positions to enable the rapid engagement of attacking enemy forces by indirect and joint fires. Commanders coordinate the massing of fire effects on enemy targets, concentrated at obstacles and other choke points, before they can disperse. Proper distribution of fires ensures the

massing of overwhelming combat power at these points and ensures that high-payoff targets are destroyed or neutralized without wasting assets through repetitive engagements by multiple friendly systems.

4-97. 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. All elements in the fire support chain—from joint fires observers and platoon forward observers in fire support teams to the fires cell including the supporting tactical air control party and the supporting fires units—must understand the commander's intent, the scheme of maneuver, and the obstacle plan.

4-98. There are various fire support considerations for each phase of the defensive fight. As part of shaping operations or supporting efforts 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 indirect fire and air support on known, suspected, and likely enemy locations.
- Attriting enemy resources by continuously engaging high-payoff targets.
- Conducting electronic attack to degrade the enemy's ability to command and control forces.
- Employing counterfire 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.

4-99. 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 force. The defender's ability to mass fires quickly and then rapidly reposition forces is a major factor in disrupting the enemy and establishing the conditions for successful decisive operations.

4-100. The commander employs fires to support the security force, 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. The commander supports the security force by planning the delivery of fires at appropriate times and places to slow and canalize the enemy force as it approaches the security area. This allows the security force to engage the enemy on more favorable terms. To prevent fratricide and friendly fire incidents, the commander places no-fire areas over security force elements. Finally, the commander uses fires to support the withdrawal of the security force once the security force's shaping mission is completed and the defending unit is prepared to conduct MBA operations.

4-101. 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. Commanders use close air support (CAS) and air interdiction to disrupt an enemy advance. CAS can operate with Army helicopters and artillery assets to form a joint air attack team. The commander also incorporates artillery fires with electronic warfare and joint systems to suppress enemy air defenses while CAS engages a target. Air interdiction can delay, destroy, or neutralize enemy follow-on forces, thereby providing the commander with additional time to prepare.

4-102. Once the engagement 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 the enemy's ability to mass combat power. Fire support assets continue to attack enemy follow-on forces before they can be committed to the MBA. Fire support assets attack enemy command and control facilities and logistics sites in depth to isolate the attacking enemy. The commander takes advantage of the range and flexibility of fire support weapons to mass fires at critical points, such as obstacles and engagement areas, 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. The commander assigns tasks to these fire support systems, including 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 MBA and impeding the movement of enemy reserves.
- Neutralizing enemy obstacle-reduction assets.
- 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.
- Disrupting the enemy's combined arms team by separating combat vehicles and infantry.

4-103. In response to shallow enemy penetrations, artillery commanders normally reposition their systems laterally, away from the point(s) of enemy penetration. This allows the defender's artillery systems to provide fire support throughout the area of penetration.

Air and Missile Defense

4-104. Army air defense artillery forces, fighting interdependently with other elements of the joint and multinational team at strategic, operational, and tactical levels, will provide air and missile defense and contribute to situational understanding, airspace management, and early warning to deter or defeat enemy aerial threats, protect the force and high value assets, and enable the force's freedom to operate. This mission is normally executed within a joint theater-wide structure and requires integration and close coordination between Army air defense artillery forces and other counterair forces.

4-105. Freedom of movement and freedom from aerial attack are as essential to a successful defense as they are to a successful offense. In an environment where air and missile threats exist, the defending ground force operates within a joint counterair operation designed to attain the desired degree of air superiority required by the joint force commander to accomplish the mission. The joint force commander normally seeks to gain and maintain air superiority as quickly as possible to allow all friendly forces, not just ground forces, to operate without prohibitive interference from enemy air and missile threats. This counterair mission integrates the conduct of both offensive and defensive tasks by all joint force components.

4-106. Generally, commanders use offensive counterair operations to dominate enemy airspace and prevent the launch of threats. (Offensive counterair includes the suppression of enemy air defenses.) Defensive counterair operations defeat enemy air and missile threats attempting to penetrate or attack through friendly airspace. Commanders integrate joint forces to exploit the mutually beneficial effects of offensive and defensive tasks to destroy, neutralize, or minimize air and missile threats. (See JP 3-01 for additional information on joint counterair operations.)

4-107. Air and missile defense fire control is part of the joint kill chain and directed by the area air defense commander thru a sector air defense center or regional air defense center. The Army air and missile defense command or air defense artillery brigade will provide air defense artillery fire control officers to the sector or regional air defense center. Air and missile defense fires will be coordinated and cleared on the ground and through the airspace to enable rapid and timely engagement of threats while preventing fratricide. However, the defending ground force staff coordinates to ensure that as much of their defended asset list as possible is located within the footprint fan of these air and missile defense systems.

4-108. Air and missile defense supports the conduct of defensive tasks involving engaging targets throughout the area of operations with air and missile defense fires and defensive counterair. In the defense, general fire support considerations for supporting the concept of operations include—

- Plan for target acquisition and sensors to provide coverage of named areas of interest, target areas of interest and critical assets.
- Provide fires in support of defensive counterair operations to prevent enemy aerial attacks.
- Provide integrated air and missile defense fires in synchronization with maneuver and electronic warfare countermeasures in the conduct of decisive and shaping operations.

- Provide fires to support counterattacks.
- Provide fires in support of decisive, shaping and sustaining operations.

Active Air and Missile Defense

4-109. *Active air defense* is direct defensive action taken to destroy, nullify, or reduce the effectiveness of hostile air and missile threats against friendly forces and assets. It includes the use of aircraft, air defense weapons, electronic warfare, and other available weapons (JP 3-01). Active missile defense requires early detection of missiles in flight to permit cueing, acquisition, tracking, classification, identification, and destruction as soon as possible after launch. The area air defense commander exercises control of active air defense operations by integration of air defense artillery systems and forces into the command's information systems. The Army forces (ARFOR) commander retains command of Army active defense forces. They conduct operations within their areas of operations per area air defense commander-developed, joint force commander-approved, rules of engagement, defended asset list, and airspace control measures to protect their forces and the joint force commander air and missile defense priorities.

Passive Air Defense

4-110. *Passive air defense* is all measures, other than active air defense, taken to minimize the effectiveness of hostile air and missile threats against friendly forces and assets (JP 3-01). These measures include camouflage, concealment, deception, dispersion, reconstitution, redundancy, detection and warning systems, and the use of protective construction. Passive defense improves survivability by reducing the likelihood of being detected and targeted from the air and by mitigating the potential effects of air surveillance and attack. Passive missile defense measures include detecting air and missile launches, predicting impact points, and providing threat identification and disseminating early warning. It includes measures initiated to reduce vulnerability and to minimize the effect of damage caused by missile attack. Passive defense measures by all elements of the force are essential.

SUSTAINMENT

4-111. The commander addresses several unique sustainment considerations in the defensive plan. Priorities for replenishment are normally ammunition and materiel to construct obstacles and defensive positions. There is normally a reduced need for bulk fuel. There may be an increased demand for decontaminants and CBRN collective and personal protective equipment. The commander considers stockpiling or caching ammunition and limited amounts of petroleum products in centrally located positions within the main battle area. The commander plans 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.

4-112. The commander ensures that the echelon sustainment officers (G-4/S-4, G-1/S-1, and the G-8) and the commanders of the sustainment units supporting the defending force understand the commander's tactical intent. They can then establish support priorities in accordance with the commander's intent and plan sustainment operations to ensure the supportability of the overall operation. The commander also addresses sustainment during branches and sequels to the defense plan, such as a counterattack into the flank of an adjacent unit.

4-113. Maneuver units top off regularly with supplies in case an enemy breakthrough disrupts the replenishment flow. At the battalion and BCT level the commander ensures that sustainment operators deliver combat-configured loads to maneuver units on a scheduled basis. Combat-configured loads are packages of potable and nonpotable water, CBRN defense supplies, barrier materials, ammunition, petroleum, oil, and lubricants (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 commander resupplies the supported maneuver unit using this push system until it requests otherwise. The commander can use utility and cargo

helicopters to deliver supplies directly from the echelon support area to the defending unit. Commanders use information systems to accurately tailor these combat-configured push packages to the demands of the supported maneuver units.

4-114. 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 reduces the chance for enemy interference with the resupply process but also lengthens the amount of time it takes to complete the process. Resupply occurs 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 aircraft capability. The commander may also use smoke to help conceal logistics operations.

4-115. The sustainment commander remains responsible for the defense of the sustainment unit. Concealment reduces the risks to these units. The commander must plan for the reconstitution of sustainment capabilities lost to enemy activities.

4-116. Terrain management is a critical consideration in the echelon support area. The commander positions each sustainment unit where it can best fulfill its support tasks while using minimal resources to maintain security in conjunction with other units located in the echelon support area. In contiguous operations, the commander positions echelon sustainment facilities farther away from the FEBA 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. These facilities are located far enough behind friendly lines that likely enemy advances will not compel the relocation of critical sustainment capabilities at inopportune times. However, those sustainment capabilities supporting the unit must be close enough to provide responsive support. In noncontiguous operations, the commander positions sustainment facilities in bases and base clusters within the perimeters of ground maneuver units to provide security and avoid interrupting their sustainment functions. The commander distributes similar functional sustainment units throughout the defensive area in both environments. This distribution allows the commander to designate one sustainment unit to pick up the workload of a displacing second sustainment unit until the second sustainment unit is once again operational.

