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COMBINED ARMS BATTALION

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Combined Arms Battalion

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Preface

ATP 3-90.5 describes the techniques and procedures to tactically employ the combined arms battalion (CAB), the primary maneuver force of the Armored brigade combat team (ABCT) in unified land operations. While providing basic doctrinal principles, it attempts to refer tactical discussion out to FM 3-96 and other appropriate manuals. This publication provides techniques and procedures appropriate for the CAB to effectively exercise the warfighting functions of command and control, movement and maneuver, intelligence, fires, sustainment, and protection, in the conduct of sustained combined arms and close combat operations. The techniques and procedures described herein are intended as a guide and are to be viewed as flexible in application, depending on the factors of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations. Each situation in combat must be resolved by adaptable leaders who exercise initiative to intelligently interpret and apply the doctrine set forth herein.

The principal audience for ATP 3-90.5 is the commander and staff of the CAB and its subordinate units. This publication emphasizes CAB operations with related information at the Armor and mechanized Infantry company team level. Greater details and techniques on Armor and mechanized Infantry company team operations can be found in ATP 3-90.1.

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 by the law of war and the applicable rules of engagement. (See FM 6-27 for more information.)

ATP 3-90.5 uses joint terms where applicable. Selected joint and Army terms and definitions appear in both the glossary and the text. For definitions shown in the text, the term is italicized and the number of the proponent publication follows the definition. This publication is not the proponent for any Army terms.

ATP 3-90.5 applies to the Active Army, Army National Guard/Army National Guard of the United States, and United States Army Reserve unless otherwise stated.

The proponent of ATP 3-90.5 is the United States Army Maneuver Center of Excellence. The preparing agency is the Maneuver Center of Excellence, Directorate of Training and Doctrine, Doctrine and Collective Training Division, Fort Benning, Georgia. Send comments and recommendations on DA Form 2028 (*Recommended Changes to Publications and Blank Forms*) to Commander, United States Army Maneuver Center of Excellence, Directorate of Training and Doctrine, Doctrine and Collective Training Division, ATTN: ATZK-TDD, Fort Benning, GA 31905-5410; by e-mail to usarmy.benning.mcoe.mbx.doctrine@mail.mil; or submit an electronic DA Form 2028.

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Introduction

The focus of this Army techniques publication is to discuss how CAB leaders execute battalion-level tasks from planning through preparation and execution. The principles for planning operations are based on ADP 5-0, FM 6-0, and the military decision-making process. FM 3-90-1 discusses offense and defense, while ADP 3-07 covers stability operations tasks, and FM 3-98 details reconnaissance and security operations. This Army techniques publication discusses some alternative planning processes in a time-constrained environment, but focuses more on identifying tasks leaders should plan and prepare while conducting unified land operations in varied operational environments.

U.S. forces must retain those skills that have served them so well the last decade and develop a skill set necessary to identify and face a hybrid threat of regular and irregular forces that will combine conventional and unconventional tactics while fighting in complex terrain to limit U.S. forces' ability to develop the situation out of contact.

U.S. forces will continue to operate in nation-states of varying degrees and actors (nation and nonstate) that are not always readily identifiable and can quickly change allegiances. The threat will attempt to use all means at their disposal to counter, interrupt, or degrade U.S. advantages in communications, surveillance, long-range precision fires, armor protection, and mobility. Commanders must continue to develop the Soldiers' ability to operate in a variety of environments with and amongst a multitude of actors. Commanders must prepare to face more conventional threats by relearning and sharpening skills to conduct decisive actions and transition to and from offense, defense, and stability operations.

This publication—

- Provides the doctrinal guidance for commanders, staffs, and subordinate commanders and leaders of the organizations who are responsible for conducting operations of the CAB (planning, preparing, executing, and assessing).
- Serves as an authoritative reference for personnel who—
  - Develop doctrine (fundamental principles and tactics, techniques, and procedures) materiel and force structure.
  - Develop institution and unit training.
  - Develop unit tactical standard operating procedures for CAB operations.
- Does not cover deployment, reception, staging, onward movement, and integration or redeployment operations. Additionally, it does not provide details on defense support of civil authorities within the continental United States. (See ADP 3-28 and its subordinate Army techniques publications for more information.)
- Provides urban operation considerations. (See ATTP 3-06.11 for more information.)
- Highlights the importance of the forward support company and likely engineer augmentation by discussing their employment and contributions to all CAB operations.
- Reflects and supports the Army operations doctrine as stated in ADP 3-0, ADP 5-0, FM 3-90-1, FM 3-90-2, and FM 3-96. This is not intended as the sole reference for CAB operations; rather, it is intended to be used in conjunction with existing doctrine.
- Provides CABs the framework in which they can operate as part of an ABCT, or when attached to an Infantry brigade combat team (BCT) or Stryker BCT.

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Chapter 1
Overview and Organization

The mission of the combined arms battalion (CAB) is to close with and destroy enemy forces using fire, maneuver, and shock effect or to repel their assault by fire and counterattack. The CAB combines the efforts of its Armor and mechanized Infantry companies to execute tactical missions as part of an Armored brigade combat team (ABCT), or when augmenting another brigade combat team (BCT). CABs are part of the Army's principal formation for conducting combined arms operations, capable of deploying worldwide and conducting unified land operations.

SECTION I – OPERATIONAL OVERVIEW

1-1. While ABCTs are the Army's armored combined arms force, it is the CAB, with the main battle tanks, Infantry fighting vehicles (known as IFVs), 120-millimeter (mm) mortar systems, scouts, and Infantry squads that provides its tremendous striking power. The combination of firepower, mobility, protection, and information collection capabilities that make it invaluable to the ABCT commander when conducting unified land operations. Depending upon the threat, the CAB can fight without augmentation. It can also be tailored and task-organized to meet the precise needs of its missions. The precise needs of the mission are directly influenced by the operational environment.

OPERATIONAL ENVIRONMENT

1-2. The *operational environment* is a composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander (JP 3-0). As CAB commanders and their staffs better understand the operational environment (including the capabilities of organic and threat forces), they can skillfully employ and integrate the CABs' actions to create the conditions that lead to the desired end state. In a large-scale combat operation, the operational environment for the CAB will likely be part of a higher echelon commander's operational environment and therefore influenced by actions taken by that commander, adjacent units, and the CAB itself.

OPERATIONAL AND MISSION VARIABLES

1-3. CAB commanders and their staffs use the operational and mission variables as framing constructs to help build and refine situational understanding of the operational environment. They use the mission variables, in combination with operational variables, to help understand, visualize, describe, and direct operations.

OPERATIONAL VARIABLES

1-4. The operational variables are fundamental to developing a comprehensive understanding of the operational environment. Included within these variables are the enemy, friendly, and neutral capabilities as well as actions and interactions that are relevant to a specific operation. Political, military, economic, social, information, infrastructure, physical environment, and time (PMESII-PT) are the eight operational variables with a brief example of what each address as it pertains to the CAB:

- Political. Who or what has the power of governance within the region, area of operations (AO), area of influence, or area of interest (AOI)?
- Military. What are the military and paramilitary capabilities of all relevant actors (enemy, friendly, and neutral) in the area?

- Economic. What does the local economy produce or distribute and how does it impact or benefit the local population, if at all?
- Social. How does the cultural, religious, and ethnic makeup within an operational environment along with the beliefs, values, customs, and behaviors of society members influence daily life or individual or group dynamics?
- Information. What is the nature, scope, characteristics, and effects of individuals, organizations, and systems that collect, process, disseminate, or act on information?
- Infrastructure. How functional are the basic facilities, services, and installations of the community or society?
- Physical environment. How do the geography and man-made structures, as well as the climate and weather in the AO impact civilian and military activities?
- Time. How does the timing and duration of activities, events, or conditions within an operational environment impact the various actors in the operational environment?

1-5. An operational environment is more than just military capabilities; it is a combination of the interrelated variables, or systems and the nodes that link them. The individual elements of the operational variables do not exist in isolation from one another. When acted upon, each variable has the potential to have a positive, negative, or neutral influence on the remaining variables. The complex relationships make predicting how they will react difficult to do with any certainty. The CAB commander and staff must understand that the same action taken to influence the same operational variable one day may have a much different outcome the very next day because of the complex nature of the environment. (See FM 6-0, appendix A for a detailed description of the operational variables.)

1-6. The breadth of information covered within the operational variables and the analysis required to synthesize it all are beyond the capabilities of the CAB staff alone. Therefore, the CAB commander and staff must rely upon analysis done at the brigade and higher level in order to ensure greater depth of understanding. Additionally, as the operational environment is not static, the analysis of the variables is a continuous process, requiring the CAB commander and staff to continually request for updates from the higher headquarters.

MISSION VARIABLES

1-7. Mission variables include mission, enemy, terrain and weather, troops and support available, time available, civil considerations (METT-TC) and describe characteristics of the AO, focusing on how they may impact a mission. Using the operational variables as a source of relevant information for the mission variables allows CAB commanders to refine further their situational understanding of their operational environment and to visualize, describe, direct, lead, and assess operations. (See FM 6-0 for a more detailed description of the mission variables.)

1-8. The following are the six mission variables with a brief example of what each address as it pertains to the CAB:

- Mission. What has the CAB been ordered to do, and why?
- Enemy. What is the enemy doing, and why?
- Terrain and weather. What is the terrain's and weather's effect on the mission?
- Troops and support available. What assets are available to accomplish the mission and what is the combat potential of the unit?
- Time available. How much time does the CAB have to plan, prepare, and execute the assigned mission?
- Civil considerations. What is the influence of man-made infrastructure, civilian institutions, attitudes, and activities of civilian leaders, populations, and organizations in an AO on the conduct of military operations? This focused analysis of civil considerations is critical to providing the commander in-depth understanding of the civil component of the operational environment and the impact that this environment has on military operations.

1-9. Unlike PMESII-PT, the CAB staff is capable of doing its own METT-TC analysis without the analytical assistance of a higher headquarters. However, the METT-TC analysis is not a single event, but like

the operational variables, is a continual process. A more in-depth understanding of the mission variables assists the CAB staff during the operations process and when generating mission orders.

CIVIL CONSIDERATIONS

1-10. Understanding the situation is not complete without considering and understanding the civil aspects of the AO. Civil considerations include areas, structures, capabilities, organizations, people, and events (ASCOPE). The CAB commander and staff visualize and analyze civil considerations in terms of relevant—

- Areas. An analysis of key civilian areas in terms of how they affect the CAB's mission and how the CAB's mission affects the civilian areas.
- Structures. The analysis of how location, function, and capabilities of existing structures support or hinder the CAB's operations.
- Capabilities. The analysis of host nation (HN), aggressor nation, or some other body's capabilities that save, sustain, or enhance life.
- Organizations. The analysis of nonmilitary groups or institutions in the AO that influence and interact with the population, the CAB, and each other.
- People. The analysis of the nonmilitary personnel the CAB may encounter within the AO and how they can positively, negative, or neutrally support the CAB's mission.
- Events. The analysis of routine, cyclical, planned, or spontaneous activities that significantly affect organizations, people, and the CAB's operations.

1-11. At the CAB level, civil considerations generally focus on the immediate impact of civilians on military operations; however, they also consider larger, long-term diplomatic, economic, and information issues. Like the operational variables, the CAB staff requires the assistance of higher headquarters to do a thorough analysis of these considerations. The CAB may even receive a complete ASCOPE analysis from a higher headquarters, and therefore be responsible for providing updates as identified or requested to that higher headquarters.

1-12. The combination of mission variables, operational variables, and civil considerations assist the CAB commander and staff during the planning, preparing, and execution of operations. (See ATP 2-01.3 for a more in-depth discussion on the crosswalk between civil considerations and the operational variables.)

THREATS

1-13. Within its operational environment, the CAB may encounter threats, enemies, adversaries, and hybrid threats. Understanding the difference between these assists the CAB commander and staff in how to respond to each. A *threat* is any combination of actors, entities, or forces that have the capability and intent to harm U.S. forces, U.S. national interests, or the homeland (ADP 3-0). Threats may include individuals, groups, paramilitary or military forces, nation-states, or national alliances. An *enemy* is a party identified as hostile against which the use of force is authorized (ADP 3-0). An enemy is also called a combatant and is treated as such under the law of war. An *adversary* is a party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged (JP 3-0). A *hybrid threat* is the diverse and dynamic combination of regular forces, irregular forces, terrorists forces, or criminal elements unified to achieve mutually benefitting threat effects (ADP 3-0).

1-14. During combat operations, it is almost certain that multiple threats across the spectrum of enemy, adversary, and hybrid threat will be present on the battlefield. Because of this, the CAB may only be granted authorities to engage a particular portion of that threat. As a result, the CAB command, staff, and subordinate elements must clearly know who or what the threat is when planning for and executing operations. (See ADP 3-0 and ATP 2-01.3 for a more in-depth discussion on the different types of threats.)

UNIFIED LAND OPERATIONS

1-15. Unified land operations are the Army's basic warfighting doctrine; the Army's operational concept and contribution to unified action. *Unified land operations* are the simultaneous execution of offense, defense, stability, and defense support of civil authorities across multiple domains to shape operational environments, prevent conflict, prevail in large-scale ground combat, and consolidate gains as part of unified

action (ADP 3-0). Due to the scope and scale, a CAB may participate in gains consolidation, but will not be solely responsible for those activities within a consolidation area; that responsibility will lie with the division, corps, or higher.

DECISIVE ACTION

1-16. *Decisive action* is the continuous, simultaneous execution of offensive, defensive, and stability operations or defense support of civil authorities tasks (ADP 3-0). CABs can conduct any combination of these operations either independently or as part of a larger force. The CAB is best designed to execute offensive and defensive operations, but can support the execution of stability operations tasks. The CAB may also support homeland defense within the United States and its territories. In such cases, the CAB may combine the elements of defense support of civil authorities (DSCA) and, as required, offense and defense in conducting decisive action. (See figure 1-1.)

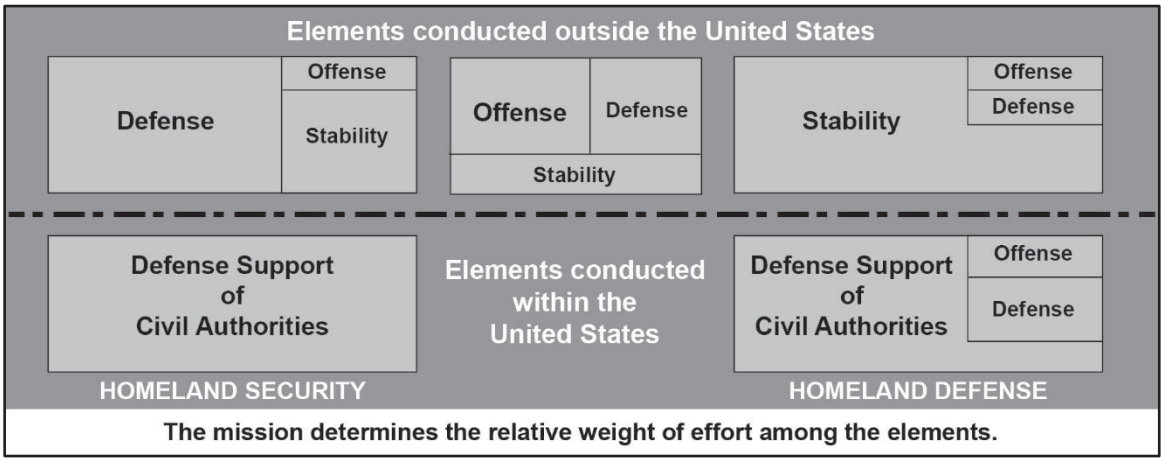


Figure 1-1. Decisive action

1-17. The operations that constitute decisive action are as follows:

- An *offensive operation* is an operation to defeat or destroy enemy forces and gain control of terrain, resources, and population centers (ADP 3-0). These types of operations impose the commander's will on the enemy. Even when conducting defensive operations, seizing and retaining the initiative requires executing offensive operations at some point (see chapter 3).
- *A defensive operation* is an operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations (ADP 3-0). Successful defenses are aggressive, and commanders use all available means to disrupt enemy forces (see chapter 4).
- A *stability operation* is an operation conducted outside the United States in coordination with other instruments of national power to establish or maintain a secure environment, provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief (ADP 3-0). Commanders are legally required to perform minimum-essential stability operations tasks when controlling a populated AO. These include security, food, water, shelter, and medical treatment. (See ADP 3-07 for a more detailed discussion on stability.)
- DSCA is support provided by U.S. Federal military forces, Department of Defense (DOD) civilians, DOD contract personnel, DOD component capabilities, and National Guard forces (when the Secretary of Defense, in coordination with the governors of the affected states, elects and requests to use those forces in Title 32, United States Code, status) in response to requests for assistance from civil authorities for domestic emergencies, law enforcement support, and other domestic activities, or from qualifying entities for special events. This typically happens only when the size and scope of events exceed the capabilities or capacities of domestic civilian agencies. DSCA actions are always subordinate to civilian authority control. An example of DSCA was the deployment of elements of the 82nd Airborne Division to New Orleans, Louisiana in 2005 following Hurricane Katrina. (See ADP 3-28 and JP 3-28 for more on DSCA.)

TENETS OF UNIFIED LAND OPERATIONS

1-18. The tenets of unified land operations describe the Army's approach to generating and applying combat power across the range of military operations during decisive action. An *operation* is a sequence of tactical actions with a common purpose and unifying theme (JP 1). A *tactical action* is a battle or engagement employing lethal and nonlethal actions designed for a specific purpose relative to the enemy, the terrain, friendly forces, or other entities. An engagement is a tactical conflict, usually between opposing lower echelons maneuver forces (JP 3-0). A *battle* consists of a set of related engagements that lasts longer and involves larger forces than an engagement (ADP 3-90). In general, the CAB and its parent BCT will fight engagements as part of larger battles. Figure 1-2 depicts the example relationship between engagements, battles, and operations.

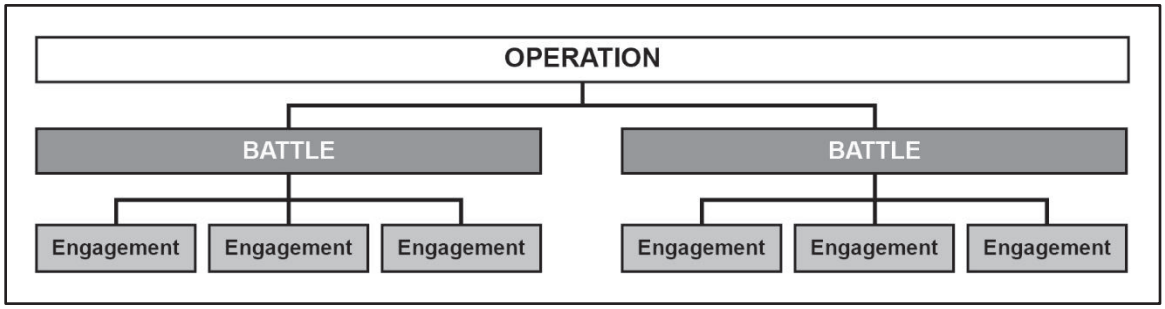


Figure 1-2. Operation-battle-engagement linkage

1-19. Operations can include an attack to seize a piece of terrain or destroy an enemy unit, the defense of a population, or the training of other militaries to assist security forces as part of building partner capacity. Army operations are characterized by four tenets: simultaneity, depth, synchronization, and flexibility.

SIMULTANEITY

1-20. *Simultaneity* is the execution of related and mutually supporting tasks at the same time across multiple locations and domains (ADP 3-0). The CAB will predominantly operate within the land domain, though it may be influenced by actions taken within the remaining domains by the joint force, allies, or the enemy. Within combat operations, the CAB is one of many elements across multiple locations and domains and so, is only a component of the simultaneous activities occurring within an operation. Simultaneity requires creating shared understanding and purpose through collaboration with all elements of the friendly force. The CAB commander must know how the battalion integrates within the greater operation so as to ensure its mission is executed at the designated time to maintain simultaneity. Execution of simultaneous operations contributes to presenting the enemy with multiple dilemmas, reducing their ability to concentrate combat power in any one particular location.

DEPTH

1-21. *Depth* is the extension of operations in time, space, or purpose to achieve definitive results (ADP 3-0). Army forces engage enemy forces throughout their depth, preventing the effective employment of reserves and disrupting command and control (C2), logistics, and other capabilities not in direct contact with friendly forces. The CAB itself has limited depth within its formation, relative to the brigade, division, or corps of which it would be a part of during combat operations. Therefore, the CAB itself only occupies a portion of the depth of its higher headquarters formation across time, space, or purpose. During planning, the staff must consider the arrangement of the CAB's organic companies and attachments in time and space to ensure that the correct combat power is where it needs to be to meet the CAB commander's intent and accomplish its mission. For example, during a combined arms breach, the location of the engineer capabilities used to breach an obstacle must be located in such a manner that they can quickly approach, identify, and reduce an obstacle with little to no impediment to the CAB's momentum through the breach itself once a lane or lanes are established.

SYNCHRONIZATION

1-22. *Synchronization* is the arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time (JP 2-0). Synchronization is not the same as simultaneity; it's the ability to execute multiple related and mutually supporting tasks in different locations at the same time, rather than the actual execution of those tasks. Executing combat operations, the CAB commander is responsible for ensuring that the battalion remains within its assigned time, space, or purpose to maintain synchronization with its higher echelon. Synchronization can also occur at the CAB level among the assigned or attached companies in order to enhance lethality, overseen by the CAB commander.

FLEXIBILITY

1-23. *Flexibility* is the employment of a versatile mix of capabilities, formations, and equipment for conducting operations (ADP 3-0). The initial plan generated by the CAB will often not last past first contact with the enemy. However, plans that are flexible help the CAB adapt quickly to changing circumstances in operations. Rigid plans may require a particular set of conditions to exist in order to be successful; if those conditions never arise, the plan will fail. The CAB commander adapts to battlefield conditions as they change and may employ forces in a variety of ways, whether through the use of the tank, IFV dismounted Infantry, unmanned aircraft system (UAS), mortars, attachments, or any combination. Additionally, the CAB provides flexibility for its higher headquarters based upon the capabilities it possesses.

COMBAT POWER

1-24. *Combat power* is the total means of destructive, constructive, and information capabilities that a military unit or formation can apply at a given time (ADP 3-0). The CAB generates combat power by converting potential into effective action. CAB commanders conceptualize their capabilities in terms of combat power. Combat power has eight elements:

- Leadership.
- Information.
- C2.
- Movement and maneuver.
- Intelligence.
- Fires.
- Sustainment.
- Protection.

1-25. CAB commanders apply leadership and information throughout, multiplying the effects of the other six elements of combat power: C2, movement and maneuver, intelligence, fires, sustainment, and protection, which are collectively known as warfighting functions. (See figure 1-3.)