4-117. The defending commander provides maintenance support as far forward as possible at unit maintenance collection points 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. The commander must ensure that multifunctional forward logistics elements contain the maximum variety of maintenance personnel with appropriate equipment, such as repair sets, kits, and outfits, to rapidly repair weapon systems.

4-118. Medical support associated with the defense anticipates significant casualties just as in the offense. The commander plans to augment the available ambulances if a mass-casualty situation develops. Units should always plan for mass casualties and have an evacuation plan, including ambulance exchange points and air evacuation, which accounts for the use of both standard and nonstandard air and ground platforms.

4-119. The conduct of troop movements and resupply convoys is critical. Staffs balance terrain management, movement planning, and traffic-circulation control priorities. They plan multiple routes throughout the area of operations and closely control their use. The commander may allocate mobility resources to maintain main supply routes 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. Commanders plan for dislocated civilians and the effect that they have on friendly military operations. Civil affairs units and personnel assist commanders in planning populace and resources control measures. Host nation and international organizations minimize the impact of disaster or conflict on dislocated civilians. The commander coordinates air and ground movements supporting the commander's scheme of maneuver 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.

4-120. During the preparatory phase of the defense, sustainment operators normally pre-position supply stocks, particularly ammunition and barrier materials, in the battle positions of defending forces. They also establish maintenance and casualty collection points. Sustainment operators must address these and other

sustainment preparations in the planning process to avoid compromising the operation. These sustainment preparations can also be included in military deception plans.

PROTECTION

4-121. Unit survivability is critical to defensive success no matter what defensive task is performed. Protection preserves subordinate unit capabilities so that the commander can use those capabilities to apply maximum combat power at the desired times and places. Criticality, vulnerability, and recuperability are some of the most significant considerations for the commander in determining protection priorities. The commander uses decision support tools and analysis to assess the unit's critical assets and key vulnerabilities. The commander plans and prepares for enemy attacks by predicting where the next attack will occur and applies measures to forestall or mitigate the attack. These enemy attacks may be from conventional, irregular, or terrorist forces and drive changes in local unit protection or individual protective measures. Incident management plans and area damage control are key components to a successful protection plan. These plans cover all threat capabilities and environmental considerations and integrate the protection tasks and their associated systems. The protection tasks discussed in paragraphs 4-122 through 4-142 have additional defense-specific planning considerations not previously addressed in chapter 3. (See protection and medical doctrine for a detailed discussion of all protection tasks.)

Area Security, Antiterrorism, and Physical Security

4-122. The enemy will employ a mix of long-range fires, aircraft, cannon, missiles, and rockets, as well as ground maneuver and special purpose forces to attack defending maneuver elements, command and communications nodes, lines of communications, sustainment sites, and civilian population centers in an attempt to disrupt the defense. Commanders pay attention to area security, antiterrorism, and physical security operations throughout the defense. This is especially true when the defending unit conducts noncontiguous operations.

4-123. In the defense, commanders protect forces and critical assets by conducting area security operations. Forces conducting area security in the defense can deter, detect, or defeat enemy reconnaissance efforts while creating standoff distances from enemy direct- and indirect-fire systems. Commanders use area security operations to protect the rapid movement of combat trains or protect cached commodities.

4-124. Units employ all-around security at all times, although they deploy the bulk of their combat power against likely enemy avenues of approach. Units maintain security at all times because the battlefield offers many opportunities for small enemy elements to move undetected.

4-125. The commander clearly defines responsibilities for the security of units within the echelon support area. The individual responsible for an area (for example a brigade support battalion or maneuver enhancement brigade commander) is responsible for defensive planning and risk mitigation in that area. That individual can designate the commanders of tenant units within the echelon support area (except medical corps officers) as base and base cluster commanders. Those base and base cluster commanders are responsible for the local security of their respective bases and base clusters. The commander responsible for the echelon support area can also designate protection standards and defensive readiness conditions for tenant units and units transiting through the area. Higher protection standards may impact the ability of those supporting sustainment units to perform their primary mission in support of the operations of maneuver and other forces. The commander coordinates to mitigate the effects of security operations on the primary functions of units located within the echelon support area.

4-126. The success of unit defense may depend on protecting the echelon support area from enemy attacks. Commanders must address the early detection and immediate destruction of enemy forces attempting to operate in the echelon support area. Enemy attacks in the echelon support area can range in size from individual saboteurs to enemy airborne or air assault insertions targeted against key facilities and capabilities. These enemy activities, especially at smaller unit levels, may even precede the onset of large-scale hostilities and will be almost indistinguishable from terrorist acts.

4-127. Planners determine how military police elements supporting the defending unit will enhance unit protection capabilities by conducting area security inside and outside the echelon support area. Military

police also perform response-force operations to defeat Level II threats against bases and base clusters located in that support area. They will maintain contact with Level III threats in the echelon support area until a tactical combat force can respond. (See protection doctrine for a discussion of the threat levels. See FM 3-90 for a discussion of security operations.)

Safety

4-128. Commanders include fratricide avoidance considerations when developing their unit defensive plans. Mobile defensive schemes are characterized by a high degree of movement and maneuver; therefore, the commander seeks to avoid fratricide incidents in a manner similar to offensive actions through solid land navigation and position reporting, combat identification, and control of the displacement of subordinate units. Area defense protects the force from friendly fire incidents by the deliberate structure of the defensive pattern that emphasizes preparation, identifiable engagement areas and kill zones, engagement criteria, and mutually supporting positions. The commitment of the reserve force during an area defense operation may create the conditions for friendly fire incidents. As a result, defensive planning should require rehearsals to preclude or reduce the probability of friendly fire incidents from occurring.

Survivability Operations

4-129. 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 the force from losses due to enemy actions. 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 the use of concealment, military deception, decoy or dummy positions, dispersion, and field fortifications. The commander should avoid predictable defensive preparations because an enemy will tend to attack lightly defended areas.

4-130. When preparing area and mobile defenses, the engineers supporting the defensive effort help maneuver and supporting units prepare fighting and survivability positions. Commanders locate these positions throughout the defending unit's area of operations from the security area, through the MBA, to the echelon support area. Requirements beyond the capabilities of BCT engineer units are passed through a division or corps current operations cell to an attached Army maneuver enhancement brigade (MEB) or any functional engineer brigade supporting the division or corps. These engineers also prepare any strongpoints required by the division or corps concept of operations.

4-131. Survivability tasks include using engineer equipment to assist in 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. The commander's priority in engineer survivability planning during the defense is determining the most appropriate locations and standards for the construction of survivability positions. This includes such things as determining overhead cover standards, such as being capable of resisting penetration by 82 millimeter (mm) mortar or 152 mm howitzer shells. (FMs 3-05.230, and 5-103 provide additional information concerning the construction and maintenance of survivability positions.)

4-132. The commander protects supply stocks against blast, shrapnel, incendiaries, and CBRN contamination. Vehicles carrying supplies 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 echelon engineer officer advises sustainment operators about storage area site selection that reduces the requirements for engineer survivability support without reducing the required degree of protection.

4-133. The defending unit's subordinate maneuver elements occupy their assigned areas of operations as soon as possible, so they can have as much time as possible to prepare defensive positions and enhance the defensive characteristics of the terrain within those areas of operations. This includes the construction of fighting and survivability positions.

4-134. Units employ three principles to enhance the concealment of their defensive positions, siting, discipline, and construction.

- Siting means selecting the most advantageous position in which to hide a man, an object, or an activity. This is often in the shadows provided by wood lines, wadies, and buildings.
- Success in any concealment effort hinges on strict concealment discipline. The unit should avoid activities that change the area's appearance or reveal the presence of military equipment. Laxness and carelessness will reveal a position. Tracks, spoil, and debris are the most common signs of military activity that indicate concealed objects. Commanders ensure that new tracks follow existing paths, roads, fences, or natural lines in the terrain pattern. Commanders do not end exposed routes at a position, but extend them to another logical termination. Units brush out, camouflage, or cover their tracks, if practical. Units should cover or place spoil and debris to blend with the surroundings. Units add artificial camouflage when the terrain and natural vegetation are inadequate for concealment.
- Construction involves adding natural materials used to construct defensive positions to blend with the surrounding terrain.

4-135. 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. (See ATTP 3-34.39 for additional information on the use of camouflage and concealment.)

4-136. Major defensive positions, sustainment sites, command posts, and other facilities 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. There are three fundamental methods of concealing individual weapons, units, installations and activities—hiding, blending, and disguising.

- Hiding is the complete concealment of an object by some form of physical screen. For example, sod placed over individual mines within minefields hides the mines; the overhead canopy of trees hides the objects beneath from aerial observation; tunnels hide objects located within them; a building roof and walls, camouflage net, or tarpaulin 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 is arranging or applying camouflage materials on, over, and around the object so that it appears to be part of the background. 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.
- Using clever disguises can often mislead the enemy about the friendly force's identity, strength, and intention, and may draw enemy 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 equipment to an aerial observer.