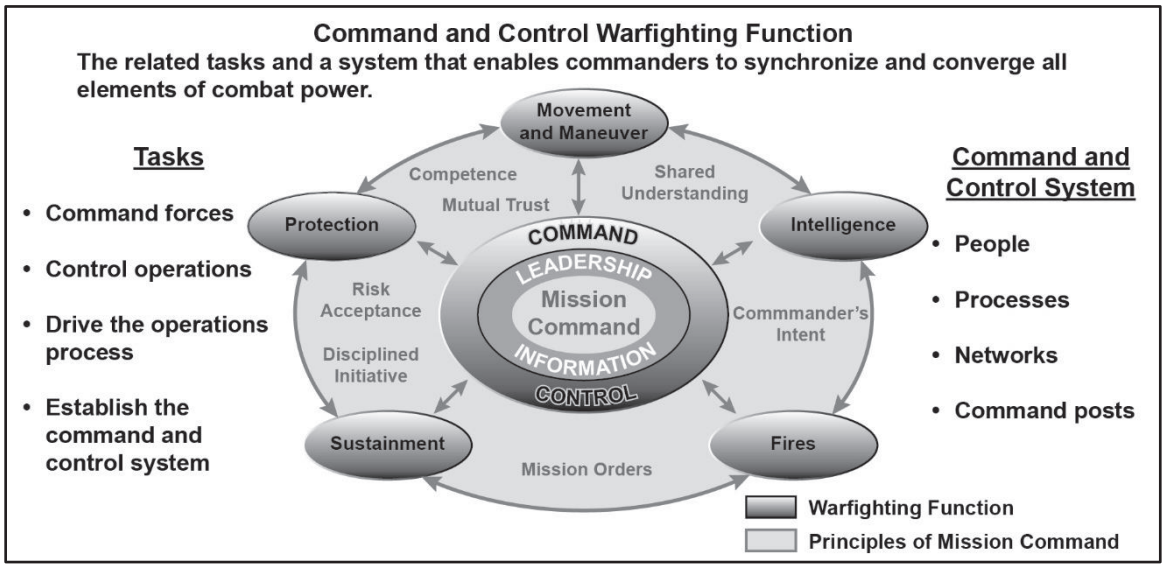


Figure 1-3. Combat power

LEADERSHIP

1-26. *Leadership* is the activity of influencing people by providing purpose, direction, and motivation to accomplish the mission and improve the organization (ADP 6-22). The leaders within the CAB, by virtue of assumed role or assigned responsibility, inspire and influence Soldiers to accomplish the mission. Leaders at all levels within the CAB, from tank commander to battalion commander, motivate Soldiers to pursue actions, focus thinking, and shape decisions for the greater good of the organization, while instilling in them the Warrior Ethos—the indomitable spirit and will to win.

INFORMATION

1-27. Information can be a powerful tool, shaping the perceptions of civilian populations and influencing the operational environment. In modern conflict, information has become nearly as important as lethal action in determining success or failure in operations at all levels. CAB commanders use information to understand, visualize, describe, and direct the warfighting functions. They depend on data and information to increase the effectiveness of the warfighting functions.

1-28. All parties in a conflict use information to convey their message to various audiences. These include enemy forces, adversaries, and neutral and friendly populations. Information is particularly critical in operations focused on stability operations tasks where the indigenous population and institutions are a major factor in success or failure. Even if combat operations have damaged or destroyed the ability to transfer information over traditional means (radio, television, or the internet), information can still travel through social networks within the population by word of mouth.

WARFIGHTING FUNCTIONS

1-29. A *warfighting function* is a group of tasks and systems united by a common purpose that commanders use to accomplish missions and training objectives (ADP 3-0). All warfighting functions possess scalable capabilities to mass lethal and nonlethal effects. No warfighting function is exclusively decisive, shaping, or sustaining, but may contain elements of more than one type of operation. Paragraphs 1-30 through 1-44 on pages 1-8 through 1-11 provide a brief summary of each of the warfighting functions.

Command and Control Warfighting Function

1-30. The *command and control warfighting function* is the related tasks and a system that enable commanders to synchronize and converge all elements of combat power (ADP 3-0). The primary purpose of the C2 warfighting function is to assist the CAB commander in integrating the other elements of combat power. (See chapter 2 for a more in-depth discussion on this warfighting function.)

Movement and Maneuver Warfighting Function

1-31. 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 (ADP 3-0). Direct fire and close combat are inherent in maneuver. Movement is necessary to disperse and displace the CAB as a whole or in part when maneuvering. Maneuver directly gains or exploits positions of relative advantage.

1-32. The CAB commander uses maneuver for massing effects to achieve surprise, shock, and momentum. Effective maneuver requires close coordination of fires and movement. The movement and maneuver warfighting function includes these tasks:

- Move.
- Maneuver.
- Employ direct fires.
- Occupy an area.
- Conduct mobility and countermobility.
- Conduct reconnaissance and surveillance.
- Employ battlefield obscuration.

Intelligence Warfighting Function

1-33. The *intelligence warfighting function* is the related tasks and systems that facilitate understanding the enemy, terrain, weather, civil considerations, and other significant aspects of the operational environment (ADP 3-0). Other significant aspects of an operational environment include threats, adversaries, and operational variables, which vary with the nature of operations.

1-34. The intelligence warfighting function supports information collection with primary information collection tasks and operations of reconnaissance, surveillance, security, and intelligence operations. The CAB has the capacity to conduct reconnaissance, security, and limited surveillance tasks. Intelligence operations primarily remain at the BCT level and above, though the CAB may receive products from these operations that assist in planning and execution of missions. Between the CAB commander, battalion operations staff officer (S-3), and battalion intelligence staff officer (S-2), the battalion develops the plans for these operations. The CAB scout platoon is not the only information collection element within the battalion; the sniper squad as well as the maneuver companies and small UAS are also capable of answering the battalion's or brigade's priority intelligence requirement (PIR). The intelligence warfighting function includes the following tasks:

1-35. Provide intelligence support to force generation (primarily at the BCT level).

- Provide support to situational understanding.
- Conduct information collection.
- Provide intelligence support to targeting and information operations.

Note. See ADP 2-0 and FM 2-0 more a more in-depth discussion of the intelligence warfighting function.

Fires Warfighting Function

1-36. The *fires warfighting function* is the related tasks and systems that create and converge effects in all domains against the adversary or enemy to enable operations across the range of military operations (ADP 3-0). The fires warfighting function tasks are—

- Execute fires across the five domains and in the information environment.
- Integrate Army, multinational, and joint fires.

1-37. In addition to lethal fires, the fires warfighting function also incorporates those necessary actions that must be conducted to create converging effects in all domains to meet the commander's objectives. The CAB, however, will operate primarily in the land domain and is therefore limited to interacting within all five domains. With regards to lethal indirect fires, the CAB possess four 120-mm mortar systems. In addition, elements of the BCT field artillery battalion, division fires brigade, or joint fires may provide general or direct support. The battalion fire support officer (FSO), S-3, air liaison officer (ALO), and mortar platoon leader all work in conjunction with one another to plan, prepare, and execute fires within the CAB.

1-38. The fires warfighting function does not completely encompass, nor is it completely encompassed by, any particular branch or function. Many of the capabilities that contribute to fires also contribute to other warfighting functions, often simultaneously. An example is an aviation unit may simultaneously execute missions that contribute to the movement and maneuver, fires, intelligence, sustainment, protection, and C2 warfighting functions. Additionally, air defense artillery (ADA) units conduct air and missile defense (AMD) operations in support of fires and protection warfighting functions.

Note. See ADP 3-19 for a more in-depth discussion of the fires warfighting function.

Sustainment Warfighting Function

1-39. 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 (ADP 3-0). The endurance of the CAB is a function of successfully executing sustainment and determining the depth and duration of the CAB's operations. Based on CAB staff planning with the forward support company (FSC) it provides field maintenance and supply support to allow the CAB to maintain its ability to close with and destroy the enemy. Sustainment is essential to retaining the initiative and exploiting opportunities to out maneuver the enemy, providing the support necessary to conduct and continue operations until mission accomplishment. The sustainment warfighting function includes these tasks:

- Logistics.
- Finance and comptroller operations.
- Personnel services.
- Health service support (HSS).

Logistics

1-40. *Logistics* is planning and executing the movement and support of forces. It includes those aspects of military operations that deal with: design and development, acquisition, storage, movement, distribution, maintenance, evacuation and disposition of materiel; acquisition or construction, maintenance, operation, and disposition of facilities; and acquisition or furnishing of services (ADP 4-0). Logistics involves military art and science. Knowing when and how to accept risk, prioritizing among competing requirements, and balancing limited resources all require military art. The FSC commander, CAB logistics staff officer (S-4), and battalion executive officer (XO) work in conjunction with one another to plan, prepare, and execute logistics within the battalion. Logistics within the CAB include—

- Maintenance.
- Transportation.
- Supply.
- Field services.

- Distribution.
- Contract support.

Finance and Comptroller Operations

1-41. Finance and comptroller leverage fiscal policy and economic power across the range of military operations. Finance and comptroller encompass finance operations and resource management. (See FM 1-06 for additional details.)

Personnel Services

1-42. *Personnel services* are sustainment functions that man and fund the force, maintain Soldier and Family readiness, promote the moral and ethical values of the nation, and enable the fighting qualities of the Army (ADP 4-0). Personnel services complement logistics by planning for and coordinating efforts that provide and sustain personnel. Personnel services within the CAB include—

- Human resources (HR) support (brigade personnel staff officer [S-1] and staff section).
- Legal support (battalion paralegal assigned to the S-1 staff section).
- Religious support (chaplain and religious affairs specialist).

Health Service Support

1-43. The HSS mission improves, conserves, and restores the mental and physical well-being of Soldiers and, as directed, other personnel. It includes casualty care, medical evacuation (MEDEVAC), and medical logistics. Unit-level care provided by the CAB encompasses—

- Immediate lifesaving measures.
- Tactical combat casualty care (TCCC).
- Organic medical treatment provided by designated combat medics or treatment squads.
- Disease and nonbattle injury prevention.
- Combat and operational stress prevention measures.
- Patient location and acquisition (collection).

Protection Warfighting Function

1-44. 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 (ADP 3-0). Preserving the force includes protecting personnel (combatants and noncombatants) and physical capabilities of the United States, unified action partners, and HNs. The protection warfighting function enables the CAB commander to maintain the battalion's integrity and combat power. Protection determines the degree to which potential threats can disrupt operations in order to counter or mitigate those threats before they can act. Protection a continuing not linear activity planning, preparing, executing and assessing protection is a continuous and enduring activity; it integrates all protection capabilities to safeguard bases, secure routes, and protect forces. Effective physical security measures, like any defensive measures, overlap and deploy in-depth. Protection capabilities and resources can be managed and allocated using a Protection Prioritization List (see ADP 3-37). Critical Asset List and Defended Asset List can manage and allocate resources needed to defend against AMD threats.

1-45. The protection warfighting function within the CAB is a composite effort by the S-2, S-3, medical officer, chemical, biological, radiological, and nuclear (CBRN), and task force (TF) engineer. The CAB commander and staff synchronize, integrate, and organize protection capabilities and resources to preserve combat power and identify and prevent or mitigate the effects of threats and hazards. Protection is achieved through the primary protection task:

- Conduct survivability operations.
- Provide force health protection (FHP).
- Conduct CBRN operations.
- Provide explosive ordnance disposal (EOD) support.

- Coordinate AMD (passive defense).
- Conduct personnel recovery.
- Conduct detention operations (temporarily).
- Conduct risk management.
- Implement physical security procedures.
- Apply antiterrorism measures.
- Conduct police operations.
- Conduct population and resource control.
- Conduct area and local security.
- Perform cyberspace security and defense.
- Conduct electromagnetic protection.
- Implement operations security (OPSEC).

Note. See ADP 3-37 for a more in-depth discussion of the protection warfighting function. See ATP 3-13.3 for more information on OPSEC.

ARMY OPERATIONAL FRAMEWORK

1-46. CAB commanders have the responsibility to clearly articulate their concept of operations in time, space, purpose, and resources. An *operational framework* is a cognitive tool used to assist commanders and staffs in clearly visualizing and describing the application of combat power in time, space, purpose, and resources in the concept of operations (ADP 1-01).

1-47. The operational framework has four components. First, CAB commanders are assigned an AO for the conduct of operations by the higher headquarters. This AO exists for a designated period of time required to complete the assigned mission or missions. Second, the CAB commander can designate deep, close, and support areas to describe the physical arrangement of the CAB in time and space. The CAB will not designate its own consolidation area due to its limited capability to conduct independently all the necessary tasks. Third, within these areas, the CAB commander conducts decisive, shaping, and sustaining operations to articulate an operation in terms of purpose. Finally, the CAB commander designates the main and supporting efforts to designate the shifting prioritization of resources. (See figure 1-4.)

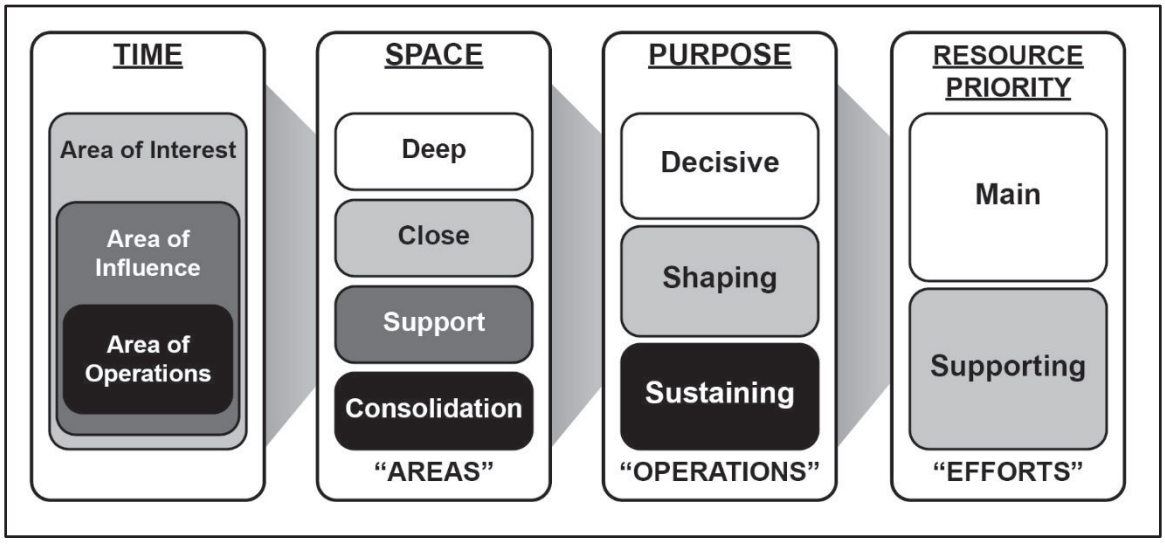


Figure 1-4. Army operational framework

AREA OF OPERATIONS

1-48. 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). AO should allow the CAB commander to employ organic, assigned, and supporting systems to the limits of their capabilities. In an urban environment, this can pose a greater challenge than sparsely populated open operational areas. However, the CAB commander and subordinates use initiative and adaptability to effectively synchronize all their systems in multiple environments. The CAB commander designates AO for subordinate units, using control measures to describe each AO and designing them to fit the situation, while taking advantage of capabilities. A *control measure* is a means of regulating forces or warfighting functions (ADP 6-0). Commanders specify the minimum control measures (such as boundaries) necessary to focus combat power, delineate responsibilities, assign geographic responsibility, and promote unified action.

1-49. Subordinate AO can be contiguous or noncontiguous. (See figure 1-5.) When friendly forces are contiguous, a boundary, such as a road or stream, separates them. When friendly forces operate in a noncontiguous AO, the concept of operation links the elements of the force, but the AO do not share a boundary. The unassigned area between noncontiguous AO remains the responsibility of the BCT or a higher headquarters to which the CAB may be attached.

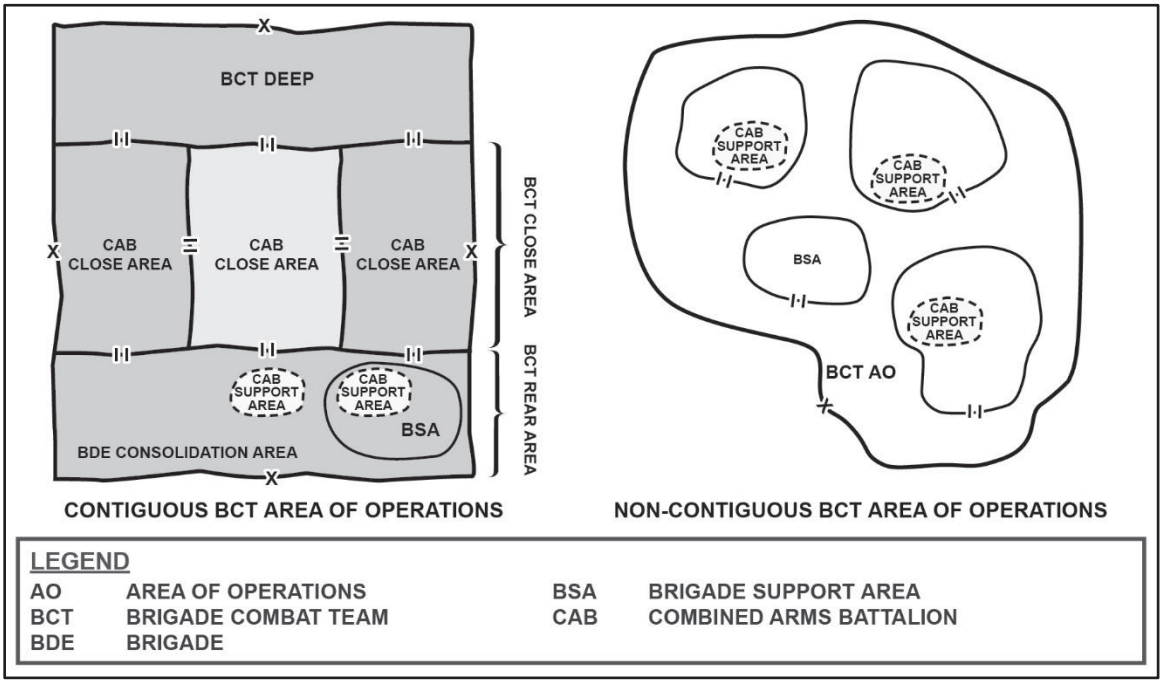


Figure 1-5. Contiguous versus noncontiguous areas

AREA OF INFLUENCE

1-50. The AO has an associated area of influence. 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). Ideally, the area of influence surrounds and includes the associated AO. In a contiguous environment, the area of influence for the CAB may be an AO for an adjacent unit within the parent brigade or adjacent brigades. As a result, the CAB must conduct adjacent unit coordination either through the parent brigade or directly with the adjacent brigade if granted the authority to do so from the BCT commander.

AREA OF INTEREST

1-51. 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 (JP 3-0). The CAB's AOI is a geographical representation of the area from which information and intelligence are required to execute successful tactical operations and to plan for future operations. It includes any threat forces or other characteristics of the CAB's operational environment that significantly influence accomplishment of the command's mission. This may include aspects of the air, cyberspace, and space domains as well. The AOI can vary or change over time. It is important to note that a higher commander does not assign the AOI. The commander and staff develop the AOI to help visualize the battlefield and their operational environment and determine information requirements (IR).

1-52. Figure 1-6 portrays one example of the interrelationship between the AO, area of influence, and AOI within a generally urban environment. Actions that the CAB takes within its AO can influence adjacent neighborhoods. Likewise, the actions of other units can have influence within the CAB's AO. The CAB's AOI includes the area of influence and focuses intelligence support, such as requests for information, for monitoring enemy and other activities that could affect the CAB's current and future operations.

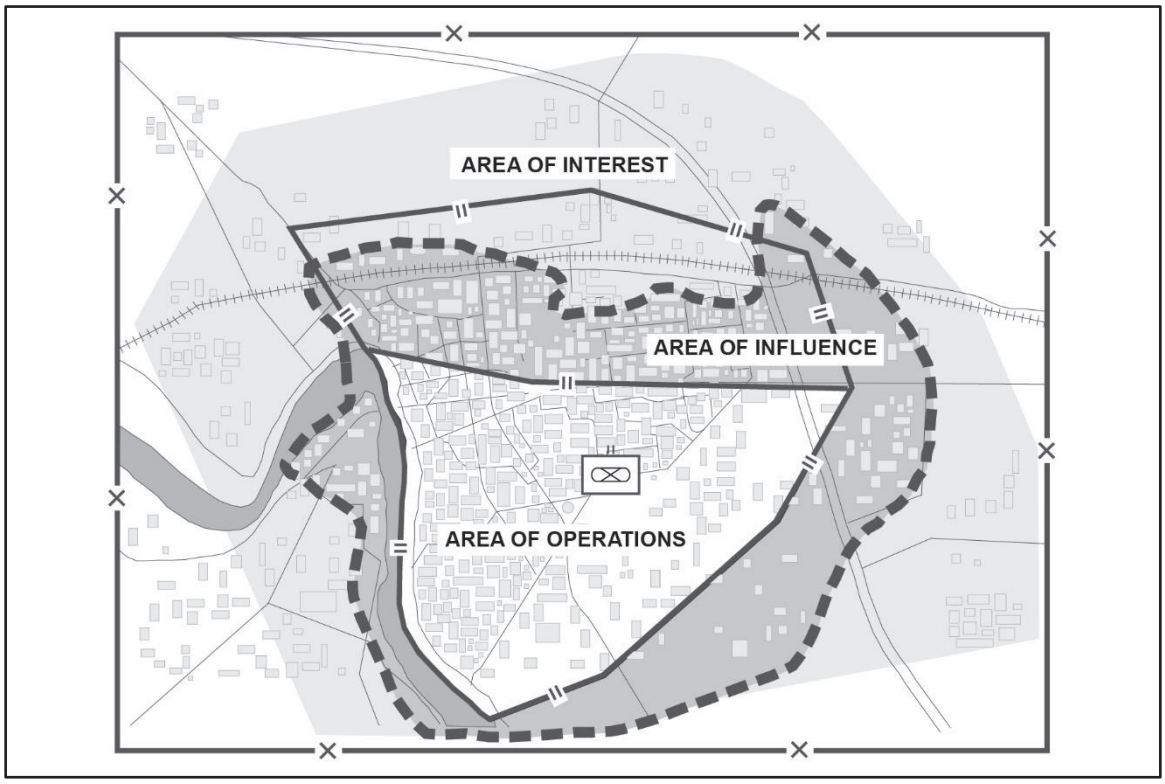


Figure 1-6. Area of operations, area of influence, and area of interest

DEEP, CLOSE, SUPPORT, AND CONSOLIDATION AREA FRAMEWORK

1-53. The deep-close-support-consolidation area framework allows the commander to designate placement of forces in areas of the battlefield. The CAB may have its own established areas or may be operating in a higher headquarters' designated area. The line between each of these areas may shift as conditions on the battlefield, success, or failure impacts the disposition of forces.

1-54. The *deep area* is where the commander sets conditions for future success in close combat (ADP 3-0). In a contiguous environment, when the CAB is operating as part of a BCT, it will not have its own deep area. In a noncontiguous environment, the CAB may have its own deep, close, and support area. Just as the areas

of influence and AOI surround the AO, so too can the deep area completely surround the close and support area.

1-55. The *close area* is the portion of the commander's area of operations where the majority of subordinate maneuver forces conduct close combat (ADP 3-0). Operations in the close area are within a subordinate commander's AO. The CAB plans to conduct decisive operations using maneuver and fires in the close area, positioning most of the maneuver force within it. In the close area, portions of the CAB may conduct the decisive operation while others conduct shaping operations to fix a specific enemy formation or defeat remnants of bypassed or defeated enemy forces. Planning for operations in the close area includes fire control measures, movement control measures, maneuver, and obstacle emplacement. Operations in the close area are inherently lethal because they often involve direct fire engagements with enemy forces seeking to mass direct, indirect, and aerial fires against friendly forces.

1-56. A *support area* is the portion of the commander's area of operations that is designated to facilitate the positioning, employment, and protection of base sustainment assets required to sustain, enable, and control operations (ADP 3-0). Commanders assign a support area as a subordinate AO to support functions. In a contiguous environment, the CAB's support area exists primarily within the BCT's support area as it works directly with the brigade support battalion (BSB) and within the brigade support area (BSA). It is in the BSA that the CAB's field trains command post (known as FTCP) is usually located. The combat trains command post (known as CTCP) may also be located within the CAB's support area or within the close area depending upon the mission variables. Within a noncontiguous environment, the CAB may have its own support area with limited, or intermittent, support from the BSA. (See FM 3-96 for more on the BCT and subordinate element activities within the support area.)

1-57. The *consolidation area* is the portion of the land commander's area of operations that may be designated to facilitate freedom of action, consolidate gains through decisive action, and set conditions to transition the area of operations to follow on forces or other legitimate authorities (ADP 3-0). Division or corps commanders establish a consolidation area, particularly in the offense as the friendly force gains territory, to exploit tactical success while enabling freedom of action for forces operating in the other areas.

1-58. If assigned to do so within the consolidation area, the CAB may conduct area security, stability operations tasks, and employ and clear fires with assistance from its higher headquarters. Additionally, the CAB may conduct a combination of decisive action to defeat remnants of defeated or bypassed forces and stabilize the area for transition to legitimate authority. Rather than do so on its own, the CAB would most likely operate in conjunction with other elements of its BCT in the division or corps consolidation area. However, the CAB will not have its own dedicated consolidation area. The CAB is not structured to support activities effectively in all four areas simultaneously.

DECISIVE, SHAPING, AND SUSTAINING OPERATIONS

1-59. Decisive, shaping, and sustaining operations lend themselves to a broad conceptual orientation. The *decisive operation* is the operation that directly accomplishes the mission (ADP 3-0). The decisive operation is the focal point around which the CAB commander and staff design an entire operation and not an actual unit itself. The decisive operation is designed to determine the outcome of a major operation, battle, or engagement. Multiple companies or platoons may be engaged in the same decisive operation. Decisive operations lead directly to the accomplishment of the commander's intent.

1-60. A *shaping operation* is an operation at any echelon that creates and preserves conditions for success of the decisive operation through effects on the enemy, other actors, and the terrain (ADP 3-0). Synchronizing the effects of maneuver, aircraft, artillery fires, and obscurants to delay or disrupt repositioning forces illustrates an example of shaping operations. Shaping operations may occur throughout the AO and involve any combination of forces and capabilities across multiple domains.

1-61. A *sustaining operation* is an operation at any echelon that enables the decisive operation or shaping operations by generating and maintaining combat power (ADP 3-0). Sustaining operations focus internally on friendly forces while decisive and shaping operations focus externally on the enemy or environment. Within the CAB, sustaining operations primarily include personnel and logistics support, and support area security if tasked to support the BSA. The battalion XO, S-4, and FSC commander are the ones primarily responsible for overseeing these operations.

MAIN AND SUPPORTING EFFORTS

1-62. The CAB commander designates main and supporting efforts to establish clear priorities of support and resources among subordinate companies. The *main effort* is a designated subordinate unit whose mission at a given point in time is most critical to overall mission success (ADP 3-0). It is usually weighted with the preponderance of combat power. The commander may shift the main effort one or more times during execution. Designating a main effort temporarily prioritizes resource allocation. When the CAB commander designates a company as the main effort, that element receives priority of support and resources to maximize combat power. The commander establishes clear priorities of support and shifts resources and priorities to the main effort as circumstances and the commander's intent require. The battalion commander may designate a company conducting a shaping operation as the main effort until the decisive operation commences. However, the company with primary responsibility for the decisive operation then becomes the main effort upon the execution of the decisive operation.

1-63. A *supporting effort* is a designated subordinate unit with a mission that supports the success of the main effort (ADP 3-0). The CAB commander resources supporting efforts with the minimum capabilities necessary to accomplish the mission. Forces often realize success of the main effort through success of supporting efforts.

SECTION II – ORGANIZATION

1-64. CABs can be detached and attached to another BCT headquarters as needed. The division commander can attach a CAB to another ABCT to add weight to the main effort. Another option is for the commander to attach a CAB to an Infantry BCT or Stryker BCT in order to provide those organizations additional firepower and protection. The CAB commander and staff must ensure the sustainment and communications requirements of mechanized forces are addressed when supporting another force.

1-65. While a CAB may be used to add additional firepower to other formations within its own ABCT and outside of it, the CAB itself may require augmentation. With the limited number of Infantrymen, specifically within the armor heavy CAB variant, the CAB may require attachments of Infantrymen from an Infantry BCT, Stryker BCT, or another CAB within the same ABCT in order to accomplish its assigned mission. Such missions may include a gap grossing, operating in urban environments, or conducting breaching operations, all of which have a heavy requirement for dismounted Infantrymen in order to increase the likelihood of success. A thorough wargame executed by the CAB commander and staff during the military decision-making process (MDMP) will help to identify when, where, and for how long the additional Infantrymen may be needed to support the CAB.

COMBINED ARMS BATTALION

1-66. Within the BCT, task-organization is flexible. A CAB can perform most shaping operations, hasty defenses, convoy security, and stability operations tasks without reinforcement. For example, when one CAB executes the BCT's decisive operation, the other CAB may provide a company to reinforce it. Company teams of task-organized Armor and mechanized Infantry platoons are formed based on mission variables.

1-67. There are two variations of the CAB task-organization. The first has two Armor companies and one mechanized Infantry company (see figure 1-7 on page 1-16). The second has two mechanized Infantry companies and one Armor company (see figure 1-8 on page 1-16). The FSC is attached to the CAB from the BSB and is in direct support of the CAB, providing sustainment to the battalion.

1-68. CABs are organized to fight and win offensive and defensive operations but are equally capable of executing stability and defense support of civil authority tasks as part of a joint TF. The CAB combines the efforts of its headquarters, Armor and mechanized Infantry companies to execute tactical missions as part of an ABCT operation. Amassing the combat power of these companies quickly while integrating and synchronizing the supporting and sustaining multipliers is the key to victory.

1-69. The CAB commander can organize companies as teams with a mix of Armor and Infantry units to accomplish the battalion's mission. The company team is an organization whose effectiveness increases through the collective effort of its subordinate elements, including tanks, IFVs, dismounted Infantry, and

support elements. These components have a broad array of capabilities; individually, however, they also have a number of vulnerabilities. Effective application of the company team as a combined arms force can capitalize on the strengths of the teams' elements while minimizing their respective limitations.

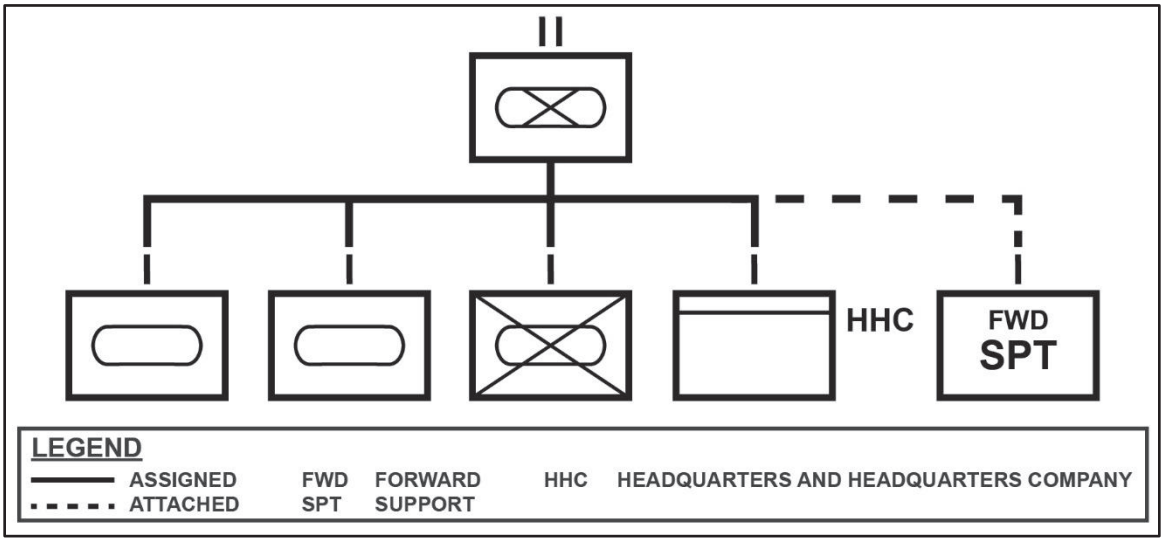


Figure 1-7. Armor combined arms battalion

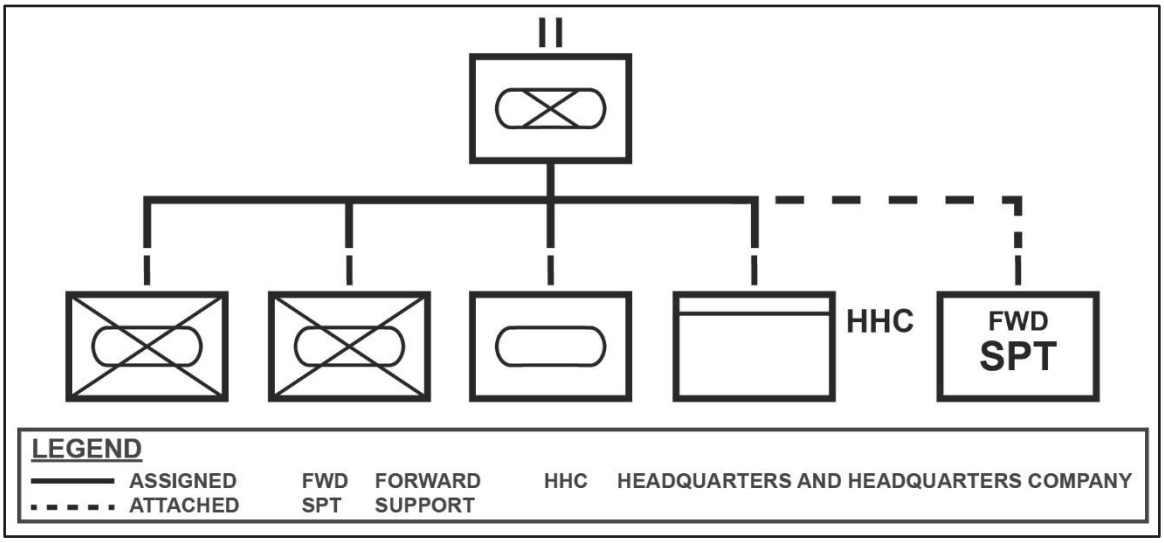


Figure 1-8. Mechanized Infantry combined arms battalion

MECHANIZED INFANTRY COMPANY

1-70. The mission of the mechanized Infantry company is to close with the enemy by means of maneuver, to destroy or capture the enemy, repel the enemy's assault by fire, and engage in close combat and counterattack. The company is equipped with an IFV. The IFV provides the company the ability to assault rapidly through small arms and indirect fires to deliver the Infantry squads before, on, or beyond an objective or critical point and continues the assault dismounted while being supported by the antiarmor capabilities of the IFV. Figure 1-9 illustrates the organization of a mechanized Infantry company.

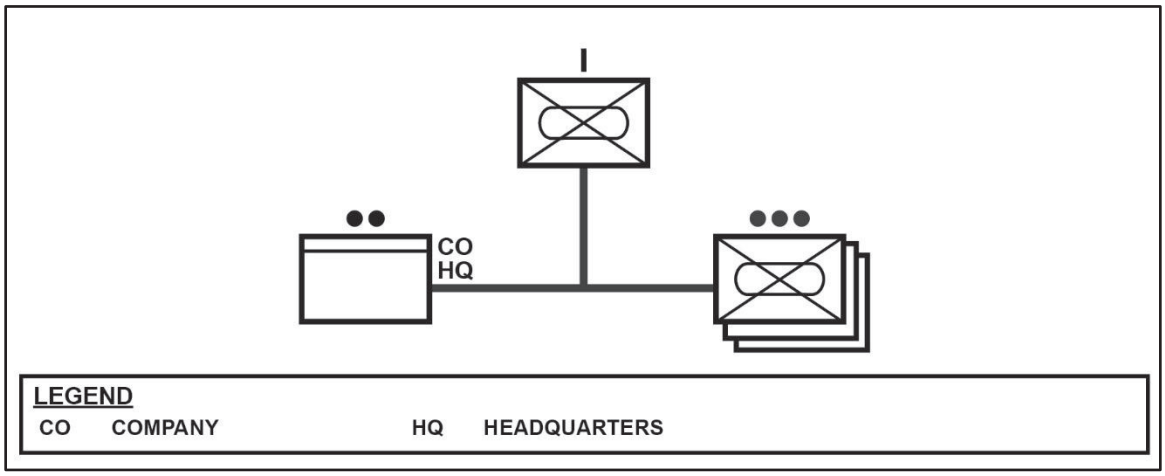


Figure 1-9. Mechanized Infantry company

1-71. The dismounted Infantry of the company can maneuver in all types of terrain, weather, and visibility conditions. They capitalizes on all forms of mobility, to include helicopters and tactical airlift for the dismounted elements. The inherent versatility of the Infantry also makes it well suited for employment against asymmetrical threats across decisive actions.

1-72. The IFV is an integral part of the combat power of the rifle platoon and the rifle company. The IFV equipped Infantry platoons fight as a team, with fully integrated vehicular and dismounted elements. The dismounts provide the CAB a mutually supporting force capable of offsetting the vulnerabilities of the CAB's mounted elements.

ARMOR COMPANY

1-73. The mission of the Armor company is to close with and destroy enemy forces using fire, maneuver, and shock effect, or to repel the enemy force assault by fire and counterattack. The company maneuvers in most types of terrain, weather, and visibility conditions. Without mobility support, the Abrams tank is less suited for use in mountains or severely restricted terrain, such as heavily wooded or swampy locations. It capitalizes on long-range, direct-fire combat with enemy mechanized or armored units in open terrain with speed and shock effect. Figure 1-10 illustrates the organization of an Armor company.

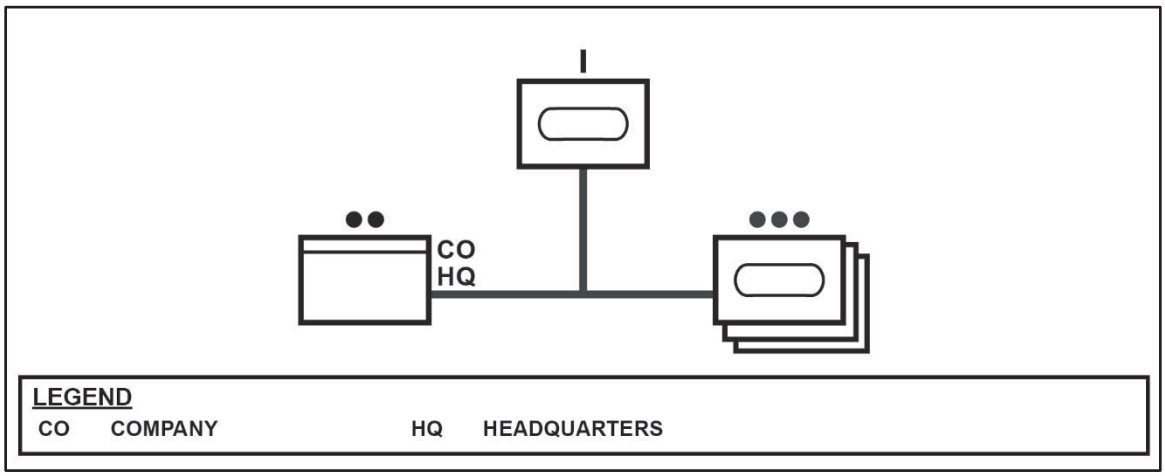


Figure 1-10. Armor company

HEADQUARTERS AND HEADQUARTERS COMPANY

1-74. The headquarters company includes the headquarters and headquarters company (HHC); the battalion's scout, heavy mortar, and medical platoons as well as the retransmission (known as RETRANS) team, and sniper squad. The headquarters company provides reconnaissance, sniper, mortar, communication, supply, administration, and medical support for the CAB. (See figure 1-11.) The responsibilities of the command and staff sections are discussed throughout this publication.

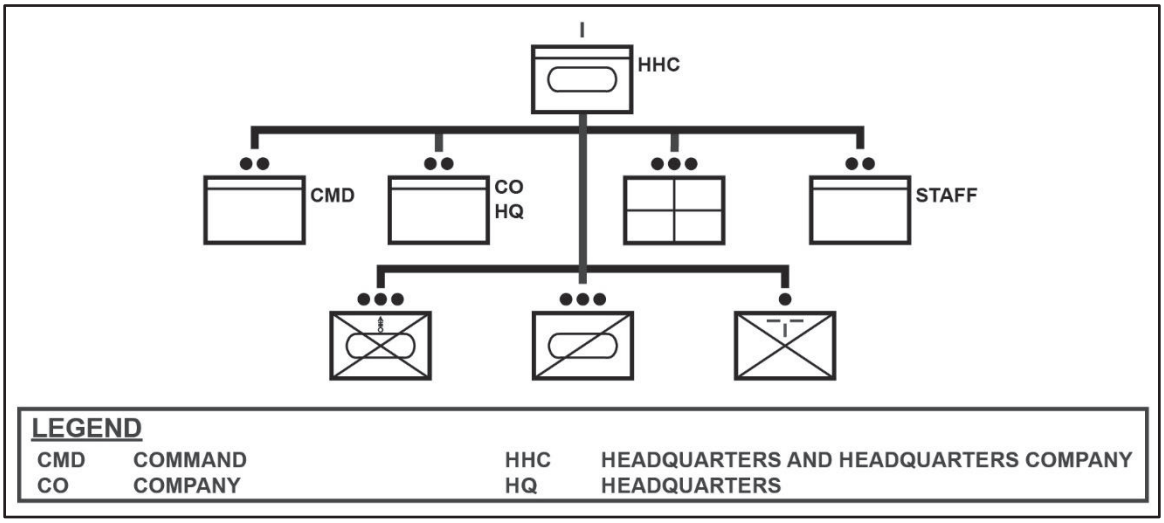


Figure 1-11. Headquarters and headquarters company

COMPANY HEADQUARTERS

1-75. The company headquarters section provides the immediate leadership, supply, and HR support to all HHC personnel, including the CAB's command group, coordinating, special and personal staff, and specialty platoons and squads. It includes the company commander, first sergeant (1SG), XO, and supporting supply section. In a tactical environment, the HHC headquarters section provides flexibility to the CAB commander as it can support alternate or additional command post (CP) operations.

1-76. The HHC commander has the responsibility of the CTCP and is assisted by the battalion S-4. When located in the CTCP, the HHC commander can adequately provide support to the HHC platoons and the battalion CPs. The HHC commander is responsible for coordinating sustainment support from the FSC. The HHC 1SG coordinates and supervises resupply of the scout and mortar platoons as well as the main CP, combat trains, and attached support units. Generally, the HHC 1SG operates out of the combat trains.

1-77. Depending upon the higher headquarters' organization, the HHC commander receives direction and guidance from the CAB commander, headquarters staff officers, and fellow company commanders. To be effective, HHC commanders must understand not only their range of authority and responsibility but also the relationship with, and the role and function of, every leader with whom they interact.

SCOUT PLATOON

1-78. The scout platoon conducts reconnaissance and security in support of the battalion mission. The platoon also assists in controlling battalion movements but rarely conducts independent platoon-level offensive, defensive, or retrograde tasks. The scout platoon helps the commander plan and execute operations by providing relevant operational information in a timely fashion during the planning, preparation, and execution of a mission. (See ATP 3-20.98 for more information.) (See figure 1-12.)

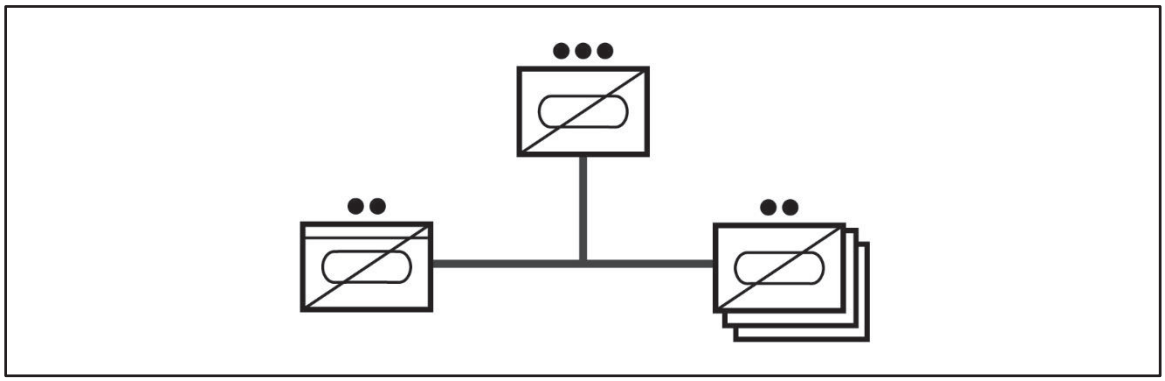


Figure 1-12. Scout platoon

1-79. Often the scout platoon receives augmentation to perform technical reconnaissance. This may include engineer reconnaissance teams to gather obstacle information, classify routes and bridges, or the brigade CBRN reconnaissance platoons to locate CBRN hazards, and sniper teams to perform extended surveillance missions.

1-80. The CAB commander is responsible for the employment of the scout platoon, as it is the commander's primary source of information collection. The scout platoon leader remains in contact with either the CAB commander or the main CP. This is necessary if the platoon leader is to keep the platoon informed of the next higher commander's most current friendly and threat situations. The scout platoon leader also ensures that information gained by the platoon is transmitted higher, to include personnel status and logistics reports to the HHC commander.

SNIPER SQUAD

1-81. Battalion snipers support maneuver by killing essential enemy leadership or command personnel, disabling lightly armored or thin-skinned vehicles, enhancing force protection, providing lethal and accurate fires in urban operations, protecting vehicle platforms from antiarmor fire, and performing counter-sniper operations. They also have the ability to conduct information collection within the CAB. The battalion sniper squad includes a squad leader and three similarly equipped three-person sniper teams. (See figure 1-13.) During security missions and stability operations tasks with extremely restrictive rules of engagement (ROE), sniper teams are used extensively in the counter-sniper role to provide force protection without creating unwarranted collateral damage.

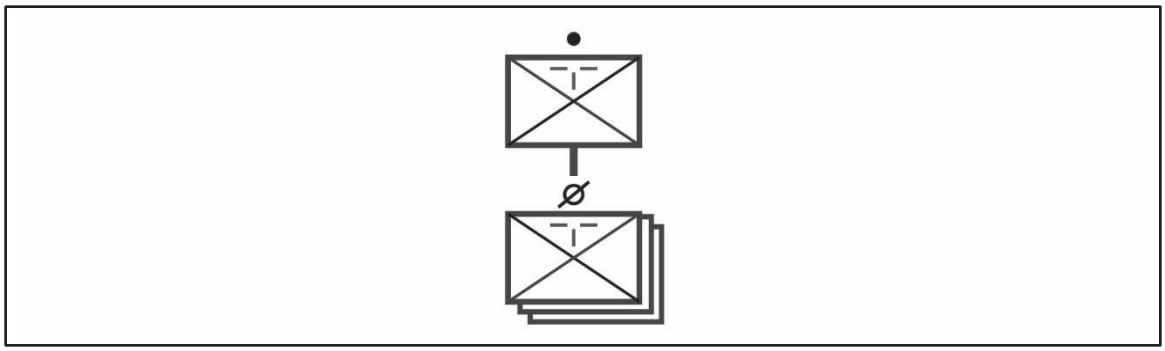


Figure 1-13. Sniper squad

1-82. The battalion sniper team is capable of providing the battalion with a full range of sniper support and is equipped with the M110 7.62-mm sniper rifle (providing antipersonnel fires out to 1,000 meters) and the .50-caliber M107 sniper rifle (providing antipersonnel and anti-equipment up to 1,800 meters). The squad also utilizes the M2010 enhanced sniper rifle capable of hitting personnel-size targets at ranges of

1,200 meters or further. This arsenal enables the sniper team to employ the sniper system that best supports the mission parameters. Additionally, the third member of the sniper team is equipped with an M203 or M320 rifle system to provide protection and security for the sniper and spotter as well as a means to break contact if the team is compromised.