4-137. Damage limiting measures are also employed as part of unit survivability measures. These measures attempt to limit damage, if the enemy detects the position. Through damage limiting, the enemy is forced to destroy friendly equipment 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 dispersion to limit the damage done by an enemy attack. Dispersed troops and vehicles force the attacker to concentrate on a single small target that may be missed. The wider the dispersion of unit personnel and equipment, the greater the potential for limiting damage. The commander positions forces and installations to avoid congestion, but does not disperse them to the extent that there is a risk of defeat in detail by an enemy employing conventional munitions or weapons of mass destruction.

4-138. Units also use cover to limit the amount of damage and casualties that they can receive as a result of an enemy attack. Folds in the earth, natural depressions, trees, buildings, and walls offer cover; individuals and units should seek them out and use them habitually. If the commander deploys 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. The unit must do everything it can to avoid an attack in the first place as part of its survivability measures, but if it is attacked, it uses cover and dispersion to limit the amount of damage that the enemy is able to inflict.

CBRN Defense

4-139. Because defending units are often in fixed positions, they increase their vulnerability to CBRN threats and hazards. The commander specifies the degree of acceptable risk and establishes priorities for CBRN assets.

4-140. Units develop, train, and rehearse a CBRN defense plan to protect personnel and equipment from CBRN hazards. Mission-oriented protective posture analysis results in initial individual protective equipment levels, and decontaminants are positioned accordingly. Higher headquarters often establish the Mission-oriented protective posture level. Force health personnel maintain situational understanding and surveillance of personnel strength information for indications of force contamination, epidemic, or other anomalies apparent in force health trend data. The commander ensures that the unit can conduct operational and thorough decontamination of military personnel and equipment. The commander is responsible for CBRN passive defense training to prepare the unit to respond properly to CBRN threats.

4-141. The commander should employ CBRN reconnaissance and surveillance assets along movement routes and at potential choke points. Proper use of these assets enables the commander to reduce casualties and complete the mission.

4-142. CBRN personnel contribute to the overall protection of units located in defensive positions. CBRN personnel conduct CBRN vulnerability assessments that provide a list of recommended preventive measures for commanders to consider prior to and after units move into their defensive positions. These assessments provide a list of preventive measures that can range from emplacing smoke pots and generators to providing obscuration to neutralize enemy sensors. These preventive measures also include establishing collective protection and personnel and equipment decontamination sites. (For more information on CBRN operations, see FMs 3-11 and 100-30.)

TRANSITION

4-143. If a defense is successful, the commander anticipates and attempts to transition to the offense. If the defense is unsuccessful, the commander transitions from a defensive posture into retrograde operations. Transition from one type of operation or task to another requires mental as well as physical agility on the part of involved commanders, staffs, and units as well as an accurate understanding of the situation.

4-144. The commander deliberately plans for sequential operations, assisting the transition process and allowing the setting of 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 prepares for the next mission. In accordance with the mission variables of METT-TC, it establishes the required organization of forces and control measures necessary for success.

4-145. Prior contingency planning decreases the time needed to adjust the tempo of combat operations when a unit transitions from defensive to offensive actions. 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.

4-146. The commander's contingency planning also reduces the amount of time and confusion when a unit is unsuccessful in its defensive efforts and must transition to retrograde operations. The commander designates units to conduct denial operations and to evacuate casualties and inoperative equipment. The commander uses retrograde operations to preserve the force as a combat-capable formation until the commander can establish those conditions necessary for a successful defense.

TRANSITION TO OFFENSE

4-147. A defending commander transitions to a focus on the offensive element of operations by anticipating 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 the enemy force is becoming overextended. Indicators that the enemy is becoming overextended include when—

- 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 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 is unable to adequately sustain itself.
- A noticeable reduction in the tempo of enemy operations.
- Local counterattacks meet with unexpected success.

The commander must be careful not to be successfully targeted by enemy information activities and other messages designed to tempt the commander to abandon the advantages of fighting from prepared defensive positions.

4-148. 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 the force to conduct the attack, selecting units based on the commander's concept. However, the commander allocates available reserves to this effort.

4-149. As the commander transitions the force from the defense to the offense, the commander—

- Establishes a line of departure (LD) for the offensive operation. This may require the conduct of local, small-scale attacks to seize terrain necessary for the conduct of offensive tasks or destroy enemy forces that could threaten the larger operation.
- Maintains contact with the enemy, using combinations of available reconnaissance and surveillance assets and intelligence operations to develop the information required to plan future operations and avoid being deceived by enemy military deception operations.
- Redeploys the combined arms team based on the probable future employment of each element of that team. For example, fire support assets tend to move forward, so that additional enemy forces and terrain would be encompassed within their effective range.
- Maintains or regains contact with adjacent units in a contiguous area of operations and ensures that subordinate units remain capable of mutual support in a noncontiguous area of operations.
- Transitions the engineer effort by shifting the emphasis from countermobility and survivability to mobility.
- Provides the commander's intent for transitioning from the defense to the offense to subordinate commanders and Soldiers.
- Submits defended asset lists to influence the positioning of air and missile defense assets by the joint force area air defense commander.

4-150. The commander conducts any required reorganization and resupply concurrently with transition activities. This requires a transition in the sustainment 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.

4-151. 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. 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 the force transitions to the offense. The commander 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.

4-152. There are two basic methods for transitioning to the offense. The first, and generally preferred method, is to attack using forces not previously committed to the defense. This is because defending units may still be decisively engaged. These attacking forces may come from the 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.

4-153. A drawback to this method is the requirement to conduct a forward passage of lines. Additionally, enemy intelligence assets are likely to detect the arrival of significant reinforcements. Another consideration of using units not in contact occurs when they are operating in noncontiguous areas of operations. The commander rapidly masses overwhelming combat power in the decisive operation. This might require the commander to adopt economy of force measures in some areas of operations while temporarily abandoning others in order to generate sufficient combat power.

4-154. The second method is to conduct offensive actions using the currently defending forces. This method generally has the advantage of being more rapidly executed and thus more likely to catch the enemy by surprise. Speed of execution in this method results from not having to conduct an approach or tactical road march from reserve assembly areas or, in the case of reinforcements, move from other areas of operations and reception, staging, organization, and integration locations. Speed also results from not having to conduct a forward passage of lines and perform the liaison necessary to establish a common operational picture that includes knowledge of the enemy force's patterns of operation. The primary disadvantage of this method is that the attacking force generally lacks stamina and must be quickly replaced if friendly offensive actions are not to culminate quickly.

4-155. If units in contact participate in the attack, the commander must retain sufficient forces in contact to fix the enemy. The commander concentrates the attack by reinforcing select subordinate units so they can execute the attack and, if necessary, maintain the existing defense. The commander can also adjust the defensive boundaries of subordinate units so entire units can withdraw and concentrate for the attack.

TRANSITION TO THE RETROGRADE

4-156. 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 the retrograde. Each form of retrograde has its unique planning considerations, but considerations common to all retrogrades are risk, the need for synchronization, and rear security. However, the following key considerations receive special emphasis during the transition from the defense to the retrograde.

4-157. The transition to the retrograde 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 area of operations.
- Lure or force part or all of the enemy force into areas where it can be counterattacked.

4-158. The complexity and fluidity of the retrograde and the absolute need to synchronize the entire operation dictates the need for detailed, centralized planning and decentralized execution. Planning for the retrograde begins with the preparation of plans for the follow-on mission and is driven by the commander's concept of the operation and intent.

4-159. The nature of the retrograde 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. The commander must ensure that subordinate 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 and enhance the probability of success.

4-160. Intelligence requirements dramatically increase as forces begin their movement to other locations and the combat capabilities of units in contact are subsequently reduced. The commander develops an intelligence collection plan to identify and locate enemy attempts to pursue, outflank, and isolate the defending force as it transitions to the retrograde. As the commander transitions to the retrograde, that individual makes every effort to conserve combat power. The commander considers the need to—

- Conserve 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 main body.

TRANSITION TO STABILITY TASKS

4-161. The transition to stability tasks is conditional, but it should be planned for in advance. A defending commander may transition to emphasize stability tasks, if the defense retained decisive terrain, denied vital areas to the enemy, and so successfully attrited the attacking enemy that offensive actions are superfluous. As in other operations, the commander's concept of operations and intent drive the design of and planning for stability tasks. Generally, a tactical commander will focus on meeting the immediate essential service and civil security needs of the civilian inhabitants of the area of operations in coordination with any existing host nation government and nongovernmental organizations before addressing the other three primary stability tasks. Support requirements may change dramatically. The commander will probably change the rules of engagement and these changes must be effectively conveyed down to the squad and individual Soldier level.

4-162. When the emphasis transitions from the defense to stability tasks, the unit will probably begin executing a sequel to its previous operations order. The commander will probably reorganize the unit to introduce those capabilities required by the changes in the situation. Depending on the specific operational environment, commanders and staffs should reference the appropriate official departmental publications dealing with other missions and tasks, such as FM 3-07 or FM 3-24, to refresh previous training and education in those subjects. If commanders and staffs are unfamiliar with the civil considerations of their area of operations, they should refer to area histories, cultural and economic studies, and similar reference materials. The mission command and protection functions remain important to prevent Soldiers from relaxing discipline and safety standards as the stress of active defensive actions disappears.