1-83. The sniper teams directly support the battalion direct fire priorities as established by the commander and S-3. The modularity of the sniper teams enables the augmentation of a sniper team to a subordinate company for the execution of specific sniper missions. The support of the snipers is the responsibility of the HHC commander unless the snipers are attached to another commander. (See TC 3-22.10 for more information.)

MORTAR PLATOON

1-84. Mortars are suppressive, high-angle, indirect fire weapons that are organic to the battalion. They can be employed to neutralize or destroy area or point targets, screen large areas with obscurants for short periods of time without additional support, and provide illumination or coordinated high-explosive illumination. The mortar platoon's mission is to provide immediate and close indirect fire support for the CAB.

1-85. The mortar platoon includes four squads with one 120-mm mortar each and a fire direction center. (See figure 1-14.) The mortars can fire as a platoon or by sections under the direct control of the fire direction center. The M121 mortar is capable of firing 16 rounds per minute for the first minute with a sustained rate of fire of four rounds per minute after the first minute. It is capable of firing high explosives, illumination, and smoke rounds.

1-86. The platoon can deploy as one platoon or in two-gun sections. Mortars rarely are deployed as separate squads. If deployed as sections, one vehicle configures its Mortar Fire Control System as a fire direction center and controls the second vehicle's fires. This is possible even if the digital link to Advanced Field Artillery Tactical Data System (AFATDS) is lost.

1-87. The CAB mortar platoon provides the commander with the following:

- Supporting fire that is immediately at hand and close to the company and CAB fight. The mortar platoon is aware of the local situation and ready to respond quickly without lengthy coordination.
- Unique plunging fires that complement, but do not replace, the heavier fires of supporting field artillery, close air support (CAS), and naval gunfire.
- Weapons whose high rate of fire and lethality fill the gap between the field artillery fires' shift to deeper targets and the assault elements' closing onto the objective.
- A solid base of fire upon which to anchor maneuver against the critical point of enemy weakness.
- Suppressing the enemy inhibits their fire and movement while allowing friendly forces to gain a tactical mobility advantage. In the company- and battalion-level battle, mortar fire acts as a killer of enemy forces and as an enhancer of friendly mobility.

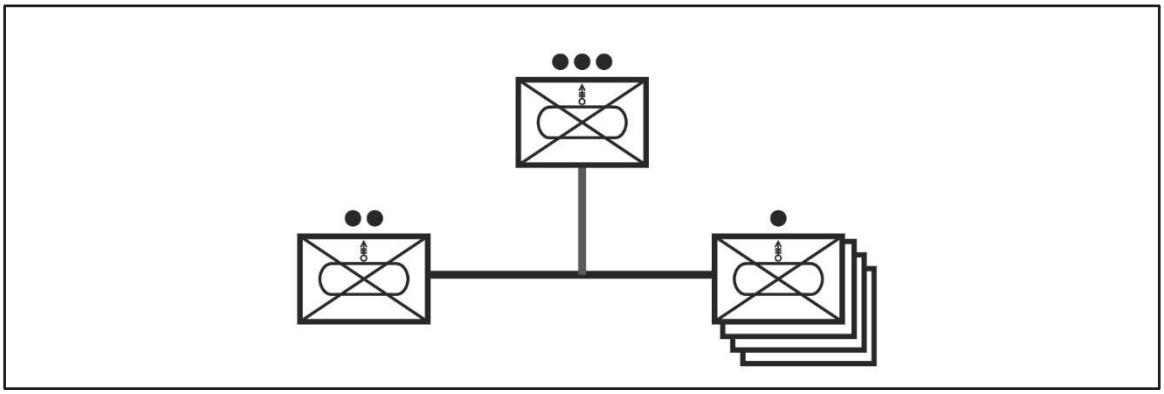


Figure 1-14. Mortar platoon

1-88. Ultimately, the CAB commander is responsible for the tactical employment of the mortar platoon. However, the S-3 generally has the authority to direct the platoon to accomplish specific missions or tasks within the framework of the commander's intent. The mortar platoon leader works closely with the FSO to ensure mortar fires are planned on appropriate targets and delivered at the correct times.

1-89. It is important to integrate mortars into battalion-level training, so that they are familiar with the systems and personnel with whom they must operate. One example is to have Soldiers use the AFATDS to send digital missions to the Mortar Fire Control System. Mortar platoon leaders must practice their role in the MDMP by coordinating with the CAB operations and fires cell. Within HHC, the scouts and mortar platoon can train on call for fire together, improving speed of response and overall lethality of the CAB.

1-90. The HHC commander is a vital link in the chain of command between the CAB commander and the mortar platoon leader. The HHC commander and the mortar platoon leader routinely exchange information; the HHC commander provides administrative and logistical support to the platoon, while the mortar platoon leader reports the status of assigned personnel and equipment to the company commander.

MINE ROLLER SECTION

1-91. The CAB has countermine capabilities with mine-clearing blades and rollers. The crews and equipment to transport, mount, and employ the countermine capability resides in at least three companies, as both mine plows and mine rollers must be physically paired with an M1 Abrams and operated by the tank crew, but the plows and rollers themselves reside organically in the headquarters company, and the ability to transport and mount them exists solely in the FSC (attached from the ABCT's BSB). The field maintenance team (FMT) attached to an Armor company or the recovery section of the maintenance platoon in the FSC can use their recovery vehicles to mount the mine plows and mine rollers. There are four mine plows and two mine rollers in an Armored CAB and two mine plows and one mine roller in a mechanized Infantry CAB.

MEDICAL PLATOON

1-92. The medical platoon provides Army Health System (AHS) support through its HSS and FHP missions in support of the CAB. The medical platoon is organized with a headquarters element, a treatment squad, an (one) ambulance squad with four ambulance teams with two ambulances each, and a combat medic section. (See figure 1-15.)

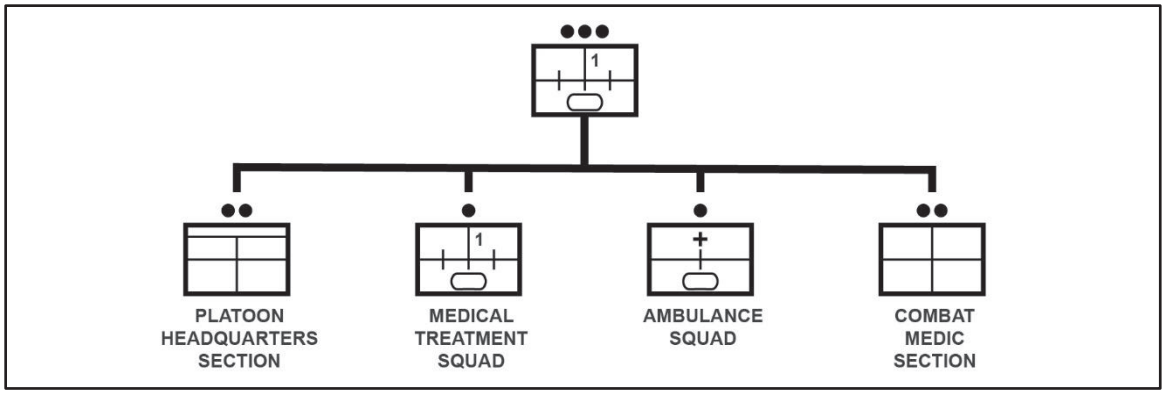


Figure 1-15. Medical platoon

Force Health Protection

1-93. FHP includes measures that promote, improve, or conserve the behavioral and physical well-being of Soldiers. These measures enable a healthy and fit force, prevent injury and illness, and protect the force from health hazards. The medical platoon's FHP responsibilities include—

- Maintaining dental readiness per AR 40-35.
- If military working dogs are used, ensures veterinary care is provided.

- Ensuring those demonstrating behavioral health signs and symptoms are referred to Role 2 or higher for care.
- Planning for and accomplishing predeployment and post deployment health assessments.
- Establishing and executing a medical surveillance program. (See AR 40-5, AR 40-66, and ATP 4-02.8 for more information.)
- Coordinating occupational environmental health surveillance programs.
- Establishing a combat and operational stress control program for the CAB.
- Assisting with the training of field sanitation teams.
- Conducting sanitation inspections of troop living areas, food service areas, waste disposal locations, and potable water distribution points or equipment.
- Refer to ATP 4-02.8 for more information regarding dental, veterinary, preventive medicine (PVNTMED), and medical laboratory services, and combat and operational stress control.

Health Service Support

1-94. HSS includes support and services performed, provided, and arranged by AHS forces to promote, improve, conserve, or restore the behavioral and physical well-being of Soldiers. The medical platoon's HSS responsibilities include—

- Providing Role 1 medical care. This includes TCCC for wounds, injuries, or illnesses; advanced trauma management; casualty collection; sick call services; class VIII resupply; and MEDEVAC from either point of injury or supported maneuver company to the battalion aid station (known as BAS) or the supporting treatment team.
- Establishing and operating the BAS where it can support CAB operations best.
- Providing training for combat lifesavers (CLSs). This includes recertifying CLS personnel every 12 months to ensure their skill proficiency remains per AR 350-1.
- Allocating combat medics to mechanized Infantry companies (one per platoon and a senior health care sergeant and ambulance team for each company) and armored units (one health care sergeant and one ambulance team per company).
- Placing ambulances forward with supported maneuver companies to reduce evacuation time and to augment maneuver company medical treatment, as required.
- Maintaining field medical records per AR 40-66.
- Providing patient decontamination and medical treatment.

Attachments

1-95. Attachments work both ways for the CAB; the CAB may itself be attached to another unit or it may receive attachments from within, or outside, the BCT. Within the ABCT, task-organization is flexible. For example, a CAB may detach a company or company team to reinforce the BSB within the BSA when the threat to the ABCT support area exceeds its self-defense capability. CABs can also be attached to another BCT headquarters as needed; however, unit esprit de corps and cohesion are powerful multipliers and should be considered when task-organizing the CAB.

1-96. The FSCs are organic to the BCT BSBs, but attached to the CAB and are critical to the success of the logistic concept of support. How the FSCs are deployed is critical to the success of the CAB, and ultimately the BCT. The FSC commander is then responsible for executing the sustainment plan per the CAB commander's guidance and providing logistical support to attachments following the command support relationship. The BSB provides technical oversight to the FSC. (See ATP 4-90 for more information.) Employment of the FSC is discussed further in chapter 6.

1-97. The BCT may provide, or assist with providing, the following capabilities to CABs:

- Information collection assets from the Cavalry squadron and the military intelligence (MI) company.
- Enhanced capacity for mobility, countermobility, and survivability (known as M/CM/S) from the brigade's engineer battalion.
- Human intelligence (HUMINT) support.

- Psychological operations forces.
- Civil affairs (CA) team from CA company for support.
- Cyber and electromagnetic warfare (EW) support.
- Liaison officers (LNOs) to assist with outside unit, or HN interaction.
- Military police and military working dog teams.
- Public affairs element to facilitate media operations.
- EOD team for unexploded ordnance.

SECTION III – ROLE OF THE COMBINED ARMS BATTALION

1-98. The CAB is the ABCT's primary maneuver force. CABs combine Armor and mechanized Infantry companies, Infantry squads, organic reconnaissance (scouts), snipers, 120-mm mortars, and a fires cell capable of employing supporting artillery and aviation support. If required, the CAB receives engineer support from the ABCT's brigade engineer battalion or other engineer augmentation received by the ABCT. The CAB CP functions and organization allows for the integration and synchronization of resources. (See chapter 2 for more information.)

MISSION

1-99. The mission of the CAB is to close with and destroy enemy forces using fire, maneuver, and shock effect, or to repel their assault by fire and counterattack. The armor and weapons of the CAB's tanks and IFV provides firepower, mobility, protection, and precision fires to offensive, defensive, or stability operations in varied operational environments. The CAB is effective against enemy mechanized and armored forces, as the CAB offers the best protection and firepower of any of the Army's maneuver battalions.

1-100. *Maneuver* is movement in conjunction with fires (ADP 3-0). It concentrates and disperses combat power to place and keep the enemy at a disadvantage. Effective maneuver keeps enemies off balance, making them confront new problems and new dangers faster than they can counter them. Maneuver encompasses more than just fire and movement. It includes the dynamic, flexible application of all elements of combat power.

1-101. ABCTs and their CABs are designed for expeditionary deployment. CABs usually deploy by sea, although components may be deployed via air to ensure rapid arrival to meet mission need. CAB equipment is prepositioned worldwide in unit sets and stored ashore and at sea.

1-102. CABs can expect to work with forces of other services to accomplish their assigned missions. Some examples of this may include the following:

- Fires from U.S. Air Force (USAF) systems create the conditions for decisive action and multiply the effects of maneuver.
- Army and U.S. Marine Corps (USMC) forces are tactically interoperable. A USMC unit may replace an Army unit in an operation and vice versa. Typical USMC units that might task-organize with a CAB include light-armored reconnaissance companies equipped with light-armored vehicles and Infantry units.
- Special operations forces (SOF) provide complementary capabilities for tactical operations. Commands frequently task-organize military information support operations and CA with CABs.

1-103. Although not under military command, nonmilitary agencies are present in every military operation. The CAB may need to synchronize its actions with interagency and humanitarian organizations, if present within the AO, to facilitate the indigenous population and institutional support of U.S. military efforts in their country. Interagency cooperation is not easy, especially when these organizations may have conflicting desired end states from each other or the CAB. It might require the CAB commander to dedicate liaison personnel and to share military resources to achieve overall success.

1-104. Multinational operation is a collective term that describes military actions conducted by forces of two or more nations. Maintaining a good rapport and integrating military transition teams in unit operations help facilitate interoperability and C2 with foreign units. The CAB must articulate the commander's intent and concept of operations clearly and simply to avoid confusion that could result from differences in doctrine

and terminology. The CAB commander and staff should plan to have longer planning sessions and more detailed rehearsals to develop a common understanding of the operations plan and control measures. As with interagency cooperation, the CAB commander should plan to provide and receive liaisons in a multinational environment. Liaisons can help reduce the friction that inevitably exists between the CPs of multiple nations, especially when planning and battle tracking. The CAB intelligence officer, or designated personnel, ensures that any foreign liaison(s) operating within the CAB CP have the proper clearances to do so or oversees the necessary accommodations to allow the foreign liaison(s) access into the CP.

CAPABILITIES

1-105. The CAB is optimized for high-tempo offensive as well as defensive operations against conventional and unconventional forces in mixed and open terrain. It is capable of screen missions, and most stability operations tasks, with the possible exception of stability operations tasks in mountainous or jungle environments.

1-106. When a CAB executes decisive actions, it usually is reinforced with combined arms enablers such as engineers, artillery, and aviation. Reinforcing lethal and suppressive effects from a variety of sources provides additional fire support. CABs can perform most shaping operations, hasty defenses, and convoy security without reinforcement. CABs apply their combat power to—

- Conduct sustained operations in all operational environments with proper augmentation and support.
- Conduct offensive operations.
- Conduct defensive operations.
- Accomplish rapid movement and limited penetrations.
- Exploit success and pursue a defeated enemy as part of a larger formation.
- Conduct guard operations when augmented with artillery and aviation support.
- Conduct operations with Infantry and Stryker maneuver forces.

1-107. CABs can perform many tasks associated with stability operations tasks and DSCA but will likely receive reinforcement from CA or other specialized units. CABs have the capability to—

- Protect the local populace from external and internal threats.
- Provide limited essential services (such as emergency medical care and rescue, food and water, and emergency shelter).
- Support internal security efforts (such as traffic checkpoints, contraband searches, and detainment of suspected criminals).
- Provide training to host-nation security forces (HNSF) and police if a security force assistance brigade is not operating within the CAB's AO.
- Coordinate with local officials to fund limited projects using a commander's emergency response program. (See ATP 1-06.2 for more information on this program.)

CONSIDERATIONS

1-108. The CAB requires significant amounts of strategic transportation to reach a theater of operations. There are limited sets of CAB equipment in Army pre-positioned stocks afloat and ashore. Once a CAB deploys, or draws its equipment and supplies, it requires time for reception, staging, onward movement, and integration. The CAB footprint is larger than a lighter force and has a high usage rate of consumable supplies, particularly classes III, V, and IX. Other considerations include—

- Mobility and firepower in urban areas, dense jungles, forests, very steep and rugged terrain, and significant water obstacles.
- Capability of local infrastructure (for example, roads, bridges, and tunnels) to support weights and size of the CAB's heavy vehicles.
- High dependence on radio and satellite communications.

- Obstacles, mines, and antitank weapons.
- Gap crossing capability (either fording or with engineer support).

1-109. If the CAB is attached to an organization that does not habitually consume the same quantities of classes III, V, and IX, it is the responsibility of the battalion XO, S-4, and FSC commander to coordinate through either the parent BCT or the gaining unit's higher headquarters for the necessary logistics and sustainment support. This support may involve the use of contracted civilian capabilities for transportation (for example, line haul) or refueling.

SECTION IV – DUTIES AND RESPONSIBILITIES

1-110. The following paragraphs describe the duties and responsibilities of key members of the CAB. The responsibilities described below are the basic responsibilities performed by staff members—they can be adjusted as required by the CAB commander.

BATTALION COMMANDER

1-111. CAB commanders have total responsibility for the CAB and its actions. They command all CAB units, whether organic, assigned, under operational control (OPCON), or attached. They plan operations with the assistance of their staff and subordinate leaders. They lead their CAB by providing purpose and direction to accomplish the mission and by their presence and direction during operations. They increase the effectiveness of the battalion by delegating to subordinates the authority to accomplish their missions; holding subordinates responsible for their actions; and fostering a climate of mutual trust, cooperation, and teamwork. They organize their forces based on the mission of the higher headquarters and a thorough understanding of METT-TC.

1-112. The CAB commander, assisted by the staff, uses the guiding principles of mission command to balance the art of command with the science of control. The seven principles of mission command are—

- Competence.
- Mutual trust.
- Shared understanding.
- Commander's intent.
- Mission orders.
- Disciplined initiative.
- Risk acceptance.

1-113. Command presence requires the commander to lead from a position that allows timely decisions based on an operational environment assessment and application of judgment. Depending upon the situation, the CAB commander may find it necessary to locate forward of the main or tactical command post (known as TAC). For example, the commander may position with the main effort to gain understanding, prioritize resources, influence others, and mitigate risk or with the support by fire (known as SBF) position to better control assault forces. To do this, the battalion commander must understand how the fundamental principles of mission command guide and help balance the art of command with the science of control.

1-114. The commander's personal staff group includes the command sergeant major (CSM), chaplain, legal advisor, and surgeon. The commander's personal staff group can be adjusted to accommodate evolving mission requirements to include, for example, a personal security detachment or an interpreter.

EXECUTIVE OFFICER

1-115. The battalion XO is the principal assistant to the CAB commander. As the second in command, the XO must be ready to assume command immediately if the commander becomes incapacitated. The XO transmits the commander's intent for the battalion. The XO's two primary responsibilities are to direct the operational efforts of the staff and to sustain battalion readiness.

1-116. The XO is the commander's chief of staff; directing, coordinating, supervising, training, and synchronizing the work of the staff, ensuring efficient and prompt staff actions. The CAB commander usually

delegates executive management authority to the XO for the coordinating and special staff. The commander usually retains responsibility for supervising the personal staff. Staff members inform the XO of any recommendations or information they pass directly to the commander and of instructions they receive directly from the commander.

1-117. The XO must understand the commander's intent and ensure the staff implements it, monitor the combat status of all subordinate units, and ensure that status is provided to the commander. The XO synchronizes all the elements of combat power, including the information element, into CAB operations; the goal is to implement the commander's intent and concept of operations. The duties of the XO include but are not limited to—

- Management of the commander's critical information requirements (CCIRs).
- Information management within the CAB.
- Synchronization of the staff during MDMP.
- Recommended organization of the staff.
- Development of the battalion battle rhythm to synchronize with the higher headquarters in garrison and in the field.
- Synchronize sustainment operations with the scheme of maneuver through supervision of the field and CTCPs.
- Determination of liaison requirements and supervision of LNOs.
- Supervision of work quality from, and crosstalk between, battalion staff officers and sections.
- Establishment and maintenance of battalion staff planning timelines.
- Integration of the information collection tasks and targeting plans with MDMP.
- Supervision of the main CP, its operations, and its positioning.
- Integration of attached units per the BCT or CAB plan.
- Manage investigations.

1-118. The battalion XO provides oversight of sustainment operations for the CAB commander. The XO's primary sustainment duties and responsibilities include—

- Ensuring CAB concept of support is synchronized with the scheme of maneuver.
- Providing oversight of the overall battalion maintenance status.
- Setting priorities for the CAB sustainment cell.
- Leading the CAB's sustainment rehearsal in cooperation with the battalion S-4.

STAFF ORGANIZATION

1-119. The CAB staff is organized into three separate categories; personal staff, coordinating staff, and special staff. Personal staff officers work under the immediate control of, and have direct access to, the CAB commander. Coordinating staff officers are the commander's principal assistants who advise, plan, and coordinate actions within their area of expertise or a warfighting function. Special staff is personnel or teams that are attached, or provided for a designated duration of time, to the CAB who provide planning or assistance in executing particular functions. (See figure 1-16.)

FUNCTIONAL CELLS

1-120. The CAB commanders use their professional knowledge, experience, and leadership style to organize the staff. The staff organization in garrison might not work in a deployed or combat environment. The commander, assisted by the XO, organizes the various staff elements into functional cells. The CAB staff has the ability to organize itself into five function cells:

- Intelligence (led by the S-2).
- Movement and maneuver (led by the S-3).
- Fires (led by the FSO).
- Protection (led by the CAB engineer).
- Sustainment (led by the S-4).

INTEGRATING CELL

1-121. In addition to functional cells, the CAB will have an integrating cell. Unlike the functional cells which are organized by warfighting function, integrating cells are organized by planning horizon; long-range, mid-range, and short-range planning and execution and are associated with the plans cell, future operations cell, and current operations integrating cell, respectively.

1-122. The CAB is organized for a current operations cell with representation from each staff sections as well as two additional planners within the S-3 section. This cell manages a combination of planning and operations. Though the commander may temporarily establish a plans cell or future operations cell, the CAB is not designed or resourced to operate more than a current operations cell.

STAFF RESPONSIBILITIES

1-123. During the preparation for and execution of operations, staff officers have two broad areas of responsibility. The first is to provide information, assistance, and recommendations to the commander. The second is to supervise the preparation for and execution of the plan within their functional areas.

1-124. Specific responsibilities include anticipating requirements, monitoring operations, taking action to support the plan, managing the information flow, making timely recommendations, conducting coordination, synchronizing operations, and maintaining continuity.