4-163. When involved in other operations, such as peace operations, irregular warfare, and military engagement, the conduct of a unit defense is closely related to perimeter defense and base security. Base security is addressed in protection doctrine. The conduct of defensive tasks in the operational environments common to these missions will normally employ restrictive rules of engagement throughout a mission, regardless of which element of decisive action is dominant at any specific moment.

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Chapter 5

Tactical Enabling Tasks

Commanders direct tactical enabling tasks to support the conduct of offensive, defensive, stability, and defense support of civil authorities tasks. Tactical enabling tasks are usually employed by commanders as shaping or supporting operations within those operational frameworks. This chapter introduces those tactical enabling tasks that are not the subject of their own field manual or Army techniques publication. The topic of operations in an urban environment is included in this chapter even though it is an environment and not a tactical enabling task.

RECONNAISSANCE

5-1. *Reconnaissance* is a mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or adversary, or to secure data concerning the meteorological, hydrographical or geographical characteristics and the indigenous population of a particular area (JP 2-0). Reconnaissance primarily relies on the human dynamic rather than technical means. Reconnaissance is a focused collection effort. It is performed before, during, and after other operations to provide information used in the intelligence preparation of the battlefield process, as well as by the commander in order to formulate, confirm, or modify a course of action.

5-2. Commanders orient their reconnaissance assets by identifying a reconnaissance objective within the area of operations. **The reconnaissance objective is a terrain feature, geographic area, enemy force, adversary, or other mission or operational variable, such as specific civil considerations, about which the commander wants to obtain additional information.** The reconnaissance objective clarifies the intent of the reconnaissance effort by specifying the most important result to obtain from the reconnaissance effort. Every reconnaissance mission specifies a reconnaissance objective. The commander assigns a reconnaissance objective based on priority information requirements resulting from the intelligence preparation of the battlefield (IPB) process and the reconnaissance asset's capabilities and limitations. The reconnaissance objective can be information about a specific geographical location, such as the cross-country trafficability of a specific area, a specific enemy or adversary activity to be confirmed or denied, or a specific enemy or adversary unit to be located and tracked. When the reconnaissance unit does not have enough time to complete all the tasks associated with a specific form of reconnaissance, it uses the reconnaissance objective to guide it in setting priorities.

5-3. There are seven fundamentals of successful reconnaissance operations. Commanders—

- Ensure continuous reconnaissance.
- Do not keep reconnaissance assets in reserve.
- Orient on the reconnaissance objective.
- Report information rapidly and accurately.
- Retain freedom of maneuver.
- Gain and maintain enemy contact.
- Develop the situation rapidly.

5-4. The responsibility for conducting reconnaissance operations does not reside solely with specifically organized units. Every unit has an implied mission to report information about the terrain, civilian activities, and friendly and enemy dispositions. This is regardless of its location and primary function. Troops in close combat and reconnaissance patrols of maneuver units at all echelons collect information on enemy units with which they are in contact. In echelon support areas, reserve maneuver forces, functional and multifunctional support and sustainment elements, other governmental agencies, and multinational

forces observe and report civilian and enemy activity and significant changes in terrain trafficability. Although all units conduct reconnaissance, those specifically trained in reconnaissance tasks are ground cavalry, aviation attack reconnaissance units, scouts, long-range reconnaissance units, and special forces. Some branches, such as the Corps of Engineers, Civil Affairs, and the Chemical Corps, have specific reconnaissance tasks to perform that complement the force's overall reconnaissance effort. However, brigade combat team (BCT), division, and corps commanders primarily use their organic or attached reconnaissance—ground or air—and intelligence elements to conduct reconnaissance operations.

5-5. The five forms of reconnaissance operations are—

- Route reconnaissance.
- Zone reconnaissance.
- Area reconnaissance.
- Reconnaissance in force.
- Special reconnaissance.

ROUTE RECONNAISSANCE

5-6. **Route reconnaissance is a directed effort to obtain detailed information of a specified route and all terrain from which the enemy could influence movement along that route.** That route may be a cross-country mobility corridor. It provides new or updated information on route conditions, such as obstacles and bridge classifications, and enemy and civilian activity along the route. The commander normally assigns this mission when wanting to use a specific route for friendly movement.

ZONE RECONNAISSANCE

5-7. **Zone reconnaissance is a form of reconnaissance that involves a directed effort to obtain detailed information on all routes, obstacles, terrain, and enemy forces within a zone defined by boundaries.** Obstacles include existing and reinforcing, as well as areas with chemical, biological, radiological, and nuclear (CBRN) contamination. The commander assigns a zone reconnaissance mission when the commander needs additional information on a zone before committing other forces. It is appropriate when the enemy situation is vague, existing knowledge of the terrain is limited, or combat operations have altered the terrain. A zone reconnaissance may include several route or area reconnaissance missions assigned to subordinate units.

AREA RECONNAISSANCE

5-8. **Area reconnaissance is a form of reconnaissance that focuses on obtaining detailed information about the terrain or enemy activity within a prescribed area.** This area may include a town, a ridgeline, woods, an airhead, or any other critical operational feature. The area may consist of a single point, such as a bridge or an installation. The primary difference between an area reconnaissance and a zone reconnaissance is that in an area reconnaissance, units conducting the reconnaissance first move to the area in which the reconnaissance will take place. In a zone reconnaissance the units conducting the reconnaissance start from a line of departure. Areas are normally smaller than zones and are not usually contiguous to other friendly areas targeted for reconnaissance. Because the area is smaller, an area reconnaissance typically takes less time to complete than a zone reconnaissance.

RECONNAISSANCE IN FORCE

5-9. **A reconnaissance in force is a deliberate combat operation designed to discover or test the enemy's strength, dispositions, and reactions or to obtain other information.** Battalion-size task forces or larger organizations usually conduct a reconnaissance in force. A commander assigns a reconnaissance in force when the enemy is operating within an area and the commander cannot obtain adequate intelligence by any other means. A unit may also conduct a reconnaissance in force in restrictive terrain where the enemy is likely to ambush smaller reconnaissance forces. A reconnaissance in force is an aggressive reconnaissance, conducted as an offensive operation with clearly stated reconnaissance objectives. The overall goal of a reconnaissance in force is to determine enemy weaknesses that can be

exploited. It differs from other reconnaissance operations because it is normally conducted only to gain information about the enemy and not the terrain. The commander plans for both the retrograde or reinforcement of the force, in case it encounters superior enemy forces, and for the exploitation of its success in advance.

SPECIAL RECONNAISSANCE

5-10. *Special reconnaissance* includes reconnaissance and surveillance actions conducted as a special operation in hostile, denied, or politically sensitive environments to collect or verify information of strategic or operational significance, employing military capabilities not normally found in conventional forces (JP 3-05). These actions provide an additional capability for commanders and supplement other conventional reconnaissance and surveillance actions. Even with long-range sensors and overhead platforms, some information can be obtained only by visual observation or other collection methods in the target area. Special operations forces capabilities for gaining access to denied and hostile areas, worldwide communications, and specialized aircraft and sensors enable them to conduct special reconnaissance against targets inaccessible to other forces or assets. The reconnaissance that determined Osama bin Laden's location in Abbotabad, Pakistan was an example of special reconnaissance. Special reconnaissance activities include—

- Environmental reconnaissance.
- Armed reconnaissance.
- Target and threat assessment.
- Post strike reconnaissance.

(For additional information on these special reconnaissance activities see JP 3-05.)

SECURITY OPERATIONS

5-11. *Security operations* are those operations undertaken by a commander to provide early and accurate warning of enemy operations, to provide the force being protected with time and maneuver space within which to react to the enemy, and to develop the situation to allow the commander to effectively use the protected force. The ultimate goal of security operations is to protect the force from surprise and reduce the unknowns in any situation. The force being protected may be the civilian population, civil institutions, and civilian infrastructure with the unit's area of operations. A commander may conduct security operations to the front, flanks, or rear of the friendly force. The main difference between security operations and reconnaissance operations is that security operations orient on the force or facility being protected, while reconnaissance is enemy and terrain oriented. Security operations are shaping operations. As a shaping operation, economy of force is often a consideration of tactical security operations.

5-12. Security operations encompass five tasks—screen, guard, cover, area security, and local security.

- *Screen* is a security task that primarily provides early warning to the protected force.
- *Guard* is a security task to protect the main body by fighting to gain time while also observing and reporting information and preventing enemy ground observation of and direct fire against the main body. Units conducting a guard mission cannot operate independently because they rely upon fires and functional and multifunctional support assets of the main body.
- *Cover* is a security task to protect the main body by fighting to gain time while also observing and reporting information and preventing enemy ground observation of and direct fire against the main body.
- *Area security* is a security task conducted to protect friendly forces, installations, routes, and actions within a specific area.
- *Local security* is a security task that includes low-level security activities conducted near a unit to prevent surprise by the enemy.

5-13. The screen, guard, and cover security tasks, respectively, contain increasing levels of combat power and provide increasing levels of security for the main body. However, more combat power in the security force means less for the main body. Area security preserves the commander's freedom to move reserves, position fire support means, provide for mission command, and conduct sustaining operations. Local security provides immediate protection to the friendly force.