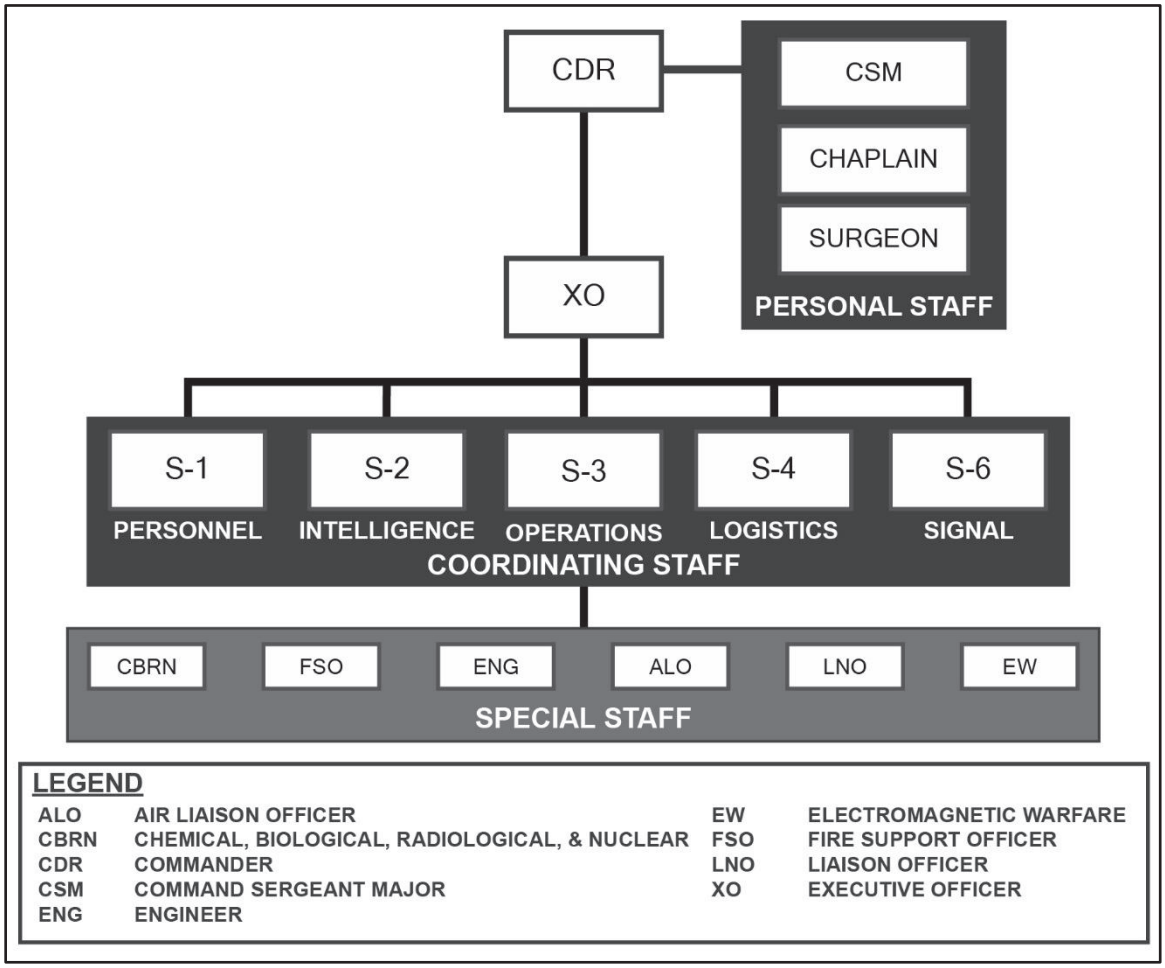


Figure 1-16. Battalion staff organization

PERSONAL STAFF OFFICERS

1-125. By law and regulation, personal staff officers have a unique relationship with the commander. The commander establishes guidelines or gives guidance on when a personal staff officer informs or coordinates with the XO or other staff members. Personal staff officers, such as the battalion chaplain or surgeon, also may work under the supervision of the XO.

COMMAND SERGEANT MAJOR

1-126. The CAB's CSM is the senior noncommissioned officer (NCO) in the battalion and is responsible for providing the commander with personal, professional, and technical advice on enlisted Soldier matters and the NCO corps as a whole. The CSM focuses on Soldier welfare and individual training and on how well the CAB carries out the commander's decisions and policies. The CSM can act as the commander's representative in supervising aspects vital to an operation as determined by the commander. For example, the CSM can help control movement through a breach in a critical obstacle or at a river crossing or help coordinate a passage of lines or quarter assembly areas (AAs).

1-127. The CSM plays a key role in the sustaining effort as the sustaining troubleshooter for the CAB. The CSM must be involved during the conduct of sustainment planning, rehearsals and operations (support rehearsals, paragraph 4 of the operation order [OPORD], logistics release points [known as LRPs], casualty collection points, maintenance collection points [known as MCPs], ambulance exchange points [AXPs], casualty evacuation [CASEVAC] rehearsals, support graphics, and so forth). The assignment of Soldiers in the CAB requires CSMs to step beyond their basic branch orientation and serve as an advocate, mentor, and role model for every Soldier in the battalion.

BATTALION UNIT MINISTRY TEAMS

1-128. Unit ministry team (UMT) consists of a chaplain and a religious affairs specialist. The chaplain serves as a personal staff officer with direct access to the commander. The CAB UMT provides religious support to all assigned or attached service members, family members, and authorized civilians. Provides religious, moral, and ethical advisement to the command as they impact both individuals and the organization's mission. Coordinates with higher, subordinate and adjacent UMTs and chaplain sections for area and denominational coverage requirements. See FM 1-05 and ATP 1-05 series for more information.

Note. Chaplains and religious affairs specialist by extension through the chaplain have privileged communication; they are not mandatory reporters. Privileged communication is essentially confidentiality.

SURGEON

1-129. The surgeon is a member of the commander's personal and special staff. The surgeon also serves as the medical advisor to the commander and the staff on all medical or medical-related issues. In this role, the battalion surgeon advises the battalion commander on the employment of the medical platoon and on the health of the battalion. The surgeon is also the supervising physician (medical officer or field surgeon) of the medical platoon's treatment squad. This officer is responsible for all AHS support provided by the platoon. This officer provides and oversees medical care to Soldiers, civilians, and enemy prisoners of war. The surgeon prepares a portion of Annex E (Protection) and Annex F (Sustainment) to the OPORD. (See ATP 4-02.3 for more details.) The surgeon receives assistance from a medical operations officer for administration, logistics, and planning of medical platoon operations; a physician's assistant for medical treatment; and a medical platoon sergeant for platoon operations. The surgeon is usually located in the BAS during combat operations. Surgeon responsibilities within the CAB include but are not limited to—

- Advising the commander on the health of the command.
- Advising the commander and the staff on AHS support operations and the medical threat.
- Coordinating, planning, providing, and oversight of health education and training, to include the training of CLSs, field sanitation teams, the establishment and training of nonmedical personnel

for patient decontamination teams, PVNTMED training to battalion personnel, Army warrior task training, continuing medical education, and clinical training of subordinate medical personnel.

- Planning and directing Role 1 AHS support for the battalion.
- Supervising and oversight of all medical treatment provided by platoon.
- Examining, diagnosing, treating, and prescribing courses of treatment for patients, to include disease and nonbattle injuries, TCCC, and trauma management.
- Coordinating MEDEVAC, including Army dedicated MEDEVAC platforms (air and ground).
- Supervising the battalion combat and operational stress control program to include training troop leaders in the preventive aspect of stress on Soldiers.
- In conjunction with the BSB medical company commander and BCT surgeon, ensuring that suspected biological and chemical warfare agent samples are sent to an approved laboratory for testing.
- Planning for and implementing PVNTMED operations, to include preventing disease and nonbattle injury.
- Requesting PVNTMED support from the brigade for PVNTMED requirements beyond the (battalion surgeon) capabilities.
- Supervising and preparing health-related reports and statistics.
- Advising on the effects of the medical threat on personnel, rations, and water.
- Advising how operations affect the public health of personnel and the indigenous populations.
- Supervising of HSS and FHP planning, maintenance, and training.
- Recommendations for aid station, casualty collection point, and AXP locations, and the evacuation routes to support them.
- Integrating the CAB HSS or FHP plan into the BCT plan.
- Monitoring the command PVNTMED program to include health assessment and medical surveillance.
- Identifying health threats and medical-related CCIRs.
- Ensuring that health threat and medical intelligence considerations are integrated into the MDMP.
- Advising commanders on FHP CBRN defensive actions, such as immunizations, use of chemoprophylaxis, pretreatments, and barrier creams.
- Monitoring occupational health surveillance in coordination with the PVNTMED team.
- Ensuring the field health records are maintained.

COORDINATING STAFF

1-130. The coordinating staff includes the S-1, S-2, S-3, S-4, and the battalion signal staff officer (S-6). Knowledge of the commander's intent guides specific decisions within the staff's authority. The staff operates to carry out the commander's intent. Usually, the CAB commander delegates authority to the staff to take final action on certain matters within command policy. Assignment of staff responsibility does not include authority over other staff officers or over any command element.

PERSONNEL STAFF OFFICER (S-1)

1-131. The S-1 is the coordinating staff officer for all matters concerning HR support (military and civilian). The S-1 provides technical direction to subordinate units in two core competency areas and subordinate functions. Although coordinate personnel support is no longer an HR core competency, command interest programs and retention operations are support functions that may fall under the purview of the battalion S-1. These support functions are command driven and often shared staff functions with the responsibility to execute dependent on the echelon and the commanders' intent. The S-1 also contributes to preparing a portion of Annex F (Sustainment) within the battalion OPORD. (See FM 1-0, FM 1-04, and ATP 1-0.1 for more information.) Those two core competency areas include:

- Man the force—
  - Personnel accountability and strength reporting (known as PASR).

- HR support to replacement operations.
- HR support to casualty operations.
- Personnel readiness management (known as PRM).
- Personnel information management.

- Provide HR services—
  - Postal operations.
  - Essential personnel services.
  - Army band operations.
  - Morale, welfare, and recreation operations.

1-132. The S-1 NCO provides technical and doctrinal advice to the S-1 and CAB commander. The S-1 NCO serves as shift NCO in charge within the CP and also executes personnel administrative and replacement operations to include Soldier recognition and promotion and reduction actions.

1-133. The S-1 section generally operates from the CTCP, though it may have personnel at the FTCP, if it is constituted. The S-1 coordinates the staff efforts of the battalion surgeon and is the staff point of contact for equal opportunity and inspector general activities. Additional responsibilities of the S-1 can also include—

- Military pay support.
- Legal support through the legal personnel in the brigade legal section.
- Liaison with the battalion Soldier and Family Readiness Group.
- Internal Army Records Information Management System compliance.

INTELLIGENCE STAFF OFFICER (S-2)

1-134. The S-2 is the principal intelligence advisor to the battalion commander. The S-2 section is responsible for providing timely, accurate, relevant, and predictive intelligence analysis and products in support of the commander, staff, and subordinate units. The S-2 supervises and coordinates collection, processing, production, and dissemination of intelligence in support of the mission. The S-2 section usually has representatives in the main CP and the TAC.

1-135. The S-2 is responsible for intelligence readiness, tasks, synchronization, and support. In addition, the S-2 plans and executes physical security programs. The duties of the S-2 include—

- Management of the intelligence process.
- Management of intelligence preparation of the battlefield (IPB), including integration of input from other staff sections.
- Situation development, to include updating the enemy or threat, terrain and weather, and civil considerations portions of the common operational picture (COP).
- Intelligence support to the targeting process, including participating in the targeting meetings, developing high-value targets (HVTs), and tracking high-payoff targets (HPTs).
- Integration of information operations considerations into the other intelligence tasks.
- Develop a primary, alternate, contingency, and emergency (known as PACE) plan to ensure the continuous flow of timely, relevant, accurate, and predictive intelligence in support of the commander.
- Synchronization of intelligence support with combat and information collection operations through close coordination with the battalion XO and S-3.
- Analysis of CCIRs. This includes PIRs, friendly force information requirements, and other IR to develop collection tasks and requests from higher and adjacent units.
- Synchronization of intelligence support with fire support through close coordination with the FSO and S-3.

1-136. The S-2 NCO provides technical and doctrinal advice to the S-2 and commander. The S-2 NCO also supervises and trains the S-2 personnel, executes the battalion's command security programs, attends targeting meetings, and assists the S-2 in product preparation.

OPERATIONS STAFF OFFICER (S-3)

1-137. The S-3 is the coordinating staff officer for all matters concerning tactical operations of the CAB. The S-3 provides technical guidance to the company commanders in the areas of training, plans, and operations. The S-3 section runs the main CP, under XO supervision. Usually, the S-3 is the senior staff member of the TAC, if and when the CAB commander employs one.

1-138. The S-3 section also manages execution of the main CP battle rhythm in conjunction with the XO, which includes orders production, battle tracking, operations updates and briefings, rehearsals, receipt of reports, and reports to higher headquarters. In addition, the operations section develops and synchronizes the information collection plan. Other duties of the S-3 include—

- Synchronizing the effects of CAB units following the commander's intent.
- Developing the information collection plan.
- Identifying training requirements, recommending allocation of training resources including class V, and preparing the commander's training guidance.
- Participating in the targeting process.
- Reviewing orders, plans, and standard operating procedures (SOPs) from subordinate companies.
- Planning unit movements, to include deployments, air assaults, and ground convoys.
- Managing Army airspace control and terrain in the CAB AO.
- Coordinating and integrating joint, interagency, and multinational capabilities into operations, if present.
- Planning for dislocated civilian operations and detainee operations (to include retained personnel, detained persons, civilian internees, and enemy prisoners of war). (See FM 3-63 for additional information on detainee operations.)
- Coordinating with the XO, S-6, and HHC commander on the location of CPs.
- Assistant S-3.

1-139. For operations that require detailed and highly synchronized planning, the S-3 usually assigns this responsibility to the assistant S-3. The assistant S-3 may also serve as the unit movement and air movement officer.

1-140. The assistant S-3 is responsible for creating, or overseeing the creation of, the products that come from the S-3 operations section such as OPORDs, warning orders (WARNORDs), fragmentary orders (FRAGORDs), synchronization and execution matrixes, and digital and analog operations overlays.

OPERATIONS SERGEANT MAJOR

1-141. The operations sergeant major supervises the staff on the control of the TAC and the main CP. During tactical operations, the operations sergeant major remains with the TAC until the main CP moves to a new location. Operations sergeant major supervision responsibilities include the following:

- Ensure proper accountability and maintenance of equipment and vehicles.
- Supervise precombat inspections and precombat checks.
- Deploy with the assault element during tactical displacements.
- Monitor and supervise the distribution of messages and operational overlays (analog or digital) one organizational level up and two levels down.
- Coordinate and brief displacement CP procedures including tear down, setup, and quartering party activities, and be responsible for the physical setup, arrangement, and breakdown of the main CP.
- Ensure accurate setup of the TAC and all supporting vehicles to approved configuration.
- Supervise control over the exterior and interior organization of the main CP to include personnel, vehicles, and tents.
- Validate identity of authorized visitors to the CP.
- Supervise the CP security plan and develop specific security programs such as threat awareness and OPSEC.
- Responsible for staff training.

- Assist the battle captain with rehearsals and executing battle drills.
- Give guidance and supervise the construction of the terrain board model during planning phases.
- Ensure all information within the CP (coming and going) is disseminated, updated, collaborated, and managed properly.
- Monitor situations and ensure CP maintains communications with attached, subordinate, adjacent units, and higher headquarters.
- Manage reports and battle tracking.
- Oversee the timely and accurate posting of graphics and overlays.

1-142. The S-3 NCO acts as battle NCO, providing technical and doctrinal advice to the S-3 and commander, prepares the CP for orders, drills, briefs, and rehearsals, executes CP security and movement, and can serve as shift NCO in charge for the CP.

MASTER GUNNERS

1-143. The IFV and tank master gunners are primarily responsible for certifying the crew evaluators. They assist the S-3 with training scenarios and forecast ammunition, ranges, and training aids. They also train range safety personnel. Battalion master gunners advise the commander of the tactical capabilities and limitations of all platform weapons systems against threat systems. They also:

- Track safety and maintenance messages that may impact weapon systems.
- Provide assistance for direct fire planning.
- Manage combat and training ammunition accounts.
- Develop and manage sustainment ranges.
- Develop surface danger area diagrams, composite surface danger zones and weapons danger zones.

LOGISTICS STAFF OFFICER (S-4)

1-144. The S-4 is the coordinating staff officer for sustainment operations and is located in the CTCP. The S-4 provides staff oversight to CAB units in the areas of supply, maintenance, transportation, and field services.

1-145. The S-4 is the CAB staff planner for the FSC commander, who executes sustainment operations for the CAB. The duties of the S-4 include—

- Developing logistics plans and support annexes to support CAB operations.
- Coordinating with the supporting FSC and BSB on current and future support requirements and capabilities.
- Coordinating for all classes of supply.
- Designating supply routes and locations of logistical elements (in coordination with the S-3 and FSC commander).
- Organizing logistics package (LOGPAC) operations.
- Monitoring and analyzing the equipment readiness status of all CAB units.
- Planning transportation to support special transportation requirements (such as CASEVAC).
- Recommending sustainment priorities and controlled supply rates to the commander.

1-146. The S-4 NCO provides technical advice to the S-4 and the commander. The NCO supervises personnel and activities within the S-4 section and as a shift NOCIC for the CTCP.

BATTALION MAINTENANCE OFFICER

1-147. The battalion maintenance officer (known as BMO) is responsible for the synchronization between the CAB's operations and its maintenance and logistics needs. It is essential that the BMO have a working knowledge of maintenance and logistics, as well as an understanding of maneuver doctrine. Duties of the BMO can include—

- Serving as the CAB commander's executive agent for maintenance quality control.

- Reporting directly to the CAB XO and directing the maintenance effort for the CAB.
- Establishing the CAB's maintenance priorities and directing the maintenance control officer's support operations.
- Maintaining close contact with the CAB XO and S-3 to remain current on the tactical situation.
- Determining the location of the MCP based on the elements of METT-TC.
- Maintaining the command maintenance program and CAB maintenance SOP.
- During MDMP, maintaining a running estimate and anticipating maintenance and vehicle dispatching requirements.
- Determining DA Form 5988-E (*Equipment Maintenance and Inspection Worksheet)* and parts flow in garrison and while in an operational environment.
- Supervising the requisition of class IX repair parts through the Global Combat Support System-Army (GCSS-Army).
- Supervising quality assurance or quality control procedures.
- Coordinating equipment recovery and evacuation operations.
- Along with the CAB XO, maintaining the service schedule.
- Supervising all motor pool operations to ensure quality of work, safety, and U.S. Environmental Protection Agency compliance.

1-148. The BMO and the MCO within the FSC have the potential to overlap duties. A clear understanding by the BMO and MCO of each other's role within the CAB will prevent duplicate efforts and unnecessary expenditure of energy.

SIGNAL STAFF OFFICER (S-6)

1-149. The S-6 is the principal staff officer for all matters concerning communications, spectrum management operations, and networks within the unit's AO. The S-6 is responsible for information management usage procedures and information systems to collect, process, store, display, and disseminate information. The S-6 provides technical oversight of CAB units in the areas of DOD information network operations, information dissemination, and information assurance. The S-6 section also provides RETRANS nodes. The responsibilities of the S-6 include—

- Assessing CAB communications and computer vulnerability to enemy and civilian actions.
- Recommending CAB network priorities and constraints needed to accommodate bandwidth limitations.
- Advising the S-3 on CP locations based on communications capabilities.
- Integrating the mission command information systems with the battalion network.
- Arranging for communications and information systems maintenance.
- Monitoring communications security (COMSEC).
- Maintaining of information systems and tactical local area network management, including passwords and information security.
- Integrating cyber defense tasks.

1-150. The S-6 NCO provides technical and operational advice to the S-6 and the commander. The NCO supervises personnel and activities within the S-6 section. The S-6 section establishes and operates the battalion digital, radio, satellite, and wire communications systems. It also provides RETRANS nodes for the CAB.

SPECIAL STAFF

1-151. The CAB staff includes several special staff sections that assist the commander in providing professional or technical oversight of elements within the CAB. The commander delegates each staff officer an appropriate planning and supervisory authority. Within a CAB, the special staff officers listed in the paragraphs that follow, generally operate within the operations (S-3) coordinating staff section.

Chemical, Biological, Radiological, and Nuclear Officer

1-152. The battalion CBRN officer operates in conjunction with the CBRN NCO and CBRN specialists. The CBRN specialist assists in the training and employment of unit teams for CBRN defense and decontamination tasks. The staff performs core CBRN staff functions, as applicable, with emphasis on the following key tasks:

- Advise the commander on all CBRN threats and hazards.
- Implement CBRN protective measures.
- Provide CBRN warning and reporting.
- Prepare CBRN plans and orders.
- Plan contamination mitigation strategy.
- Train and mentor company-level CBRN Soldiers.

Fire Support Officer

1-153. The FSO serves as the special staff officer for fires and integrates fires into the scheme of maneuver for the CAB commander. The FSO is assigned to the field artillery battalion within the BCT but attached to the CAB. The FSO leads the targeting process and fire support planning for the delivery of fires to include preparation fires, harassing fires, interdiction fires, suppressive fires, and destruction fires as well as the generation of nonlethal effects, such as those generated by information operations. The FSO leads the fire support cell (when established) and prepares Annex D (Fires) of the OPORD. The FSO also coordinates with the EW NCO and the ALO. The CAB S-3 coordinates this position. (See ADP 3-19 for additional information.)

Engineer

1-154. The engineer is responsible for the integration of M/CM/S within the CAB, advising the commander and staff on aspects of engineer-related planning, coordination, and support of operations. The assigned engineer is the TF engineer. The TF engineer facilitates all necessary reachback for engineer expertise and advises the commander on necessary engineer and EOD augmentation to support specific CAB missions. Responsibilities include—

- Recommending essential tasks for M/CM/S tasks to the commander.
- Coordinating, tracking, and reporting engineer M/CM/S efforts.
- Participating in targeting meetings.
- Coordinating for general engineering missions (such as construction) in the battalion AO.
- Integrating environmental considerations into the operational plan.
- Coordinating for geospatial engineering products and support through the brigade engineer.

Air Liaison Officer

1-155. The battalion ALO is usually a highly experienced enlisted USAF joint terminal attack controller (JTAC) responsible for coordinating and controlling all CAS and employment of USAF assets in support of the CAB. The ALO is responsible for coordinating aerospace assets and operations which consist of horizontal and vertical CAS, air interdiction, air reconnaissance, airlift, and joint suppression of enemy air defenses (SEAD). The ALO supports the fire support cell (when established) and assists in preparing Annex D (Fires) of the OPORD. (See JP 3-09.3, FM 3-52, and ATP 3-52.1 for additional information.)

Liaison Officer

1-156. The LNO is the commander's representative to the brigade headquarters or agency to which it is sent. The LNO promotes coordination, synchronization, and cooperation between the CAB and brigade headquarters, interagency, coalition, HN, adjacent, or subordinate organizations as required. As subject matter experts from the CAB, the LNO is usually embedded in another organization to provide face-to-face coordination. As the LNO may be required to speak on behalf of the CAB, the CAB commander must ensure

that the LNO is one that properly represents not only the CAB, but also the U.S. Army as the LNO may support civilian organizations or allied military personnel.

Unit Public Affairs Representative

1-157. The unit public affairs representative is a command-designated officer from the command staff, who coordinates and functions as a liaison between the unit, the unit commander, and the designated supporting public affairs officer. The unit public affairs representatives serve closely with battalion commanders as lower-level subject matter experts on public affairs plans and policies on embedding the media, engaging the local media, and conducting media opportunities at the battalion level. (See AR 360-1 for more information.)

Additional Duty Safety Officer

1-158. The additional duty safety officer is responsible to the commander to ensure the implementation of the Army safety policy in all activities within the unit. This purpose of this additional duty is to reduce and keep to a minimum accidental manpower and monetary losses, thus providing more efficient use of resources and advancing effectiveness (see AR 385-10 for more information). To accomplish this, the additional duty safety officer must perform a wide variety of duties which include but not limited to—

- Developing and interpreting directives, policies, plans, and procedures on safety.
- Supervising and conducting safety surveys and inspections.
- Recommending appropriate action to remove or control hazards. Conduct follow-up inspections to ensure compliance.
- Maintaining adequate safety records and analyzing the unit's accidents.

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Chapter 2
Command and Control

Mission command is the Army's approach to C2. *Command and control* is the exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission (JP 1). C2 is fundamental to the art and science of warfare. No single activity in operations is more important than C2. Through C2, there are countless activities a military force must perform to gain purpose and direction. The goal of C2 is mission accomplishment.

SECTION I – COMMAND AND CONTROL WARFIGHTING FUNCTION

2-1. C2 is interrelated. Command resides with the CAB and company commanders, includes the authority and responsibility for effectively using available resources and for planning the employment of, organizing, directing, coordinating, and controlling military forces for the accomplishment of missions. It also includes responsibility for the health, welfare, morale, and discipline of assigned personnel.