5-14. All maneuver forces are capable of conducting security operations. All three types of Army BCTs—armored, infantry, and Stryker—have conduct security operations as part of their mission essential task list. None of the BCTs has the cover, guard, and screen security tasks as part of their Army mission essential task list. A commander should ensure that subordinate units perform those specific security tasks required by the situation. Habitual support relationships with attachments and standard operating procedures (SOPs) are required to obtain proficiency in the conduct of these tasks.

5-15. Successful security operations depend on properly applying five fundamentals:

- Provide early and accurate warning.
- Provide reaction time and maneuver space.
- Orient on the force or facility to be secured.
- Perform continuous reconnaissance.
- Maintain enemy contact.

TROOP MOVEMENT

5-16. **Troop movement is the movement of troops from one place to another by any available means.** The ability of a commander to posture friendly forces for a decisive or shaping operation depends on the commander's ability to move that force. The essence of battlefield agility is the capability to conduct rapid and orderly movement to concentrate combat power at decisive points and times. Successful movement places troops and equipment at their destination at the proper time, ready for combat. The three types of troop movement are administrative movement, tactical road march, and approach march.

METHODS OF TROOP MOVEMENT

5-17. Troop movements are made by dismounted and mounted marches using organic combat and tactical vehicles and motor transport air, rail, and water means in various combinations. The method employed depends on the situation, the size and composition of the moving unit, the distance the unit must cover, the urgency of execution, and the condition of the troops. It also depends on the availability, suitability, and capacity of the different means of transportation. Troop movements over extended distances have extensive sustainment considerations. When necessary, dismounted and mounted marches can be hurried by conducting a forced march.

TACTICAL ROAD MARCH

5-18. **A tactical road march is a rapid movement used to relocate units within an area of operations to prepare for combat operations.** Units maintain security against enemy air attack and prepare to take immediate action against an enemy ambush, although they do not expect contact with enemy ground forces. (If the moving unit anticipates making contact with significant enemy ground forces, it will use a mix of combat formations and movement techniques.)

5-19. The primary consideration of the tactical road march is rapid movement. However, the moving force employs security measures, even when contact with enemy ground forces is not expected. Units conducting road marches may or may not be organized into a combined arms formation. During a tactical road march, the commander is always prepared to take immediate action if the enemy attacks.

APPROACH MARCH

5-20. **An approach march is the advance of a combat unit when direct contact with the enemy is intended.** However, it emphasizes speed over tactical deployment. Armored, Stryker, and infantry forces conduct tactical road marches and approach marches.

MOVEMENT TECHNIQUES

5-21. The commander uses the combat formations described in FM 3-90 in conjunction with three movement techniques: traveling, traveling overwatch, and bounding overwatch. Figure 5-1 illustrates when a unit is most likely to use each technique.

MOVEMENT CONTROL

5-22. *Movement control* is the planning, routing, scheduling, and control of personnel and cargo movements over lines of communications; includes maintaining in-transit visibility of forces and material through the deployment and/or redeployment process. (JP 3-10). It is a continuum that involves coordinating and integrating logistics, movement information, and programs that span the strategic, operational, and tactical levels of war. The balancing of requirements against capabilities and assigning resources based on the commander's priorities guide the conduct of movement control. Movement control gives the commander the ability to deconflict the movement of units—troop movement—and the distribution of supplies and services inherent in sustainment.

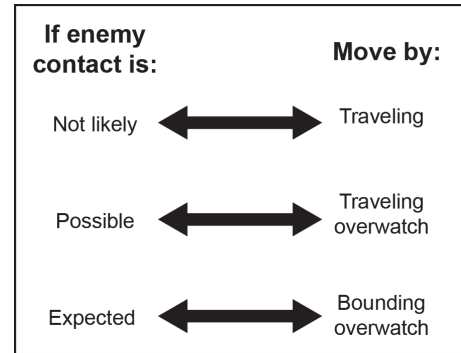


Figure 5-1. Movement techniques

RELIEF IN PLACE

5-23. A *relief in place* is an operation in which, by the direction of higher authority, all or part of a unit is replaced in an area of operations by the incoming unit. The responsibilities of the replaced elements for the mission and the assigned zone of operations are transferred to the incoming unit. The incoming unit continues the operation as ordered (JP 1-02). A commander conducts a relief in place as part of a larger operation, primarily to maintain the combat effectiveness of committed units. The higher headquarters directs when and where to conduct the relief and establishes the appropriate control measures. Normally, during the conduct of major combat operations, the unit relieved is defending. However, a relief may set the stage for resuming offensive operations. A relief may also serve to free the relieved unit for other tasks, such as decontamination, reconstitution, routine rest, resupply, maintenance, or specialized training. Sometimes, as part of a larger operation, a commander wants the enemy force to discover the relief, because that discovery might cause it to do something in response that is prejudicial to its interest, such as move reserves from an area where the friendly commander wants to conduct a penetration.

5-24. There are three techniques for conducting a relief: sequentially, simultaneously, or staggered. A sequential relief occurs when each element within the relieved unit is relieved in succession, from right to left or left to right, depending on how it is deployed. A simultaneous relief occurs when all elements are relieved at the same time. A staggered relief occurs when the commander relieves each element in a sequence determined by the tactical situation, not its geographical orientation. Simultaneous relief takes the least time to execute, but is more easily detected by the enemy. Sequential or staggered reliefs can take place over a significant amount of time. These three relief techniques can occur regardless of the mission and operational environment in which the unit is participating.

5-25. A relief can be characterized as either deliberate or hasty, depending on the amount of planning and preparations associated with the relief. The major differences are the depth and detail of planning and, potentially, the execution time. Detailed planning generally facilitates shorter execution time by determining exactly what the commander believes needs to be done and the resources needed to accomplish the mission. Deliberate planning allows the commander and staff to identify, develop, and coordinate solutions to most potential problems before they occur and to ensure the availability of resources when and where they are needed.

PASSAGE OF LINES

5-26. *Passage of lines* is an operation in which a force moves forward or rearward through another force's combat positions with the intention of moving into or out of contact with the enemy. A passage may be

designated as a forward or rearward passage of lines (JP 1-02). A commander conducts a passage of lines to continue an attack or conduct a counterattack, retrograde security or main battle forces, and anytime one unit cannot bypass another unit's position. The conduct of a passage of lines potentially involves close combat. It involves transferring the responsibility for an area of operations between two commanders. That transfer of authority usually occurs when roughly two-thirds of the passing force has moved through the passage point. If not directed by higher authority, the unit commanders determine—by mutual agreement—the time to pass command. They disseminate this information to the lowest levels of both organizations.

5-27. The commander's reasons for conducting a passage of lines are to—

- Sustain the tempo of an offensive operation.
- Maintain the viability of the defense by transferring responsibility from one unit to another.
- Transition from a delay or security operation by one force to a defense.
- Free a unit for another mission or task.

The headquarters directing the passage of lines is responsible for determining when the passage starts and finishes.

5-28. A passage of lines occurs under two basic conditions. **A *forward passage of lines* occurs when a unit passes through another unit's positions while moving toward the enemy. A *rearward passage of lines* occurs when a unit passes through another unit's positions while moving away from the enemy.** Ideally, a passage of lines does not interfere with conducting the stationary unit's operations.

ENCIRCLEMENT OPERATIONS

5-29. ***Encirclement operations* are operations where one force loses its freedom of maneuver because an opposing force is able to isolate it by controlling all ground lines of communications and reinforcement.** A unit can conduct offensive encirclement operations designed to isolate an enemy force or conduct defensive encirclement operations as a result of the unit's isolation by the actions of an enemy force. Encirclement operations occur because combat operations involving modernized forces are likely to be chaotic, intense, and highly destructive, extending across large areas containing relatively few units as each side maneuvers against the other to obtain positional advantage.

OFFENSIVE ENCIRCLEMENT OPERATIONS

5-30. The commander conducts offensive encirclements to isolate an enemy force. Typically, encirclements result from penetrations and envelopments, or are extensions of exploitation and pursuit operations. As such, they are not a separate form of offensive operations but an extension of an ongoing operation. They may be planned sequels or result from exploiting an unforeseen opportunity. They usually result from the linkup of two encircling arms conducting a double envelopment. However, they can occur in situations where the attacking commander uses a major obstacle, such as a shoreline, as a second encircling force. Although a commander may designate terrain objectives in an encirclement, isolating and defeating enemy forces are the primary goals. Ideally, an encirclement results in the surrender of the encircled force. This minimizes friendly force losses and resource expenditures.

DEFENDING ENCIRCLED

5-31. An encircled force can continue to defend encircled, conduct a breakout, exfiltrate toward other friendly forces, or attack deeper into enemy-controlled territory. The commander's form of maneuver once becoming encircled depends on the senior commander's intent and the mission variables of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC), including the—

- Availability of defensible terrain.
- Relative combat power of friendly and enemy forces.
- Sustainment status of the encircled force and its ability to be resupplied, including the ability to treat and evacuate wounded Soldiers.
- Morale and fighting capacity of the Soldiers.