2-2. Control is inherent in command and includes collecting, processing, displaying, storing, and disseminating relevant information. The CAB commander, supported by the staff, controls operations by receiving and communicating information to build shared understanding and to direct, coordinate, and synchronize the actions of the companies and platoons. The CAB commander's intent, orders, control measures, and SOPs all assist with the control of operations.

COMMAND AND CONTROL TASKS

2-3. The C2 warfighting function tasks focus on integrating the activities of the other elements of combat power to accomplish missions. Assisted by the staff, the CAB commander integrates numerous processes and activities within the headquarters and across the force through the C2 warfighting function. These tasks are—

- Command forces.
- Control operations.
- Drive the operations process.
- Establish the C2 systems.

COMMAND FORCES

2-4. *Command* is the authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment (JP 1). Command includes four elements: authority, responsibility, decision-making, and leadership. The CAB commander has the right to judge, act, or command. This authority is a combination of legal (the authority to enforce orders under the law) and personal (authority gained through the trust and confidence of subordinates because of the commander's actions). The CAB commander, though still accountable, may delegate authority to subordinates within the battalion in order to accomplish a given mission.

2-5. The CAB commander is legally and ethically accountable for the decisions they make or do not make, and for the actions, accomplishments, and failures of the subordinates. The CAB commander may delegate accountability, but still retains overall accountability for action of the commands. Command responsibilities include mission accomplishment; the health, welfare, morale, and discipline of Soldiers; and the use and maintenance of resources. In most cases, these responsibilities do not conflict; however, the responsibility for mission accomplishment sometimes conflicts with the responsibility for Soldiers or the stewardship of

resources. The importance of the mission informs commanders how much risk to Soldiers and equipment to accept. When there is conflict among the three, mission accomplishment comes before Soldiers, and Soldiers come before concerns for resources. The CAB commander looks to keep such conflicts to an absolute minimum.

2-6. Decision-making involves applying the art and science of war. The science of war pertains to those aspects of military operations which can be reduced to numbers, calculations, and tables. The art of war is associated more with the impact of leadership, complexity of operations, and uncertainty about the enemy. Successful commanders focus the most attention on those aspects belonging to the art of war. For the CAB commander, decision-making focuses on selecting a course of action (COA) that is most favorable to accomplishing the mission, whether that be deliberate with staff input, or by the commander alone. Critical to decision-making are the ability to make decisions without perfect information, knowing when enough information allows acceptable decisions, and the willingness to act on imperfect information. Striking the balance between acting now with imperfect information and acting later with better information is essential to the art of command.

2-7. Command presence, an aspect of leadership, is the influence that commanders have on those around the commander through personal demeanor, appearance, and conduct. Command presence can be established through such ways as being seen and heard, sharing risk and hardship, setting a good personal example, ensuring the commander's intent is widely understood, and through backbriefs and rehearsals.

2-8. Where the CAB commanders place themselves during an operation is an important decision. Too far forward, and the CAB commander may overtake the influence of the company commanders. Too far behind, and the CAB commander may lose the ability to conduct face-to-face coordination with subordinates or lose an appreciation for the human element of the situation. Other aspects such as the ability to see terrain and the effects of weather are also lost if the CAB commanders place themselves too far behind. Ultimately, commanders place themselves where they can best influence the decisive operation.

CONTROL OPERATIONS

2-9. *Control* is the regulation of forces and warfighting functions to accomplish the mission in accordance with the commander's intent (ADP 6-0). CAB commanders use control to direct and coordinate the actions of the companies, and if need be the platoons, in order to meet their intent. There are four elements of control: direction, feedback, information, and communication.

2-10. To direct means to communicate information related to a decision that initiates and governs actions of subordinate and supporting units. The CAB commander, through the C2 system, directs subordinates by establishing objectives, assigning tasks, and providing instruction on how forces will cooperate to accomplish the mission, primarily through plans and orders. Other key tools for providing direction include execution matrices, the decision support template (DST), and control measures.

2-11. Feedback is information the CAB commander receives during operations by comparing the actual situation with the plan and making changes or adjustments if needed. Feedback takes many forms, including information, knowledge, experience, and wisdom. Feedback comes from many sources: subordinates, higher headquarters, or adjacent forces. It arrives continuously: before, during, or after operations. Feedback helps the CAB commander and subordinates gain shared understanding. For feedback to be effective, it should identify any differences between the desired end state and the current situation. Effective commanders seek feedback from subordinates who are comfortable providing positive and negative reports. CAB commanders, who fail to build a team based on mutual trust and respect, may have poor command climates, making subordinates reluctant to share bad news. Therefore, they are likely to be poorly informed and operate from faulty assumptions that put operations at risk.

2-12. Operations produce large amounts of information though not all may be relevant to the CAB commander and staff. *Relevant information* is all information of importance to the commander and staff in the exercise of command and control (ADP 6-0). Relevant information provides the basis for creating and maintaining the COP, is the basis for achieving situational understanding, and facilitates the CAB commander's decision-making and ability to provide timely orders and guidance.

2-13. The CAB commander determines IR and set information priorities, avoiding requests for excessive amounts of information. Searching for information is time-consuming for staff and subordinates and may place unreasonable burdens upon them. Commanders describe the relevant information they need to inform decision-making by establishing CCIRs. A *commander's critical information requirement* is an information requirement identified by the commander as being critical to facilitating timely decision making (JP 3-0). CCIR falls into one of two categories:

- A *priority intelligence requirement* is an intelligence requirement that the commander and staff need to understand the threat or other aspects of the operational environment (JP 2-01).
- A *friendly force information requirement* is information the commander and staff need to understand the status of friendly force and supporting capabilities (JP 3-0).

2-14. The CAB commander also describes information to protect as essential elements of friendly information (EEFIs). An *essential element of friendly information* is a critical aspect of a friendly operation that, if known by a threat would subsequently compromise, lead to failure, or limit success of the operation and therefore should be protected from enemy detection (ADP 6-0). Although EEFIs are not CCIRs, they have the same priority. EEFIs establish elements of information to protect rather than ones to collect. Approval of an EEFI allows the staff to begin planning and implementing measures to protect friendly force information, such as military deception and OPSEC. An example of EEFI may be the location and composition of the breaching vehicles used to support a combined arms breach or the location of the main CP or TAC.

2-15. The CAB commanders and staff disseminate and share information among people, elements, and places. Communication is a means to exercise control over forces while linking information to decisions and decisions to action. The CAB commander does not take communication for granted. Instead, they choose appropriate times, places, and means to communicate using face-to-face conversations, written and verbal orders, estimates and plans, published memos, electronic mail, and other methods of communication appropriate for a particular situation. The CAB commander must assume that communications, specifically anything electronic or digital, will be disrupted during operations. The CAB commander's intent and orders should be written in a way that enables achieving objectives when communication is intermittent and situational awareness is problematic or even nonexistent. Mission orders and application of the mission command approach to C2 mitigates the need for continuous communication.

Drive the Operations Process

2-16. The *operations process* consists of the major command and control activities performed during operations: planning, preparing, executing, and continuously assessing the operation (ADP 5-0). These activities may be sequential or simultaneous, are rarely discrete, and often overlap. CAB commanders exercise the art of command by driving the operations process through their activities of understanding, visualizing, describing, directing, leading, and assessing operations. Throughout operations the CAB commander, their staff, company commanders, and unified action partners collaborate actively, sharing and questioning information, perceptions, and ideas to better understand situations and make decisions. The CAB commander encourages disciplined initiative through mission orders and a climate of mutual trust and shared understanding. Guided by experience, knowledge, education, intelligence, and intuition, CAB commanders apply leadership to translate decisions into action and synchronizes forces and capabilities in time, space, and purpose to accomplish missions.

Establish the Command and Control System

2-17. The CAB commander cannot exercise C2 alone. Even at the company level, commanders need support to exercise C2. At every echelon of command, each commander has a C2 system to provide that support.

2-18. The C2 system includes all the resources used to support C2 and enhances the CAB commander's ability to conduct operations. The CAB commander organizes a C2 system to—

- Support the commander's decision-making.
- Collect, create, and maintain relevant information and prepare products to support the commander's and leaders' understanding and visualization.
- Prepare and communicate directives.

- To provide these three overlapping functions, the CAB commander must effectively locate, design, and organize the four components of the C2 system.

COMMAND AND CONTROL SYSTEM

2-19. The *command and control system* is the arrangement of people, processes, networks, and command posts that enable commanders to conduct operations (ADP 6-0). The C2 system supports the CAB commander's decision-making, disseminates the commander's decisions to subordinates, and facilitates controlling forces. The equipment and procedures within the CAB exist to achieve this end.

PEOPLE

2-20. People are the fundamental core of not only the C2 system but also the CAB itself. The training and experience of the personnel within the CAB dictates how the processes, networks, and CPs will ultimately function. Trained personnel are essential to an effective C2 system. Technology cannot support C2 without people. The C2 system therefore applies to every Soldier within the CAB regardless of rank or position.

PROCESSES

2-21. The CAB commander establishes and uses processes and procedures to organize activities within the battalion headquarters. A process is a series of actions or steps taken to achieve a specific end, such as the MDMP or the operations process (plan, prepare, execute, and assess). Additionally, the CAB commander and staff use the following integrating processes to synchronize functions in the operations process:

- IPB (described in ATP 2-01.3).
- Information collection (described in FM 3-55).
- Targeting (described in ATP 3-60).
- Risk management (described in ATP 5-19).
- Knowledge management (described in ATP 6-01.1).

2-22. *Procedures* are standard, detailed steps that prescribe how to perform specific tasks (CJCSM 5120.01B). Procedures increase the efficiency and effectiveness of the C2 systems, such as SOPs. The uses of processes and procedures can increase the speed which decisions are made and actions are executed. The CAB commander, staff, and subordinate elements avoid applying processes and procedures blindly to the wrong tasks or the wrong situations, which can lead to ineffective, even counterproductive, performance.

NETWORK

2-23. Generally, a network is a grouping of things that are interconnected for a purpose. Networks enable the CAB commander to communicate information, control subordinate elements, and enable successful operations. Each network includes—

- End-user applications.
- Information services and data.
- Network transport and management.

2-24. The CAB commander determines the IR and focuses the staff on using networks to meet these requirements. These capabilities relieve staffs from handling routine data, and they enable extensive information sharing, collaborative planning, execution, and assessment that promote shared understanding.

COMMAND POST

2-25. CPs provide a physical location for the other three components of a C2 system (people, processes, and networks). CPs vary in size, complexity and focus. CPs may be comprised of vehicles, containers, tents, or located in buildings. The CAB commander systematically arranges platforms, operation centers, signal nodes, and support equipment in ways best suited for a particular operational environment.

SECTION II – THE COMMAND POST

2-26. In operations, effective C2 requires continuous close coordination, synchronization, and information sharing across the CAB staff sections, as well as reporting up to the higher headquarters. To promote this, commanders cross-functionally organize elements of staff sections in CPs. A *command post* is a unit headquarters where the commander and staff perform their activities (FM 6-0). The headquarters design, combined with robust communications, gives the CAB commander a flexible C2 structure. The function, type, and organization of a CP provide the CAB commander with many different ways to C2 the battalion.

COMMAND POST FUNCTIONS

2-27. All CPs perform six basic functions. The six functions assist the CAB commander in understanding, visualizing, leading, and assessing operations. Regardless of what type or its design, all CPs have the following functions in common:

- Conducting knowledge management and information management, which includes—
  - Developing and managing CAB battle rhythm.
  - Developing knowledge and information management plans with the S-6.
  - Managing information release through the S-2 and foreign disclosure officer when working with foreign partners.
- Building and maintaining situational understanding, which includes—
  - Receiving information including reports from subordinate units.
  - Analyzing information.
  - Generating, distributing, and sharing information and knowledge products to include reports required by higher headquarters.
  - Conducting battle tracking.
  - Conducting update and information briefings.
  - Developing and maintain running estimates by staff section or warfighting function.
- Controlling operations, which includes—
  - Coordinating, synchronizing, and integrating actions within delegated authority.
  - Integrating and synchronizing resources.
  - Monitoring and evaluating progress of operations.
  - Using clear, concise language and doctrinal terms and graphics when communicating.
- Assessing operations, which includes—
  - Comparing forecasted outcomes to actual events.
  - Continual monitoring and evaluating the operational environment.
- Coordinating with internal and external organizations, which includes—
  - Developing shared understanding.
  - Ensuring a thorough understanding of the commander's intent and concept of operations.
  - Informing an organization on issues so that they may adjust plans and actions as required.
  - Avoiding conflict and duplication of effort among units.
- Performing CP administration, which includes—
  - Establishing the CP.
  - Displacing the CP.
  - Providing security.
  - Maintaining continuity of operations.
  - Executing sleep plans.
  - Managing stress.

COMMAND POST ORGANIZATION

2-28. CAB CP facilities consist of the vehicles and locations from which the CAB commander, aided by staff, directs the battle and sustains the force. These facilities are organized with varying levels of staff participation at each echelon. Depending on METT-TC analysis, the CAB commander could choose to deploy a TAC, CTCP, or FTCP. Figure 2-1 shows CAB CP and distribution of staff officers during operations.

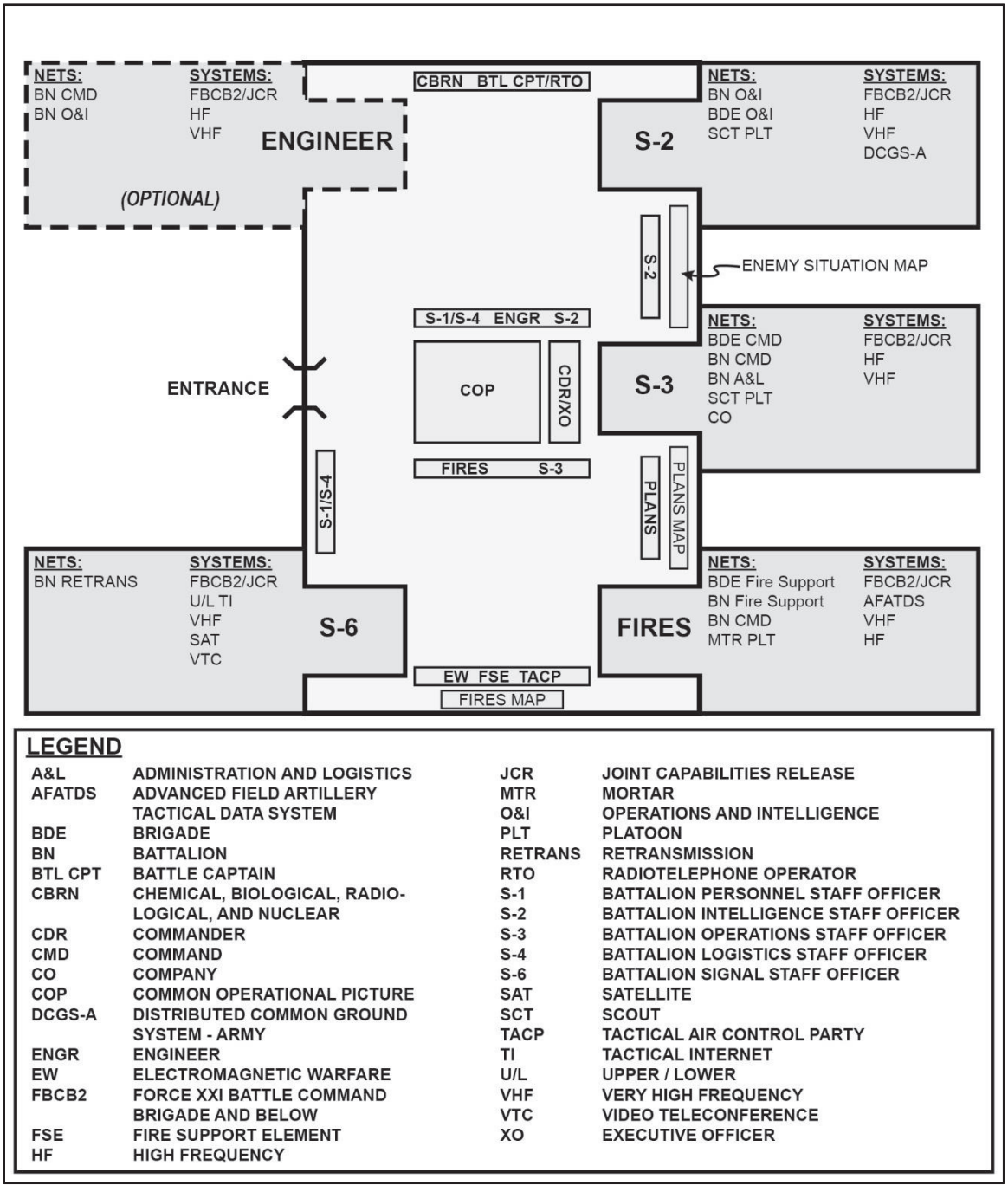


Figure 2-1. Combined arms battalion command post arrangement, example

COMMAND POST LAYOUT

2-29. The physical layout has a significant impact on the functionality of a CP. The layout contributes to how information is passed from one staff element to another efficiently. Position of information displays and user interface with communications systems are important considerations. The CAB commanders vet the layout or design of the CP during exercises and training events. CP layouts are tested, adjusted as required, and captured in the CAB's tactical or planning SOP. Commanders and staffs adjust from their standard CP designs established in their SOP based on METT-TC. CABs consider the following when designing the physical layout of a CP; staff integration and crosstalk, trafficability, COP, and lighting.

TYPES OF COMMAND POSTS

2-30. During decisive action, there are several types of CPs from which the commander and staff conduct C2 as well as other warfighting functions:

- Main CP.
- TAC.
- CTCP.
- FTCP.

MAIN COMMAND POST

2-31. A *main command post* is a facility containing the majority of the staff designed to control current operations, conduct detailed analysis, and plan future operations (FM 6-0). The main CP is the CAB commander's principal C2 facility. Usually, the CAB XO is responsible for supervising all staff activities and functions of the main CP.

2-32. The functions of the main CP include but are not limited to—

- Controlling operations.
- Receiving reports from subordinate units and preparing reports required by higher headquarters.
- Planning operations, including branches and sequels:
  - Branches are options built into the base plan that changes the concept of operations based on anticipated events, opportunities, or threats.
  - Sequels are the subsequent next operation or phase of the operation based on possible outcomes (success, stalemate, or defeat) of the current operation or phase.
- Integrating intelligence into current operations and plans.
- Synchronizing the targeting process.
- Planning and synchronizing sustaining operations.
- Assessing the overall progress of operations.

2-33. The primary considerations in positioning the main CP are survivability, communications, and accessibility. The CAB main CP must maintain continuous communications and coordination with subordinates and the BCT main CP. The main CP must physically configure itself in a manner that facilitates the best flow of information and crosstalk across all staff cells. Additionally, the main CP must be configured in a manner that supports rapid tear-down, movement, and rebuild if the CP must displace to another location. Rehearsing the displacement of the CP as well as designating specific tear-down and rebuild tasks to each Soldier, regardless of rank, within the CP will facilitate this process. During periods of CP transition, the CP staff must plan for extended periods of degraded operations. (See FM 6-0 for more information.)

Friendly Situational Information

2-34. The creation of friendly situational information is extensively automated, requiring minimal manipulation by CPs or platform operators. Each platform creates and transmits its own position location and receives the friendly locations (displayed as icons) of all the friendly elements in that platform's wide area network. This does not necessarily mean that all friendly units in the general vicinity of that platform are displayed however, as some elements may not be in that platform's network. For example, a combat vehicle

in a CAB may not have situational information on an allied nation's vehicle or CP. The situational information generated from individual digital C2 platforms is transmitted to CPs through the main CP server.

2-35. Commanders must recognize limitations in the creation of friendly situational information that results from vehicles or units that are not equipped with the latest digital technology. Commanders must enforce training and rehearsals with the systems they will operate with to include units, or attachments they must communicate and share information with.

2-36. The friendly maneuver tracking systems are emitters which will show friendly positions to the enemy as well as provide friendly-force tracking, so they are unlikely be to turned on 24 hours a day, 7 days a week, if at all on an active battlefield.

2-37. With any mission, there are risks to consider. The following are ways to overcome potential shortfalls:

- A digitally-equipped element tracks the location of specified dismounts and manually generates and maintains an associated friendly icon. As an example, the mechanized team XO can generate an icon for dismounted squads.
- The CAB main CP tracks analog units operating with the CAB and generates associated friendly icons.
- A digitally-equipped platform acts as a liaison or escort for analog units moving or operating in the CAB AO. The LNO must inform the CAB and higher elements of the association of the LNO icon with the analog unit.

Note. Use friendly situational information to deny fires and to aid in the clearance process, but do not use it as the sole source for clearance of fires. This applies to all digital information systems.

Enemy Situational Information

2-38. Creating a picture of the enemy is the most critical, and often difficult, aspect of creating the COP. The enemy situational information picture at BCT and CAB levels is the result of multiple inputs which are correlated by the S-2 section. Enemy situational information generation is partially automated, but it still requires a great deal of work and attention to detail.

2-39. Personnel at all echelons can generate the enemy situational information picture using the available digital C2 platform available. When an observer acquires an enemy element, the observer creates and transmits a spot report, which automatically generates an enemy icon that appears network-wide. Only those in the address group to whom the report was sent receive the text of the report, but all platforms in the network can see the icon. As the enemy moves or its strength changes, the observer must update this icon. If the observer must move, the observer ideally pass responsibility for the icon to another observer. If multiple observers see the same enemy element and create multiple reports, the CAB or ABCT S-2 (or some other element that has the capability) must eliminate the redundant icon(s).

2-40. At the ABCT level, the S-2 section and the supporting MI company receive intelligence feeds from higher, adjacent, and lower units. They enter enemy information from these sources into the appropriate database for the operation and send this information via the appropriate channels for routing to subordinate battalion S-2s. These feeds, along with radio and digital C2 platform reports, are the primary source of enemy situational information for the BCT's shaping operations and for providing battalions a picture of what is coming into their AO.

2-41. Usually, BCT and division levels conduct all-source analysis using multiple intelligence feeds. The ABCT S-2 should provide regular updates on the enemy situation to subordinates via the appropriate channels and methods available. CABs will develop the C2 picture based on the CAB commander's focus.

2-42. Army forces will have to fight for intelligence. To achieve situational understanding against peer threats, friendly forces must strive to identify or open windows of opportunity across domains. Staff integration is difficult but crucial; the staff must collaborate to overcome challenges and mitigate information collection capability and system limitations by developing an integrated information collection plan. Information must be analyzed as thoroughly and quickly as possible and the resulting timely, accurate, relevant, and predictive intelligence must be disseminated to consumers via the available channels and means.

TACTICAL COMMAND POST

2-43. The *tactical command post* is a facility containing a tailored portion of a unit headquarters designed to control portions of an operation for limited time (FM 6-0). The TAC aids in the control of maneuver and fires during the battle. Based on METT-TC analysis, the CAB commander determines the specific composition, nature, and tasks of the TAC or whether there is any need at all for one. Functions of the TAC include but are not limited to—

- Controlling decisive operations or specific shaping operations.
- Controlling a specific task within larger operations such as a gap crossing, a passage of lines, a relief in place, or air assault operations.
- Controlling the overall CAB's operations for a limited time when the main CP is displacing or otherwise not available.
- Performing short-range planning.
- Providing input to targeting and future operations planning.
- Providing a forward location for issuing orders and conducting rehearsals.
- Forming the headquarters of a TF with subordinate units task-organized under its control.

2-44. The S-3 usually leads the TAC with representatives from the S-2, S-3, and fires cell sections. The TAC is not a permanent organization and usually is prescribed by a tactical standard operating procedure (known as TACSOP) and modified as necessary. It is fully mobile, enabling the S-3 to assist the commander anywhere on the battlefield. Usually, the CAB employs the TAC only for the actual engagement or battle, with the main CP controlling the CAB during other periods. When properly staffed, the use of the TAC can degrade the ability of the main CP to conduct planning due to the temporary reassignment of representatives from the S-2, S-3, and fires cell sections in the main CP. This should be considered with anything other than temporary use of the TAC.