5-32. Encirclement of a friendly force is likely to occur during highly mobile and fluid operations, or when operating in restrictive terrain. A unit may find itself encircled as a result of its offensive actions, as a detachment left in contact, when defending a strong point, when occupying a combat outpost, or when defending an isolated defensive position. The commander anticipates becoming encircled when assigned a stay-behind force mission, or when occupying either a strong point or a combat outpost. The commander then makes the necessary preparations.

5-33. The senior commander within an encirclement assumes command over all encircled forces and takes immediate action to protect them. In the confusion leading to an encirclement, it may be difficult to even determine what units are being encircled, let alone identify the senior commander. However, the senior commander must be determined as quickly as possible. When that commander determines the unit is about to be encircled, the commander must decide quickly what assets stay and what assets leave. The commander immediately informs higher headquarters of the situation. Simultaneously, the commander directs the accomplishment of the following tasks—

- Establish security.
- Reestablish a chain of command.
- Establish a viable defense.
- Maintain morale.

5-34. The commander positions security elements as far forward as possible to reestablish contact with the enemy and provide early warning. Vigorous patrolling begins immediately. Each unit clears its position to ensure that there are no enemy forces within the perimeter. Technical assets, such as Joint Surveillance Target Attack Radar System (JSTARS) and electronic warfare systems, augment local security and locate those areas along the perimeter where the enemy is deploying additional forces.

5-35. The commander reestablishes unity of command. The commander reorganizes any fragmented units and places Soldiers separated from their parent units under the control of other units. The commander establishes a clear chain of command throughout the encircled force, reestablishes communications with units outside the encirclement, and adjusts support relationships to reflect the new organization.

BREAKOUT FROM AN ENCIRCLEMENT

5-36. **A breakout is an operation conducted by an encircled force to regain freedom of movement or contact with friendly units. It differs from other attacks only in that a simultaneous defense in other areas of the perimeter must be maintained.** A breakout is both an offensive and a defensive operation. An encircled force normally attempts to conduct breakout operations when one of the following four conditions exist:

- The commander directs the breakout or the breakout falls within the intent of a higher commander.
- The encircled force does not have sufficient relative combat power to defend itself against enemy forces attempting to reduce the encirclement.
- The encircled force does not have adequate terrain available to conduct its defense.
- The encircled force cannot sustain itself long enough to be relieved by forces outside the encirclement.

EXFILTRATION

5-37. If the success of a breakout attack appears questionable, or if it fails and a relief operation is not planned, one way to preserve a portion of the force is through organized exfiltration. (FM 3-90 describes exfiltration in more detail.)

ATTACKING DEEPER INTO ENEMY TERRITORY

5-38. A course of action that the enemy is not likely to expect from an encircled force is to attack deeper to seize key terrain. It involves great risk but may offer the only feasible course of action under some circumstances. Attacking may allow the encircled unit to move to a location where it can be extracted by

other ground, naval, or air forces. It is only feasible if a unit can sustain itself while isolated, although that sustainment can come from aerial resupply and enemy supply stocks.

5-39. When the enemy is attacking, an encircled friendly force that attacks deeper into the enemy rear may disrupt the enemy’s offense and provide an opportunity for linkup from another direction. If the enemy is defending and the attacking force finds itself isolated through its own offensive action, it may continue the attack toward its assigned objective or a new objective located on more favorable defensive terrain.

LINKUP

5-40. A *linkup* is a meeting of friendly ground forces, which occurs in a variety of circumstances. It happens when an advancing force reaches an objective area previously seized by an airborne or air assault. It occurs when an encircled element breaks out to rejoin friendly forces or a force comes to the relief of an encircled force. It also occurs when converging maneuver forces meet. Both forces may be moving toward each other, or one may be stationary. Whenever possible, joining forces exchange as much information as possible before starting an operation.

5-41. The headquarters ordering the linkup establishes—

- A common operational picture using available mission command systems, such as blue force tracker.
- Command relationship and responsibilities of each force before, during, and after linkup.
- Coordination of fire support before, during, and after linkup, including control measures.
- Linkup method.
- Recognition signals and communication procedures, including pyrotechnics, armbands, vehicle markings, gun-tube orientation, panels, colored smoke, lights, and challenge and passwords.
- Operations to conduct following linkup.

URBAN OPERATIONS

5-42. Commanders conducting major urban operations use their ability to visualize how doctrine and military capabilities are applied within the context of the urban environment. An operational framework is the basic foundation for this visualization. In turn, this visualization forms the basis of operational design and decisionmaking. To accurately visualize, describe, and direct the conduct of operations in an urban environment, commanders and their staffs must understand the basic fundamentals applicable to most urban operations. (See table 5-1.)

Table 5-1. Fundamentals of urban operations

<i>Fundamentals of urban operations</i>	
Perform inform and influence activities aggressively	Separate the noncombatants from combatants
Maintain a close combat capability	Transition control
Avoid the attrition approach	Create a collaborative information environment
Control the essential	Understand how Soldiers and civilians react under the pressure of combat in an urban environment
Minimize collateral damage	Restore essential services
Preserve critical infrastructure	

5-43. The impact of the urban operations environment often differs from one operation to the next. However, some fundamentals apply to urban operations regardless of the mission, geographical location, or level of command. Some of these fundamentals are not exclusive to urban environments. Yet, they are particularly relevant to an environment dominated by man-made structures and a dense noncombatant

population. Vitality, these fundamentals help to ensure that every action taken by a commander operating in an urban environment contributes to the desired end-state of the major operation.

KEY TACTICAL CONSIDERATIONS

5-44. Commanders and planners of major operations must thoroughly understand the tactical urban battle as well as the effects of that environment on men, equipment, and systems. The complexity of urban environment changes and often compresses many tactical factors typically considered in the planning process. These compressed tactical factors include—

- Time.
- Distances.
- Density.
- Combat power.
- Levels of war.
- Decision making.

Commanders and their staffs should carefully review ATTP 3-06.11 for techniques that support tactical urban operations.

URBAN OFFENSIVE TASKS

5-45. The performance of offensive tasks in an urban environment is one of the most challenging missions that military forces can undertake. Campaigns and wars have sometimes hinged on their success or failure. Urban offensive tasks are costly in resources, even when successful, and commanders do not lightly enter into them. Once engaged, units execute urban offensive tasks rapidly and decisively. Enemy forces defending in urban terrain may gain advantages from the environment, while friendly force capabilities may diminish. Despite the challenges, forces can successfully perform offensive tasks in an urban environment by combining existing offensive doctrine with a thorough understanding of the environment.

5-46. Like all offensive tasks, commanders design offensive tasks in an urban environment to impose their will on the enemy. Commanders often conduct offensive tasks in an urban environment to destroy, defeat, or neutralize an enemy force. However, their purpose may be to achieve some effect relating to the population or infrastructure of the urban area. Army forces may conduct offensive tasks to secure a port or a communications center, to eliminate an enemy to a friendly government or the urban population, or to deny the enemy use of urban infrastructure. No matter what the purpose is, commanders must use a combined arms approach to for successfully perform offensive tasks in an urban environment.

URBAN DEFENSIVE TASKS

5-47. The skillful defense of an urban area can decisively affect the joint campaign. An urban area offers many advantages to defending forces. A skillful defender can use the advantages of the urban environment to negate combat power disparities, blunt the tempo of an attack, attrit enemy forces, and sap the morale of attacking troops. The defender gains an opportunity to concentrate resources, reconstitute attrited units, and transition to the offense. A successful defense of an urban area can also deny the enemy vital resources. Defense in the urban environment is an essential capability and can significantly affect the outcome of entire campaigns and the achievement of national objectives.

5-48. Army forces defend urban areas for various reasons: defeating an enemy attack, buying time, economizing forces, protecting an ally's political institutions and economic infrastructure, protecting an urban population, shaping conditions for decisive offensive operations, and shaping conditions for executing stability or defense support of civil authorities operations. During force projection operations, forces may use urban areas as initial lodgment areas that commanders may need to defend at the outset until they build sufficient combat power to transition to other tasks. Usually two or more of these purposes apply to the urban defense. The conduct of defensive tasks in an urban environment provides commanders great opportunities to turn the environment's characteristics to the advantage of Army forces. Urban areas greatly enhance the combat power of defending units.

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Glossary

The glossary lists acronyms and terms with Army or joint definitions. Where Army and joint definitions differ, (Army) precedes the definition. Terms for which ADRP 3-90 is the proponent are marked with an asterisk (*). The proponent publication for other terms is listed in parentheses after the definition.

SECTION I – ACRONYMS AND ABBREVIATIONS

AA	assembly area
ADAM	air defense airspace management
ADP	Army doctrine publication
ADRP	Army doctrine reference publication
ALO	air liaison officer
AMD	air and missile defense
AO	area of operations
AR	Army regulation
ARFOR	Army forces
ASCOPE	areas, structures, capabilities, organizations, people, and events
ATP	Army tactics publication
ATTP	Army tactics, techniques, and procedures
BAE	brigade aviation element
BCT	brigade combat team
BHL	battle handover line
CAS	close air support
CBRN	chemical, biological radiological, and nuclear
CFL	coordinated fire line
CID	criminal investigation division
CJCSM	Chairman of the Joint Chiefs of Staff manual
COA	course of action
DA	Department of the Army
EOD	explosive ordnance disposal
FCL	final coordination line
FEBA	forward edge of the battle area
FLOT	forward line of own troops
FM	field manual
FPF	final protective fire
FSCM	fire support coordination measure
FSCOORD	fire support coordinator
G-1	assistant chief of staff, personnel
G-2	assistant chief of staff, intelligence
G-4	assistant chief of staff, logistics
G-8	assistant chief of staff, resource management

G-9	assistant chief of staff, civil affairs operations
GPS	global positioning system
IPB	intelligence preparation of the battlefield
JFACC	joint force air component commander
JP	joint publication
JSTARS	joint surveillance target attack radar system
LD	line of departure
LOA	limit of advance
LOC	line of communication
MBA	main battle area
MCRP	Marine Corps reference publication
MCWP	Marine Corps warfighting publication
MEB	maneuver enhancement brigade
METT-TC	mission, enemy, terrain and weather, troops and support available, time available, and civil considerations
MLRS	multiple launch rocket system
mm	millimeter
OAKOC	observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment
OPCON	operational control
PLD	probable line of deployment
PMESII-PT	political, military, economic, social, information, infrastructure, physical environment, and time
POL	petroleum, oils, and lubricants
S-1	personnel staff officer
S-2	intelligence staff officer
S-4	logistics staff officer
S-9	civil affairs operations staff officer
SOP	standard operating procedure
STANAG	standardization agreement
TACON	tactical control
TACP	tactical air control party
TTP	tactics, techniques, and procedures
U.S.	United States
USAF	U.S. Air Force

SECTION II – TERMS

***actions on contact**

A series of combat actions, often conducted nearly simultaneously, taken on contact with the enemy to develop the situation.

active air defense

Direct defensive action taken to destroy, nullify, or reduce the effectiveness of hostile air and missile threats against friendly forces and assets. It includes the use of aircraft, air defense weapons, electronic warfare, and other available weapons. (JP 3-01)

airspace control

A process used to increase operational effectiveness by promoting the safe, efficient, and flexible use of airspace. (JP 3-52)

***alternate position**

A defensive position that the commander assigns to a unit or weapon system for occupation when the primary position becomes untenable or unsuitable for carrying out the assigned task.

***approach march**

The advance of a combat unit when direct contact with the enemy is intended.

***area defense**

A defensive task that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright.

area of influence

A geographical area wherein a commander is directly capable of influencing operations by maneuver or fire support systems normally under the commander's command or control. (JP 3-0)

area of interest

That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory. This area also includes areas occupied by enemy forces who could jeopardize the accomplishment of the mission. (JP 3-0)

area of operations

An operational area defined by the joint force commander for land and maritime forces that should be large enough to accomplish their missions and protect their forces. (JP 3-0)

***area reconnaissance**

A form of reconnaissance that focuses on obtaining detailed information about the terrain or enemy activity within a prescribed area.

***area security**

A security task conducted to protect friendly forces, installations, routes, and actions within a specific area.

***art of tactics**

This consists of three interrelated aspects: the creative and flexible array of means to accomplish assigned missions, decisionmaking under conditions of uncertainty when faced with a thinking and adaptive enemy, and understanding the effects of combat on Soldiers.

***assailable flank**

A flank exposed to attack or envelopment.

***assault position**

A covered and concealed position short of the objective from which final preparations are made to assault the objective.

***assault time**

The moment to attack the initial objectives throughout the geographical scope of the operation.

***attack**

An offensive task that destroys or defeats enemy forces, seizes and secures terrain, or both.

***attack by fire position**

The general position from which a unit conducts the tactical task of attack by fire.

Glossary

***attack position**

The last position an attacking force occupies or passes through before crossing the line of departure.

***avenue of approach**

The air or ground route leading to an objective (or key terrain in its path) that an attacking force can use.

***axis of advance**

(Army) The general area through which the bulk of a unit's combat power must move.

***battalion**

A unit consisting of two or more company-, battery-, or troop-size units and a headquarters.

***battalion task force**

A maneuver battalion-size unit consisting of a battalion headquarters, at least one assigned company-size element, and at least one attached company-size element from another maneuver or support unit (functional or multifunctional).

***battery**

A battery is a company-size unit in a fires or air defense artillery battalion.

***battle**

A battle consists of a set of related engagements that lasts longer and involves larger forces than an engagement.

***battle handover line**

A designated phase line on the ground where responsibility transitions from the stationary force to the moving force and vice versa.

***battle position**

A defensive location oriented on a likely enemy avenue of approach.

***breakout**

An operation conducted by an encircled force to regain freedom of movement or contact with friendly units. It differs from other attack only in that simultaneous defense in other areas of the perimeter must be maintained.

***brigade**

A unit consisting of two or more battalions and a headquarters company or detachment.

***brigade combat team**

A combined arms organization consisting of a brigade headquarters, at least two maneuver battalions, and necessary supporting functional capabilities.

***bypass criteria**

Measures during the conduct of an offensive operation established by higher headquarters that specify the conditions and size under which enemy units and contact may be avoided.

close combat

Warfare carried out on land in a direct-fire fight, supported by direct and indirect fires and other assets. (ADRP 3-0)

***combat formation**

A combat formation is an ordered arrangement of forces for a specific purpose and describes the general configuration of a unit on the ground.

combat information

Unevaluated data, gathered by or provided directly to the tactical commander which, due to its highly perishable nature or the criticality of the situation, cannot be processed into tactical intelligence in time to satisfy the users tactical intelligence requirements. (JP 1-02)

combined arms

The synchronized and simultaneous application of arms to achieve an effect greater than if each arm was used separately or sequentially. (ADRP 3-0)

***combined arms team**

Two or more arms mutually supporting one another, usually consisting of a mixture of infantry, armor, aviation, field artillery, air defense artillery, and engineers.

***committed force**

A force in contact with an enemy or deployed on a specific mission or course of action which precludes its employment elsewhere.

***company**

A company is a unit consisting of two or more platoons, usually of the same type, with a headquarters and a limited capacity for self-support.

***company team**

A combined arms organization formed by attaching one or more nonorganic armor, mechanized infantry, Stryker infantry, or infantry platoons to a tank, mechanized infantry, Stryker, or infantry company, either in exchange for, or in addition to, its organic platoons.

concept of operations

A verbal or graphic statement that clearly and concisely expresses what the joint force commander intends to accomplish and how it will be done using available resources. (JP 5-0)

coordinating altitude

An airspace coordinating measure that uses altitude to separate users as the transition between different airspace coordinating entities. (JP 3-52)

countermobility operations

Those combined arms activities that use or enhance the effects of natural and manmade obstacles to deny an adversary freedom of movement and maneuver. (FM 3-34)

***cover**

A security task to protect the main body by fighting to gain time while also observing and reporting information and preventing enemy ground observation of and direct fire against the main body.

***crew**

Consists of all personnel operating a particular system.

***decisive engagement**

An engagement in which a unit is considered fully committed and cannot maneuver or extricate itself. In the absence of outside assistance, the action must be fought to a conclusion and either won or lost with the forces at hand.

***defeat in detail**

Concentrating overwhelming combat power against separate parts of a force rather than defeating the entire force at once.

defeat mechanism

A method through which friendly forces accomplish their mission against enemy opposition. (ADRP 3-0)

defensive task

A task conducted to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability tasks. (ADRP 3-0)

delaying operation

An operation in which a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on the enemy without, in principle, becoming decisively engaged. (JP 3-04)

Glossary

***deliberate operation**

An operation in which the tactical situation allows the development and coordination of detailed plans, including multiple branches and sequels.

***detachment**

A detachment is a tactical element organized on either a temporary or permanent basis for special duties.

***direction of attack**

A specific direction or assigned route a force uses and does not deviate from when attacking.

***disengagement line**

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.

***division**

An Army echelon of command above brigade and below corps. It is a tactical headquarters which employs a combination of brigade combat teams, multifunctional brigades, and functional brigades in land operations.

***encirclement operations**

Operations where one force loses its freedom of maneuver because an opposing force is able to isolate it by controlling all ground lines of communication and reinforcement.

engagement

A tactical conflict, usually between opposing, lower echelon maneuver forces. (JP 3-0)

***exploitation**

An offensive task that usually follows a successful attack and is designed to disorganize the enemy in depth.

***final coordination line**

A phase line close to the enemy position used to coordinate the lifting or shifting of supporting fires with the final deployment of maneuver elements.

final protective fire

An immediately available preplanned barrier of fires designed to impede enemy movement across defensive lines or areas. (JP 1-02)

fires warfighting function

The related tasks and systems that provide collective and coordinated use of Army indirect fires, air and missile defense, and joint fires through the targeting process. (ADRP 3-0)

***fire team**

A small military unit.

***flank**

The right or left limit of a unit.

***flanking position**

A geographical location on the flank of a force from which effective fires can be placed on that flank.

***forms of maneuver**

Distinct tactical combinations of fire and movement with a unique set of doctrinal characteristics that differ primarily in the relationship between the maneuvering force and the enemy.

forward edge of the battle area

The foremost limit 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 3-09.3)

***forward passage of lines**

Occurs when a unit passes through another unit's positions while moving toward the enemy.