2-45. The TAC may operate in two to three armored vehicles modified for C2, with additional vehicles as determined by the commander. The crews of the vehicles in the TAC assist in operating radios and network systems, moving the vehicles, and providing security; thus, freeing the staff officers and NCOs to concentrate on the battle. Regardless, the TAC maintains continuous communication with the subordinate companies, specialty platoons, the BCT and other CPs, and supporting units or attachments. Due to the relatively small size of the TAC, managing security along with some form of rest plan requires direct supervision by senior leaders present, especially when operating for extended periods of time.

COMBAT TRAINS COMMAND POST

2-46. The CAB is resourced to generate a CTCP. The CTCP includes elements of the S-1 and S-4 section, serving as the focal point for administrative and logistic support. It serves as the connection between the CAB's companies forward in the close area and the FTCP in the BSA (see chapter 6).

2-47. The CAB commander considers the mission variables of METT-TC when determining where to establish the CTCP. There is no specified distance that the CTCP must be from the main CP or other company CPs. Rather, the CTCP should be located such that if the main CP or TAC receives direct or indirect fire, it can continue to function and, if necessary, assume C2 of the engagement or battle.

2-48. The battalion S-4 can serve as the CTCP officer in charge; however, either the CAB's FSC or HHC commander is present to exercise command over the CTCP and the combat trains, with responsibility for overall operations, movement, and security. The decision as to which company commander is present ultimately remains with the CAB commander. Regardless of the company commander present, neither are committed to remaining present at the CTCP or the combat trains at all times, and either is able to move throughout the CAB's AO as needed.

2-49. The CTCP serves the following functions:

- Monitors current operations and prepares to assume the functions of the main CP.
- Provides sustainment representation to the main CP for planning and integration.
- Net control station for the administrative and logistics (known as A&L) net.

- Monitors main and alternate supply routes and controls the sustainment traffic within the CAB's AO.
- Coordinates evacuation of casualties, equipment, and detainees.
- Plans, coordinates, and controls sustainment for tactical operations.
- Prepares to shift support if the main effort changes.
- Maintains personnel status and logistics status (known as LOGSTAT) reports on all organic and attached units.
- Establishes the MCP.
- Ensures personnel accountability of all assigned or attached CAB personnel.
- Provides essential personnel services.

2-50. The CTCP operates the same C2 systems that are present in the main CP and TAC to communicate across all digital C2 and radio platforms. Those in the CTCP must know how to operate and troubleshoot all present communication platforms in the absence of a dedicated communications representative from the S-6 section. Additionally, the CTCP maintains an analog map with the same overlays used in the main CP in order to track the disposition of friendly and enemy forces as well as all battalion and applicable brigade graphic control measures. If the CTCP assumes command of the fight, those personnel present require the same situational awareness of the battlefield as those in the main CP and TAC.

FIELD TRAINS COMMAND POST

2-51. When established, the FTCP serves as the CAB commander's primary direct coordination element between the BSB and the CAB (see chapter 6). The FTCP may be located in the BSA or may locate within the CAB's AO depending upon the operational environment. Locating the FTCP in the BSA can increase the responsiveness of the BSB capabilities to the CAB; however, doing so may also increases the size and potential vulnerability of the BSA to enemy attack. Both the BSB and CAB commanders should take this into account when considering where to place the FTCP. If the FTCP is not collocated with the BSA, the CAB commander should consider placing an LNO element within the BSA in order to coordinate such things as personal services, classes of supply, and maintenance on behalf of the CAB. Consider manning the element as a team of individuals, like the FSC XO, BMO, and assistant S-4. As with all LNOs, these individuals must be proactive, capable, and able to speak on behalf of the CAB with certainty. In addition, it is critical to coordinate with the BSA to ensure the LNO element has the right capabilities to communicate with the respective counterparts forward in the FTCP and CTCP.

2-52. As with the CTCP, either the FSC or HHC commander provides C2 over the FTCP. Regardless if the company commander is present, the FSC or HHC commander has the direct link to the brigade sustainment system in order to best support the CAB. The FTCP is usually the coordination and control center for the S-1's personnel and administration center, company supply sections, and the CAB's FSC. The FTCP serves the following functions:

- Synchronize and integrate the CAB's concept of support.
- Coordinate logistics requirements with the BSB support operations officer.
- Configure LOGPACs tailored to support requirements.
- Coordinate with brigade for personnel services and replacement operations.
- Forecast and coordinate future sustainment requirements.
- Track classes I, III, V, VIII, and IX consumption rates.
- Coordinate retrograde of equipment and personnel (CASEVAC, personnel movement, and human remains).
- Coordinate legal services.
- Coordinate postal services.

2-53. Depending upon the type and complexity of equipment repairs required by the CAB because of the threat or the environment, the automotive maintenance warrant officer may operate from either the FTCP or the MCP in the combat trains. Additionally, those tracked and wheeled mechanics that have the most proficiency with more complicated repairs may also remain in the FTCP. There is no specified location for each of the key leaders within the FSC, though consideration should be given to what best supports the

mission based upon the skills and experience of those available. However, the decision of leader placement ultimately remains with the CAB commander with recommendations from the FSC commander and 1SG.

2-54. Like the CTCP, the FTCP requires the same C2 systems that exist in the main CP. The BSB has the capability to provide the FTCP with upper tactical internet access if secure transmission of information is required. Additionally, the very small aperture terminal, or subsequent replacement systems, should be located in the FTCP in order to help facilitate maintenance operations as well as the ordering and distribution of class IX repair parts.

COMMAND POST SURVIVABILITY

2-55. CP survivability depends mostly on concealment and displacement. The best way to protect a CP is to prevent the enemy from detecting it by minimizing all signatures. Good camouflage and proper noise, light, and signal discipline enhance the security provided by a good location. In an urban environment, emphasis is placed on checkpoints, road blocks, and observation posts (OPs) to secure the CP.

CONCEALMENT

2-56. Concealment of a CP, regardless of type, is critical to the survivability of that CP. The use of radar-scattering camouflage netting in addition to natural vegetation can help prevent detection from the ground as well as the air. The outline of tents, antennas, command vehicles, and generators are distinctive, even from a distance, and all efforts must be made to breakup their outlines. Consideration should be given to concealing not only the vehicles and supporting equipment such as tents, antennas, and generators but also the tracks made by the vehicles moving into position to establish the CP. Based upon terrain and soil composition, it may be difficult to completely conceal the disturbed earth, though an effort must be made to do so. Communications systems are difficult to conceal; however, installing antennas as low as possible on the backside of a terrain feature or behind a man-made obstacle helps shield communications systems from enemy jamming. The use of camouflage will help conceal from above and from enemy reconnaissance. The CP should balance the use of natural and manmade concealment of communications systems and antennas against the degradation to the system's capability caused by that concealment. Some systems are negatively impacted by overhead cover.

2-57. The noise made by vehicle engines and generators may reveal the location of a CP long before an enemy is able to visually detect it. Orientation of the equipment's exhaust, such as ensuring that it faces towards the center of the CP footprint, may be able to reduce the equipment's audible signature. Running equipment engines only when absolutely necessary can also help reduce the signature as well. Personnel establishing the CP must ensure that there is adequate ventilation for the vehicle exhaust. Additionally, though the use of speakers either on a vehicle or within a tent may make it easier for all personnel in the immediate vicinity to gain situational awareness; this sound carries and can reveal the location of the CP. The use of headsets or handheld microphones can help reduce this likelihood.

2-58. Unnecessary movement of personnel and equipment, even under camouflage netting, can also reveal the CP's location. Although it may be not always possible, personnel should avoid silhouetting themselves against netting that has no backdrop when moving between tents or vehicles while under netting. Older netting that is torn or missing portions may make is easier to see Soldier movement. If the camouflage netting does not completely extend to the ground, it may also be possible to see the lower extremities of personnel as they move about behind the netting. If the operational environment allows it, an element from the CP, regardless of rank or position should walk the perimeter of the CP from a distance to confirm the effectiveness of the concealment efforts and make corrections as needed.

LOCATION

2-59. Built-up areas can serve as a location for CPs, providing cover and concealment, access to electricity and other services, and good access and egress routes. However, they also can put indigenous populations at risk and can provide enemy units covered and concealed positions to monitor and attack the CP. Built-up areas also may make it difficult of conceal the vehicles used by the CP personnel, increasing the likelihood of compromise and attack by the enemy.

2-60. If a built-up area is not available, position the CP on a reverse-slope with cover and concealment. Avoid key terrain features such as hilltops and crossroads. Locate CPs on ground that is trafficable, even in poor weather. Other considerations for positioning CPs include—

- Ensuring line of sight (LOS) communications with higher, lower, and adjacent units.
- Avoiding redundancy of communications (reduces electromagnetic signature).
- Masking signals from the enemy.
- Using terrain for passive security (cover and concealment).
- Co-locating with tactical units for mutual support and local security.
- Avoiding possible enemy target reference points (TRPs) for enemy artillery and CAS such as distinct terrain features, unique structures, or major road intersections.
- Locating the CP near an existing road network out of sight from possible enemy observation.

2-61. Other factors that can enhance survivability include dispersion, size, redundancy, and mobility. Large facilities and formations attract attention while smaller, mobile formations are more readily concealed and protected. (See FM 6-0 for more information.)

COMMAND POST SECURITY

2-62. CPs require a security force, and this force must have redundant communication with the CPs. The CAB establishes security force positions as in any defensive position. That is, with a 360-degree perimeter and located far enough out to prevent enemy direct fire on the CP. The security force should have antitank systems and man portable air defense weapons to protect the CP, dependent on the enemy threat. An established and well-rehearsed quick reaction force (QRF) can also add to the security of the perimeter defense. The composition of the QRF depends upon the enemy threat within the AO as well as the combat power available within the CAB. CABs usually rely on off-duty personnel for CP security though they may have a dedicated maneuver platoon if designated.

2-63. All subordinate units and elements of the CP receive near and far recognition signals. The CP uses these signals, challenges, and passwords to control access into its perimeter. In case of artillery or air attack, a designated rally point and an alternate CP should be at least 500 to 1,000 meters away.

COMMAND POST DISPLACEMENT

2-64. CPs can displace as a whole or, more often, by echelon. Displacement as a whole usually is reserved for short movements, with communications maintained by alternate means and minimal risk of degrading CP operations.

2-65. A portion of the CP, called an alternate CP, moves to the new location, sets up operations, and assumes C2 of the battle from the main CP. The remaining portion of the CP then moves to rejoin the alternate CP. The alternate CP includes the necessary vehicles, personnel, and equipment to assume CP operations while the remainder moves. At battalion level, the alternate CP usually comes from within the main CP. Another technique of displacement is to hand off control to the TAC, and move the main CP as a whole.

2-66. The CAB XO or S-3 selects a general location for the alternate CP site. A quartering party may accompany the alternate CP. The quartering party can consist of a security element, personnel, and equipment for quartering the remainder of the CP. The S-6, who is usually part of the quartering party, ensures that the new site can communicate on all nets and is suitable for satellite positioning given terrain and vegetation. When the alternate CP becomes operational, it also becomes the net control station for the unit. The *net control station* is a communications station designated to control traffic and enforce circuit discipline within a given net (ATP 6-02.53). The remainder of the CP then moves to rejoin the alternate CP.

COMMAND POST STANDARD OPERATING PROCEDURES

2-67. TACSOPs for each CP should be established, known to all, and rehearsed. The most effective TACSOPs are ones that are developed by the current members of the battalion and refined after each major and minor training event. Simply copying a TACSOP from another CAB does not consider the unique character of the equipment and personnel within the CAB. An inclusive CP SOP will assist with efficient C2.

The CAB's SOP must be nested and support the SOP for the ABCT, just as a company SOP should be nested within the CAB SOP to ensure they are mutually supporting one another. Some items to include are—

- The CP rules of conduct.
- The duties and responsibilities of key personnel.
- The establishment of the CP (site selection and setup).
- The battle rhythm.
- The staffing and shifts plans, including eating, fitness, and sleeping plans.
- The CP battle drills.
- The building and maintaining of situational understanding (digital and analog).
- The displacement of the CP.
- The physical security and defense.
- Priorities of work to drive capability (for example, security, followed by communications, battle trackers, and then tentage).
- Loading plans and checklists.
- Orders production.
- Maintenance of CP journals and logs (DA Form 1594, [*Daily Staff Journal or Duty Officer's Log*]).

Note. Detailed information for developing SOPs can be found in ATP 3-90.90.

2-68. Although the CAB is digitally equipped, elements of the CAB may be operating within joint or multinational environments that do not have the same, or interoperable, equipment. In such cases, the staff must consider that integrating an analog unit into the CAB requires the use of older analog control techniques. In essence, two control systems must be in operation, with particular attention paid to keeping the analog unit(s) apprised of all the relevant information that is flowing digitally. The CAB TACSOP should include—

- Production and distribution of hard copy orders and graphics.
- More graphic control measures. Digital units tend to use fewer graphic control measures due to increased situational understanding.
- Instructions on how to receive standardized reports over voice communications.
- Procedures to equip LNO teams with digital systems to give analog units limited connectivity.

MAPS AND CHARTS

2-69. Maps and charts help staffs present relevant information to the commander. Although the CAB has numerous digital information systems that assist in presenting that information, it is easy to become overwhelmed. The CP maintains current information in the form of easily understood map graphics and charts. Combining situation maps with status charts gives the CAB commander and staff a snapshot during the planning process and during battle execution. Commanders and staffs must update this information continuously. Examples of information to be plotted and tracked include—

- CCIRs.
- Friendly unit locations.
- Enemy unit locations.
- DST or matrix.
- Execution matrix.
- Information collection matrix or overlay.
- Named areas of interest (NAIs) and target areas of interest (TAIs).
- Graphic control measures (restrictive and permissive).
- Obstacles (friendly and enemy).
- Personnel status.
- Weapons system status.

- Equipment and pacing item status.
- Main and alternate supply routes.
- LRPs.
- AXPs.
- Classes I, III, V, and VIII.
- Communication network status.

2-70. There is no single best way to display the various charts. The XO or S-3 ensures the information is displayed in a manner that best helps the CAB commander understand the fight as well as the most current status of the CAB. For analog charts, the information displayed must be clear and easy to read, reducing any chance that the CAB commander or other decision-maker misinterprets the data. Many times, this simply comes down to having new acetate overlays, with the proper sized overlay markers, used by a Soldier with consistently legible handwriting.

2-71. For simplicity, analog and digital maps should be the same scale. This makes the information easier to comprehend when transitioning from one view to another. Following operations, the members of the CP should conduct an after-action review on the tracking systems to ensure they provided the CAB commander and staff with the pertinent information needed to plan, prepare, and execute the mission or operation.

PERSONNEL

2-72. The battle captain, assistant operations sergeant (battle NCO), and operations sergeant major are vital to effective CP operations. Other key staff personnel responsibilities are discussed throughout with respect to the primary warfighting function each support. (See FM 6-0 and ATP 6-0.5 for more information.)

Battle Captain

2-73. The battle captain is the shift officer in charge within a CP and is associated with position, not rank. The battle captain assists the CAB commander, XO, and S-3 by being the focal point for communications, coordination, and information management. The battle captain's role is to plan, coordinate, supervise, and maintain communication flow throughout the main CP to ensure the success of all assigned missions. The battle captain can also be the main CP officer in charge in the absence of the commander, XO, and S-3.

2-74. The battle captain has the overall responsibility for the smooth functioning of the main CP and its staff sections. This responsibility includes—

- Maintaining continuous operations of the CP while static and mobile.
- Ensuring communication is maintained with and between all stations and that all messages and reports are routed and logged per CAB SOP.
- Assisting the XO with information management and coordination of CP staff functions to ensure a smooth and continuous information flow between the staff sections of the CP.
- Processing relevant data from the incoming flow of information to ensure all tactical and logistical information is gathered and provided to the CP staff on a regular basis.
- Tracking CCIRs and providing recommendations to the CAB commander and XO.
- Sending reports to brigade or division headquarters, ensuring that relevant information is passed to subordinate units.
- Providing security for the CP to include physical security and maintenance of noise and light discipline.
- Ensuring mobility of the CP which includes configuration, equipment, and training in order to facilitate rapid movement.
- Conducting CP battle drills and enforcing the CP SOP.
- Battle tracking the current situation using DSTs, triggers, and execution matrices to ensure events are proceeding as planned.
- Ensuring that all stations maintain communications with and among each other and that station personnel route and log all messages and reports according to CP SOP.

- Processing essential data from the incoming flow of information; gathering all tactical and logistical information; and distributing the information to the XO, S-3, and other staff sections on a regular basis.
- Ensuring COPs (digital and analog) are up-to-date.
- Managing requests for information to higher headquarters and their responses.
- Ensuring prompt clearance of fires.

2-75. The battle captain ensures that all staff sections in the main CP understand their functions per the CAB TACSOP, coordinates staff briefings, updates displays and charts, and performs other staff actions. As a focal point in the CP, the battle captain processes essential information from incoming data, assesses it, ensures dissemination, and makes recommendations to the CAB leadership or staff section. The battle captain assists the CAB commander by ensuring the warfighting functions stay synchronized.

2-76. Information management in the CP can include processing electronic mail, journals, messages, reports, mission orders, and requests for information. Battle captains ensure the consistency, accuracy, and timeliness of information leaving the CP, including preparing and dispatching FRAGORDs and WARNORDs. In addition, they monitor and enforce chart and status board updates which are necessary for battle management, ensuring the posted information is timely, accurate, and accessible.

2-77. To function effectively, the battle captain requires a working knowledge of all sections in the main CP, understanding the unit TACSOP, and must ensure the staff sections use the TACSOP. The battle captain must know the current plan and task-organization of the unit, and understand the commander's intent. In addition, the battle captain must understand the limits of one's own decision-making and action authority.

2-78. The CAB commander and staff must include the battle captain in the decision-making process as the battle captain must know the rationale behind certain key decisions. The battle captain must know the technical aspects of the battle plan and understand the time-space relationship to execute any specific support task. Battle captains must understand and enforce the battle rhythm—the standard events or actions that happen during a typical 24-hour period, and ensure that the main CP staff is effective throughout the period. Battle captains use their judgment to adjust staff activities and events to accomplish the CP mission across different shifts, varying tactical circumstances, and changes in CP location.

Assistant Operations Sergeant

2-79. The assistant operations sergeant, sometimes referred to as the battle NCO, works in the main CP and assists the battle captain and operations sergeant major in ensuring the CP runs efficiently. The assistant operations sergeant—

- Assists the battle captain as required.
- Receives information, monitors the situation, and updates the digital and analog COP.
- Manages requests for information to higher headquarters and their responses.
- Ensures that reports and messages are distributed properly.
- Supervises the publication of orders and graphics.
- Supervises all the enlisted personnel in the CP during their shift.
- Manages guard rosters, sleep plans, and shift schedules.
- Supervises journal clerks, radio-telephone operators, and computer operators in recording, disseminating, and posting of information.

Operations Sergeant Major

2-80. The operations sergeant major is the senior NCO in the main CP and is responsible for running the CP. The operations sergeant major is responsible for the proper manning, training, equipment, and execution of CP operations. The operations sergeant major is responsible for ensuring that all assigned and attached personnel adhere to unit standards and TACSOPs (including movement, setup, maintenance of power and climate control if available, and internal security). The success of operations in the CP can be directly attributed to how well the operations sergeant major runs the CP.

2-81. The operations sergeant major directs section NCOs to manage guard rosters, sleep plans, and shift schedules as well as to maintain discipline in and around the CP. The operations sergeant major works hand in hand with the headquarters company NCO in charge on the logistics requirements, tactical employment, and security of the CP. Specific duties of the operations sergeant major include—

- Leading, guiding, training, and mentoring Soldiers during CP operations.
- Assisting in the setup and conduct of rehearsals and briefings to include OPORD briefs.
- Enforcing standards and discipline in and around the CP.
- Assisting in development and refinement of the unit's SOPs.
- Recommending priorities regarding allocation of resources.
- Preparing operational records and reports and ensuring the implementation of administrative policies and procedures.
- Directing the planning, implementation, and supervision of the CP security and defense plan.
- Coordinating with brigade or division headquarters for life support.
- Assisting with planning, implementing, and supervising CP displacement.
- Overseeing the setup, operation, and dismantling of the CP.
- Assisting with casualty and equipment evacuation operations.
- Directing the shift NCO in charge on traffic control, shift changes, orders production, communication nets, net discipline, and reporting log accuracy.

2-82. Usually, the operations sergeant major is responsible for conducting the main CP battle drills. Unit TACSOPs define these drills, and units should rehearse them during training and operations. CP battle drills may include but not limited to—

- Clearance of fires.
- React to an air attack.
- React to a ground attack.
- React to indirect fire.
- React to a CBRN attack.
- React to jamming or suspected communications/cyber compromise.
- Execute a CAS or joint fires mission.
- React to a mass casualty incident.
- Execute a downed aircraft recovery team mission.
- Execute time-sensitive targets.
- React to a civil riot or incident.
- React to significant collateral damage.
- React to a misinformation incident.

Liaison Officer

2-83. The CAB CPs may receive liaison personnel to aid in coordination, synchronization, and planning. Incoming liaison personnel require their own transportation and communications links to their parent headquarters. The CAB S-6 coordinates with the incoming liaison, or their S-6 equivalent, to ensure the interoperability of any communication equipment that may come with the liaison. The liaison must have clearly defined duties and responsibilities and submit to any necessary background checks required to operate within a U.S. Army CP.

SECTION III – COMMUNICATIONS INFRASTRUCTURE

2-84. Communications is the means through which the CAB exercises C2. There must be open communication up, down, and laterally. Effective communications at all levels is a challenge due to the influx of technology and the fog of war. Communications are further complicated during combined arms maneuver and operational environments with reduced LOS. Training, planning, and rehearsing communications should include—

- Back-up means of communications at key locations.
- TACSOPs that specify immediate actions to take in case of jamming or COMSEC compromised, including prearranged alternate frequencies and code words.
- Practice disciplined communications procedures to eliminate nonessential conversations and avoid overloading communications systems.

RESPONSIBILITIES

2-85. The CAB must take immediate action to restore lost communications; this includes communications among headquarters CPs. These responsibilities apply to establishing a liaison between headquarters. The priority of responsibilities for communications is—

- Senior to subordinate.
- Supporting to supported.
- Reinforcing to reinforced.
- Passing to stationary (for forward passage of lines).
- Stationary to passed (for rearward passage of lines [known as RPOL]).
- Lateral (left to right or rearward to forward).

2-86. The CAB has an integrated architecture of communications systems and networks to aid the CAB commander in C2. These capabilities enable rapid exchange of information between commander and subordinates, staff, and higher headquarters. The CAB's communications and networks—

- Provide the information needed to develop situational understanding in support of the CAB's mission.
- Support the commander's implementation of C2 by regulating forces and functions per the commander's intent.
- Provide a link to develop a COP of the situation.
- Recognize and protect friendly forces.
- Conduct operations with lethal and nonlethal effects.
- Operate with joint and multinational forces.

RADIO AND DIGITAL COMMUNICATIONS

2-87. METT-TC and TACSOPs dictate whether a CP will use analog, radio or digital means of communication. For the purpose of further discussion, radio refers to ultra, high, and very high frequency along with satellite communication radios. However, it must be noted that each of the four categories of radio do provide different functions to the user, whether its range or volume of data transferred with each transmission. Most notably, in an electromagnetic spectrum (EMS) degraded environment, high-frequency radios may be the most effective at transmitting and receiving information, as they are least impacted by jamming measures. Even though all systems are critical for effective C2 within the CAB, radio communication provides the primary method for control during operations while on the move, with additional support from the situational information display provided by digital C2 platforms.