***guard**

A security task to protect the main body by fighting to gain time while also observing and reporting information and preventing enemy ground observation of and direct fire against the main body. Units conducting a guard mission cannot operate independently because they rely upon fires and functional and multifunctional support assets of the main body.

***hasty operation**

An operation in which a commander directs immediately available forces, using fragmentary orders, to perform activities with minimal preparation, trading planning and preparation time for speed of execution.

intelligence warfighting function

The related tasks and systems that facilitate understanding of the enemy, terrain, and civil considerations. (ADRP 3-0)

in-theater reconstitution

The extraordinary actions that commanders take to restore units to a desired level of combat effectiveness commensurate with mission requirements and available resources. (ADP 4-0)

***limit of advance**

A phase line used to control forward progress of the attack. The attacking unit does not advance any of its elements or assets beyond the limit of advance, but the attacking unit can push its security forces to that limit.

***line of departure**

A phase line crossed at a prescribed time by troops initiating an offensive task.

***linkup**

A meeting of friendly ground forces, which occurs in a variety of circumstances.

***local security**

A security task that includes low-level security activities conducted near a unit to prevent surprise by the enemy.

***main battle area**

The area where the commander intends to deploy the bulk of the unit's combat power and conduct decisive operations to defeat an attacking enemy.

***main body**

The principal part of a tactical command or formation. It does not include detached elements of the command, such as advance guards, flank guards, and covering forces.

maneuver

Employment of forces in the operational area through movement in combination with fires to achieve a position of advantage in respect to the enemy. (JP 3-0)

mission command warfighting function

The related tasks and systems that develop and integrate those activities enabling a commander to balance the art of command and the science of control in order to integrate the other warfighting functions. (ADRP 3-0)

***mobile defense**

A defensive task that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force.

mobility

A quality or capability of military forces which permits them to move from place to place while retaining the ability to fulfill their primary mission. (JP 3-17)

mobility operations

Those combined arms activities that mitigate the effects of natural and man-made obstacles to enable freedom of movement and maneuver. (ATTP 3-90.4)

movement and maneuver warfighting function

The related tasks and systems that move and employ forces to achieve a position of relative advantage over the enemy and other threats. (ADRP 3-0)

movement control

The planning, routing, scheduling, and control of personnel and cargo movements over lines of communications; includes maintaining in-transit visibility of forces and material through the deployment and/or redeployment process. (JP 3-10)

***movement to contact**

An offensive task designed to develop the situation and establish or regain contact.

***objective**

A location on the ground used to orient operations, phase operations, facilitate changes of direction, and provide for unity of effort.

***objective rally point**

A rally point established on an easily identifiable point on the ground where all elements of the infiltrating unit assemble and prepare to attack the objective.

offensive task

A task conducted to defeat and destroy enemy forces and seize terrain, resources, and population centers. (ADRP 3-0)

operation

A military action or the carrying out of a strategic, tactical, Service, training, or administrative military mission. (JP 3-0)

passage of lines

An operation in which a force moves forward or rearward through another force's combat positions with the intention of moving into or out of contact with the enemy. A passage may be designated as a forward or rearward passage of lines. (JP 1-02)

passive air defense

All measures, other than active air defense, taken to minimize the effectiveness of hostile air and missile threats against friendly forces and assets. (JP 3-01)

personnel recovery

The sum of military, diplomatic, and civil efforts to prevent isolation incidents and to return isolated persons to safety or friendly control. (FM 3-50.1)

***piecemeal commitment**

The immediate employment of units in combat as they become available instead of waiting for larger aggregations of units to ensure mass, or the unsynchronized employment of available forces so that their combat power is not employed effectively.

***platoon**

A subdivision of a company or troop consisting of two or more squads or sections.

***point of departure**

The point where the unit crosses the line of departure and begins moving along a direction of attack .

***primary position**

The position that covers the enemy's most likely avenue of approach into the area of operations.

***probable line of deployment**

A phase line that designates the location where the commander intends to deploy the unit into assault formation before beginning the assault.

protection warfighting function

The related tasks and systems that preserve the force so the commander can apply maximum combat power to accomplish the mission. (ADRP 3-0)

prudent risk

A deliberate exposure to potential injury or loss when the commander judges the outcome in terms of mission accomplishment as worth the cost. (ADP 6-0)

***pursuit**

An offensive task designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it.

rally point

1. An easily identifiable point on the ground at which units can reassemble and reorganize if they become dispersed. 2. An easily identifiable point on the ground at which aircrews and passengers can assemble and reorganize following an incident requiring a forced landing. (ADRP 1-02)

***rearward passage of lines**

Occurs when a unit passes through another unit's positions while moving away from the enemy.

reconnaissance

A mission undertaken to obtain, by visual observation or other detection methods, information about the activities and resources of an enemy or adversary, or to secure data concerning the meteorological, hydrographical or geographical characteristics and the indigenous population of a particular area. (JP 2-0)

***reconnaissance in force**

A deliberate combat operation designed to discover or test the enemy's strength, dispositions, and reactions or to obtain other information.

***reconnaissance objective**

A terrain feature, geographic area, enemy force, adversary, or other mission or operational variable, such as specific civil considerations, about which the commander wants to obtain additional information.

***reconnaissance squadron**

A unit consisting of two or more company, battery, or troop size units and a headquarters.

relief in place

An operation in which, by the direction of higher authority, all or part of a unit is replaced in an area of operations by the incoming unit. The responsibilities of the replaced elements for the mission and the assigned zone of operations are transferred to the incoming unit. The incoming unit continues the operation as ordered. (JP 1-02)

***reserve**

That portion of a body of troops which is withheld from action at the beginning of an engagement, in order to be available for a decisive movement.

***retirement**

A form of retrograde in which a force out of contact moves away from the enemy.

***retrograde**

A defensive task that involves organized movement away from the enemy.

***route reconnaissance**

A directed effort to obtain detailed information of a specified route and all terrain from which the enemy could influence movement along that route.

rules of engagement

Directives issued by competent military authority that delineate the circumstances and limitations under which United States forces will initiate and/or continue combat engagement with other forces encountered. (JP 1-04)

***screen**

A security task that primarily provides early warning to the protected force.

***science of tactics**

Encompasses the understanding of those military aspects of tactics—capabilities, techniques, and procedures—that can be measured and codified.

***section**

An Army unit smaller than a platoon and larger than a squad.

***security area**

That area that begins at the forward area of the battlefield and extends as far to the front and flanks as security forces are deployed. Forces in the security area furnish information on the enemy and delay, deceive, and disrupt the enemy and conduct counterreconnaissance.

***security operations**

Those operations undertaken by a commander to provide early and accurate warning of enemy operations, to provide the force being protected with time and maneuver space within which to react to the enemy, and to develop the situation to allow the commander to effectively use the protected force.

special reconnaissance

Includes reconnaissance and surveillance actions conducted as a special operation in hostile, denied, or politically sensitive environments to collect or verify information of strategic or operational significance, employing military capabilities not normally found in conventional forces. (JP 3-05)

***squad**

A small military unit typically containing two or more fire teams.

***striking force**

A dedicated counterattack force in a mobile defense constituted with the bulk of available combat power.

***strong point**

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.

***subsequent position**

A position that a unit expects to move to during the course of battle.

***supplementary position**

A defensive position located within a unit's assigned area of operations 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.

***support by fire position**

The general position from which a unit conducts the tactical mission task of support by fire.

survivability

All aspects of protecting personnel, weapons, and supplies while simultaneously deceiving the enemy. (JP 3-34)

***survivability move**

A move that involves rapidly displacing a unit, command post, or facility in response to direct and indirect fires, the approach of an enemy unit, a natural phenomenon or as a proactive measure based on intelligence, meteorological data and risk analysis of enemy capabilities and intentions (including weapons of mass destruction).

sustainment warfighting function

The related tasks and systems that provide support and services to ensure freedom of action, extend operational reach, and prolong endurance. (ADRP 3-0)

tactical level of war

The level of war at which battles and engagements are planned and executed to achieve military objectives assigned to tactical units or task forces. (JP 3-0)

***tactical road march**

A rapid movement used to relocate units within an area of operations to prepare for combat operations.

tactics

The employment and ordered arrangement of forces in relation to each other. (CJCSM 5120.01)

***time of attack**

The moment the leading elements of the main body cross the line of departure, or in a night attack, the point of departure.

***troop**

A company size unit in a cavalry organization.

***troop movement**

The movement of troops from one place to another by any available means.

***uncommitted force**

A force that is not in contact with an enemy and is not already deployed on a specific mission or course of action.

warfighting function

A group of tasks and systems (people, organizations, information, and processes) united by a common purpose that commanders use to accomplish missions and training objectives. (ADRP 3-0)

withdrawal operation

A planned retrograde operation in which a force in contact disengages from an enemy force and moves in a direction away from the enemy. (JP 1-02)

***zone reconnaissance**

A form of reconnaissance that involves a directed effort to obtain detailed information on all routes, obstacles, terrain, and enemy forces within a zone defined by boundaries.

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RAYMOND T. ODIERNO
General, United States Army
Chief of Staff

Official:



JOYCE E. MORROW
Administrative Assistant to the
Secretary of the Army
1218508

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