2-88. Radio is the primary method of communications when units are in contact. Both before and after an engagement, the staff and commanders use digital systems to disseminate orders and graphics and to conduct routine reporting. During operations, however, the staff uses a combination of systems to report and coordinate with higher and adjacent units and must maintain the flexibility to quickly transition through the established PACE plan as maintaining continuous communication supports maintaining situational awareness.

2-89. Staffs remain sensitive to the difficulty and danger of using digital systems when moving or in contact. However, as digital reporting builds the COP (particularly the posting of enemy icons), failure to render such reports results in an incomplete COP. The units must build the COP as the action occurs in order to provide

the commander with a COP that contains relevant information that enables decision-making. Other general guidelines include—

- CAB personnel at any echelon should use frequency modulation (FM) radio to report initial contact; digital enemy spot reports should follow as soon as possible to generate enemy situational information.
- Elements moving throughout the AO (not in CPs) use FM radio unless they can stop and generate a digital message or report.
- Emergency sustainment requests, especially CASEVAC or MEDEVAC requests, should be initiated on FM radio with a follow-up digital report if possible.
- Maneuver elements moving or in contact should transmit enemy spot reports on FM voice; higher headquarters converts FM radio reports into digital spot reports to generate situational information.
- Calls for fire on targets of opportunity should be initiated on voice radio with fire support teams (FISTs) digitally submitting the request to AFATDS.
- When equipped with the far target locator, vehicle crews can engage the target with the far target locator and select the call for fire message button on the spot report, enabling a digital call for fire.
- In the initial part of an engagement, FISTs should send planned calls for fire digitally.
- Units should send routine logistical reports and requests digitally.
- Subordinates to the CAB should send routine reports digitally prior to and following contact with the enemy.
- Units should send orders, plans, and graphics digitally, accompanied by an FM voice call to alert recipients that they will receive critical information. Additionally, the transmitting element requests that an appropriate Soldier (usually not the computer operator or radio telephone operator but rather the battle captain or NCO) verbally acknowledge receipt and understanding of the transmitted information.
- Units should send obstacle and CBRN-1 reports by FM radio initially and then follow with digital reports. The digital reports can generate a geo-referenced situational information message portraying the obstacle or contaminated area across the network.

LIMITATION OF DIGITAL MISSION COMMAND SYSTEMS

2-90. Various types of digital systems are difficult to employ while moving. Some of the digital systems must be stationary or have LOS communications with BCT network systems. Although digital C2 platforms can provide a good deal of situational awareness to the CAB commander and the staff while still mobile, the full capabilities of these systems might not be available when the CAB main CP is moving or preparing to move.

2-91. Because of this limitation, it is important that the staff develops and rehearses drills for transferring the functions of the main CP to an alternate CP. Whenever the tactical situation requires the main CP to displace, the main CP staff can transfer functions to the TAC, CTCP, FTCP, or a combination of the CAB's alternate CPs.

2-92. CABs should consider integrating the planned displacement of the main CP into the DST to ensure smooth transfer of the main CP functions. Detailed planning in coordination with the S-3 (scheme of maneuver) and the S-6 (scheme of signal support) should enable the battalion to determine the optimal time to displace the main CP. This helps to ensure that the main CP reestablishes adequate communication with higher and subordinate units during the decisive operation.

2-93. The CAB staff must be prepared and resourced to execute C2 of the CAB regardless of the availability of digital systems. Sometimes the tactical situation precludes the effective use of digital C2 systems. The CAB staff trains and rehearses analog methods (for example, voice radio) of executing C2 over the subordinate units. The staff also can use voice radio communications to meet the reporting requirements of higher headquarters.

RADIO NETWORKS

2-94. The CAB operates on several external and internal radio networks. Table 2-1 provides lists of these networks, and the following paragraphs provide information about each.

Table 2-1. Combined arms battalion radio networks

External Networks	*Internal Networks*
Brigade Command Net (Digital and Voice)	Battalion Command Net (Digital and Voice)
Brigade Operations and Intelligence (O&I) Net	Battalion Operations and Intelligence (O&I) Net
Brigade Fires Net	Battalion Fires Net
Brigade Administrative and Logistics (A&L) Net	Battalion Administrative and Logistics (A&L) Net
	Retransmission Net
	Company Net

Brigade Command Net

2-95. The brigade command net is a secure FM radio net. The S-3 section controls this net at the BCT main CP, and BCT command uses the net to execute mission command. All organic and attached units, the BCT fire support coordinator, ALO, and supporting units operate on this net. The brigade uses the command net to send critical combat information to the CAB commander or the S-3 and to enable the CAB and BCT commanders to talk to each other. The CAB command group, TAC, and main CP also monitor this net and respond, if necessary, for the CAB commander.

Brigade Operations and Intelligence Net

2-96. The brigade operations and intelligence net is a secure FM net; the S-2 section controls this net at the BCT main CP. The brigade sends all routine tactical reports and other intelligence matters on the operations and intelligence net, freeing the command net for command and critical combat traffic. The CAB command group, TAC, and main CP monitor this net.

Brigade Fires Net

2-97. The brigade fires net is a secure FM radio net; the BCT fires cell controls this net at the BCT main CP. The CAB command group, TAC, and main CP monitor this net.

Brigade Administrative and Logistics Net

2-98. BCT A&L net is a secure FM radio net. The BCT S-4 section controls the brigade A&L net at the BCT main CP. The CAB main CP, CTCP, and FTCP monitor this net.

Battalion Command Net

2-99. The S-3 section controls this secure FM net at the main CP. CAB command uses this net for mission command. All organic and attached units, the FSO, the ALO, and supporting units operate on this net. The command net provides the means by which the commander or the S-3 receives critical combat information, and it enables the CAB and company commanders to talk to each other. Other units (such as mortar and scout platoons) also monitor this net and respond if necessary.

Battalion Operations and Intelligence Net

2-100. The S-2 controls this secure FM net at the main CP. The S-2 sends all routine tactical reports and other intelligence matters on this net. This net frees the battalion command net for command and critical combat traffic.

Battalion Fires Net

2-101. The battalion fires net is a secure FM net that the fires cell controls in the main CP. It is the primary means of calling for indirect fires or CAS for the CAB. Company FISTs, the main CP, command group, TAC, and mortar platoon use this net.

Battalion Administrative and Logistics Net

2-102. The battalion A&L net is a secure FM net that the S-4 section controls. The S-4 section uses this net to send and receive A&L reports and coordinate maintenance operations. The CAB XO, company 1SGs, main CP, medical platoon, FSC, and combat trains operate on the A&L net. The CTCP and FTCP also operate on this net.

Retransmission Net

2-103. The CAB S-6 section has one RETRANS team, dedicated to the RETRANS of any two of the battalion nets. The team has the capability for retransmitting two FM nets using single-channel ground and airborne radio system (SINCGARS). The S-6 positions the RETRANS team in the battalion AO, balancing the need to maximize LOS and range with the requirements of local security. RETRANS capabilities and limitations are important planning considerations when operating in a noncontiguous AO.

Company Nets

2-104. Each company operates its own command net. The company command net is a secure FM net that the company XO controls in the company CP. All organic and attached elements of the company operate on this net. Company leaders forward all tactical and logistics reports to the company CP on this net. Subordinate platoons operate their own internal nets.

COMMUNICATIONS SYSTEMS

2-105. The CAB relies on an architecture of communications systems and their associated networks that collectively enables battle command. Not all components of the architecture are under CAB or ABCT control. The tactical radio network is a critical tool in the fight and must be robust, redundant, flexible, and adaptive. It is important that all CAB leaders are familiar with the capabilities and limitations of the communications architecture. Significant components of this network are—

- SINCGARS.
- Warfighter Information Network-Tactical (known as WIN-T).
- Tactical satellite.

2-106. The SINCGARS family of radios is the primary means of voice communications available to the CAB. The CAB uses SINCGARS primarily as a voice transmitter, but also uses it to pass limited data transmissions and for short-range, secure voice communications. The planning range for this system is a maximum of 10 kilometers dismounted and 40 kilometers mounted. Since large terrain features can block FM radios, RETRANS teams usually are used to ensure coverage of the BCT AO. SINCGARS features include—

- Very high frequency, FM radio system.
- Secure communications by transmitting tactical voice and data, using COMSEC and frequency hopping technologies.

Warfighter Information Network-Tactical

2-107. Within the CAB, the S-6 section installs, operates, and maintains the WIN-T systems. WIN-T provides the CAB commander with networking capability either while on the move or stationary, depending upon the increment variant. WIN-T Increment 1b operates at-the-halt only, whereas Increment 2 delivers a mobile capability that reduces reliance on fixed infrastructure and allows the CAB commander and other key leaders to move on the battlefield while retaining situational awareness and C2 capabilities. Refer to ATP 6-02.45 for the complete WIN-T Increment 1b systems, capabilities, and components. Refer to

ATP 6-02.60 for the WIN-T Increment 2 systems, capabilities, and components. The CAB's WIN-T increments variant includes—

- WIN-T Increment 1b:
  - Joint Network Node.
  - Command Post Node.
  - Satellite Transport Terminal.
  - Terrestrial Transmission Line-of-Sight.
- WIN-T Increment 2:
  - Tactical Communication Node.
  - Satellite Transport Terminal.
  - Point of Presence.
  - Soldier Network Extension.

Tactical Network

2-108. The tactical network is a collection of interconnected tactical radios, computer hardware, and software. It provides situational information and data to support C2 at BCT and below. In general, the maneuvering vehicles of the CAB rely on these four primary systems for communications:

- Blue Force Tracker 1 and 2.
- SINCGARS.
- Force XXI Battle Command, brigade and below (FBCB2) or Joint Capability Release or Joint Battle Command-Platform (known as JBC-P).

2-109. Blue Force Tracker 1 and Blue Force Tracker 2 are the transceivers (transport) for position location information and FBCB2, Joint Capability Release or JBC-P generated data. These transceivers utilize satellites to provide beyond LOS data communications.

2-110. FBCB2, Joint Capability Release, and JBC-P application software provides the ability to send digital messages (FBCB2); in addition, Joint Capability Release provides a text chat capability and JBC-P adds tactical ground reporting and collaboration tools. SINCGARS is primarily a voice transmitter, but it can also handle limited data transmissions.

ELECTROMAGNETIC WARFARE

2-111. *Electromagnetic warfare* is military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy (JP 3-85). The commander integrates EW activities into operations through cyberspace electromagnetic activities. EW capabilities are applied from the air, land, and sea by manned, unmanned, attended, or unattended systems. *Cyberspace electromagnetic activities* are the process of planning, integrating, and synchronizing cyberspace and electronic warfare operations in support of unified land operations (ADP 3-0). *Cyberspace operations* are the employment of cyberspace capabilities where the primary purpose is to achieve objectives in or through cyberspace (JP 3-0).

2-112. *Electromagnetic attack* is a division of electromagnetic warfare involving the use of electromagnetic energy, directed energy, or antiradiation weapons to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability and is considered a form of fires (JP 3-85). Army forces conduct electromagnetic attack for both offensive and defensive purposes. Offensive electromagnetic attack projects power in the EMS and includes such actions as jamming enemy spectrum-dependent systems and devices or employing direct energy weapons to deny, disrupt, or destroy enemy equipment or capabilities. Defensive electromagnetic attack also supports OPSEC by degrading, neutralizing, or destroying an enemy's surveillance capabilities against protected units and activities. Defensive electromagnetic attack uses the EMS to protect personnel, facilities, capabilities, and equipment. Examples include self-protection and other protection measures such as the use of expendables (flares and active decoys), jammers, towed decoys, directed-energy infrared countermeasures, and counter radio controlled improvised explosive device systems.

ELECTROMAGNETIC PROTECTION

2-113. *Electromagnetic protection* (EP) is the division of electromagnetic warfare involving the actions taken to protect personnel, facilities, and equipment from any effects of friendly or enemy use of the electromagnetic spectrum that degrade, neutralize, or destroy friendly combat capability (JP 3-85). For example, EP includes actions taken by the commander to ensure friendly use of the EMS, such as frequency agility in a radio or variable pulse repetition frequency in radar. The commander avoids confusing EP with self-protection. However, EP protects from the effects of electromagnetic attack (friendly and enemy) and electromagnetic interference, while defensive electromagnetic attack primarily protects against lethal attacks by denying enemy use of the EMS to guide or trigger weapons.

Commander's Electromagnetic Protection Responsibilities

2-114. EP is a command responsibility. The more emphasis the CAB commander places on EP, the greater the benefits, in terms of casualty reduction and combat survivability, in a hostile environment or degraded information environment. The CAB commander ensures the battalion trains on and practices sound EP techniques and procedures. The commander continually measures the effectiveness of EP techniques and procedures used within the battalion throughout the operations process. Commander EP responsibilities are—

- Review all information on jamming and deception reports, and assess the effectiveness of defensive EP.
- Ensure the battalion S-6 and S-2, in coordination with the EW NCO, report and properly analyze all encounters of electromagnetic interference, deception, and jamming.
- Analyze the impact of enemy efforts to disrupt or destroy friendly communications systems on friendly operation plans.
- Ensure the battalion exercises COMSEC techniques daily. Subordinate units should—
  - Change network call signs and frequencies often (per the signal operating instructions).
  - Use approved encryption systems, brevity codes, and authentication systems.
  - Control emissions to limit electromagnetic signature.
  - Make EP equipment requirements known through quick reaction capabilities designed to expedite procedure for solving, research, development, procurement, testing, evaluation, installations modification, and logistics problems as they pertain to EW.
  - Ensure quick repair of radios with mechanical or electrical faults; this is one way to reduce radio-distinguishing characteristics.
  - Practice network discipline.
  - Preplanned transmissions: quick and precise.
  - Rehearse react to jamming as a form of contact.
  - Employ minimal number of antennas needed and maximize cable length to maintain distance from CPs.

Electromagnetic Warfare Noncommissioned Officer

2-115. The EW NCO serves as the subject matter expert for the CAB commander regarding the EMS. The EW NCO conducts formation emission control (EMCON) analysis (via planning and management tools) and recommends EMCON plans in order to reduce the electromagnetic signature of the CAB. Additionally, the EW NCO:

- Plans, integrates, and synchronizes BCT EW platoon support with CAB operations.
- Manages organic EW systems such as crew systems and spectrum analyzers within the CAB.
- Develops and integrates EW training for the CAB.

Staff Electromagnetic Protection Responsibilities

2-116. The battalion staff assists the commander in accomplishing EP requirements. Specifically, the staff responds immediately to the commander and subordinate units. The staff—

- Keeps the commander informed.

- Reduces the time to control, integrate, and coordinate operations.
- Reduces the chance for error.

2-117. The battalion staff provides information, furnishes estimates, and provides recommendations to the commander. Specific battalion staff officer responsibilities include the—

- S-2. Advise the commander of enemy capabilities that could be used to deny the unit effective use of the EMS or enemy signals intelligence capabilities that could detect friendly forces. Keep the commander informed of the battalion's COMSEC.
- S-3. Exercise staff responsibility for EP. Include EW support and electromagnetic attack considerations throughout the operations process and evaluate EP techniques and procedures employed. Ensure EP training is included in all unit-training programs and troop leading procedures (TLP) during operations.
- S-6. Exercise staff responsibility for COMSEC and support EP. The S-6 coordinates with the EW NCO:
  - Prepares and conducts the unit EP training program.
  - Ensures alternate means of communications for those systems most vulnerable to enemy jamming.
  - Ensures distribution of available COMSEC equipment to those systems most vulnerable to enemy information gathering activities.
  - Ensures measures are taken to protect critical friendly frequencies from intentional and unintentional electromagnetic interference.

Communications Security

2-118. EP and COMSEC are closely related; they are defensive arts based on the same principle. If adversaries and enemies do not have access to the EEFIs, they are much less effective. The battalion practices sound EP techniques to ensure effective use of the EMS. The battalion uses COMSEC to ensure the enemy cannot exploit the friendly use of EMS for communication. COMSEC techniques are designed to give the commander confidence in the security of battalion transmissions. COMSEC and EP is planned by the battalion based on the enemy's ability to gather intelligence and degrade friendly communications systems. (See ATP 6-02.53 and ATP 6-02.54 for additional information.)

COMMUNICATIONS PLANNING CONSIDERATIONS

2-119. The battalion staff, specifically the S-6 in coordination with the S-2, S-3, and EW NCO, assess threats to friendly communications during the communications planning process. Planning counters the enemy's attempts to take advantage of the vulnerabilities of friendly communications systems. Ultimately, the commander, subordinate commanders, staff planners, and radio and network operators are responsible for the security and continued operation of all mission command systems. At a minimum, four categories of EP planning must be considered: deployment, employment, replacement, and concealment.

Communications Planning

2-120. When conducting communications planning, the S-6 uses spectrum management tools to assist in EMS planning and to define and support requirements. The S-6 coordinates all frequency use before any emitter is activated to mitigate or eliminate electromagnetic interference or other negligible effects and considers the following when conducting EMS management planning:

- Transmitter and receiver locations.
- Antenna technical parameters and characteristics.
- Number of frequencies desired and separation requirements.
- Nature of the operation (fixed, mobile land, mobile aeronautical, and over water or maritime).
- Physical effects of the operational environment (ground and soil type, humidity, and topology).
- All EMS-dependent equipment to be employed to include emitters, sensors, and unmanned aerial sensors.

- Start and end dates for use.
- Civilian and enemy frequency usage and interference.

Primary, Alternate, Contingency, and Emergency Plan

2-121. The PACE communication plan exists for a specific mission or task, not a specific unit, the PACE plan considers intra- and inter-unit sharing of information. The PACE plan designates the order in which an element will move through available communications systems until contact can be established with the desired distant element. The S-6 develops a PACE plan for each phase of an operation to ensure that the commander can maintain mission command of the formation. However, each staff section must also look at any mission specific equipment (such as the fires section's AFATDS or operations section's Global Rapid Response Information Package if available) that is unique to their warfighting function and, if necessary, develop their own internal PACE plan to ensure continuity of communication and capability. The plan reflects the training, equipment status, and true capabilities of the formation. The ABCT S-6 evaluates its communication requirements with the CAB and works with the CAB S-6 to develop an effective plan. Upon receipt of an order, the CAB S-6 evaluates the PACE plan for two key elements as follows:

- Does the CAB have the capabilities to execute the plan?
- How can the CAB nest with the plan when it develops its own plan?

2-122. Accurate PACE plans are crucial to the commander's situational awareness. A subordinate unit (considerations include those for HN and multinational forces) that is untrained on a particular communication system or lacks all of the subcomponents to make the system mission capable does not ensure continuity of C2 by including the communication system in the PACE plan. The commander's ability to exercise C2 during an operation can suffer due to communications systems that are in transit or otherwise unavailable.

2-123. If the battalion or a subordinate unit is unable to employ all PACE platforms, it is appropriate to issue a PACE plan that may only have two or three systems listed. If the CAB cannot execute the full PACE plan to its higher command, it must inform the issuing headquarters with an assessment of shortfalls, gaps, and possible mitigations as part of the mission analysis process during the MDMP. During COA development, the S-6 nests the subordinate unit's plan with the higher command's plan whenever practical. This aids in maintaining continuity of effort. (See ATP 6-02.53 and ATP 6-02.54 for additional information.)

2-124. Important to the execution of the PACE plan is that, once a change has been made from primary to alternate due to equipment failure or enemy intervention for example, all attempts are made to return to the original communications platform. Doing this enables a return to the most preferred, or effective, communication platform for the given phase of the operation.

Deployment

2-125. The S-6 analyzes the terrain and determines the method(s) to make the geometry of the operations work to support the commander's plan. Adhering rigidly to standard CP deployment makes it easier for the enemy to use the direction finder and aim jamming equipment. Based on the operational environment, the locations of friendly emitters will constantly change. The locations must be analyzed by the S-6 in order to predict possible interference. Planners must consider the following prior to deployment of capabilities. CP locations determine antenna locations. Antennas and emitters should be dispersed and positioned at the maximum remote distance and terrain dependent from the CP. This will allow the unit's transmission not come from one central location. Deploying units and communications systems perpendicular to the forward line of own troops (FLOT) enhances the enemy's ability to intercept communication by aiming transmissions in the enemy's direction. When possible, install terrestrial LOS communications parallel to the FLOT. This supports keeping the primary strength of U.S. transmissions in friendly terrain.

2-126. When possible, utilize terrain features to mask friendly communication from enemy positions. This may require moving headquarters elements farther forward and using more jump or TACs to ensure the commander can continue to direct units effectively.

Employment

2-127. Signal planners should develop communications architectures using systems that operate on multiple transmission paths. This involves establishing sufficient communications paths to ensure that the loss of one or more transmission paths does not seriously degrade the overall communications architecture. The commander establishes the priorities of critical communications systems and networks. Provide high priority links with the greatest number of alternate routes. Alternate routes enable friendly units to continue to communicate despite the enemy's efforts to deny them the use of their communications architecture. Alternate routes can also be used to transmit false messages and orders on the route that is experiencing electromagnetic interference, while units transmit actual messages and orders through another transmission path or means. A positive benefit of continuing to operate in a degraded system is that the problematic degraded system causes the enemy to waste assets used to impair friendly communication elsewhere. Three routing concepts, or some permutation of them, can be used in communications as follows:

- Straight-line system. Provides no alternate routes of communications.
- Circular system. Provides one alternate route of communications.
- Grid system. Provides as many alternate routes of communications as can be practically planned.

2-128. Avoid establishing a pattern of communication. Enemy intelligence analysts may be able to extract information from the pattern and text of friendly transmissions. If easily identifiable patterns of friendly communication are established, the enemy can gain valuable information.

2-129. The number of friendly transmissions tends to increase or decrease according to the type of tactical operation being executed. Execute deceptive communication traffic by using false peaks, or traffic leveling. Utilize false peaks to prevent the enemy from connecting an increase of communications with a tactical operation. Transmission increases on a random schedule create false peaks. Tactically accomplish traffic leveling by designing messages to transmit when there is a decrease in transmission traffic. Traffic leveling keeps the transmission traffic constant. Coordinate messages transmitted for traffic leveling or false peaks to avoid OPSEC violations, electromagnetic interference, and confusion among friendly equipment operators.

Emission Control

2-130. The control of electromagnetic emissions is essential to successfully defend against the enemy's attempts to destroy or disrupt the CAB's communications. EMCON is the selective and controlled use of electromagnetic, acoustic, or other emitters to optimize C2 capabilities while minimizing signature, for OPSEC. When operating radios, the CAB exercises EMCON at all times within all echelons and only transmits when needed to accomplish the mission. Enemy intelligence analysts look for patterns they can turn into usable information. Inactive friendly transmitters do not provide the enemy with useable intelligence. EMCON can be total; for example, the commander may direct radio silence whenever desired. *Radio silence* is the status on a radio network in which all stations are directed to continuously monitor without transmitting, except under established criteria (ATP 6-02.53).

2-131. Unit operators keep transmissions to a minimum (20 seconds absolute maximum, 15 seconds maximum preferred) and transmit only mission-critical information. Good EMCON makes the use of communications equipment appear random and is therefore consistent with good EP practices. This technique alone will not eliminate the enemy's ability to find a friendly transmitter; but when combined with other EP techniques, it makes locating a transmitter more difficult. Every radio in your formation can be detected. Have an EMCON plan based on the current threat situation. Enforce radio discipline. A PACE plan is only one step. EMCON, in conjunction with PACE, more effectively disrupts an adversary's ability to detect and locate friendly forces.

Replacement

2-132. Replacement involves establishing alternate routes and means of doing what the CAB commander requires. FM voice communications are the most critical communications used for reporting enemy engagements and require reserving critical systems for critical operations. The enemy should not have access to information about friendly critical systems until the information is useless.

2-133. The CAB utilizes alternate means of communication before enemy engagements. This ensures the enemy cannot establish a database to destroy primary means of communication. If the primary means

degrades, replace primary systems with alternate means of communication. Replacements require preplanning and careful coordination; if not, compromise of the alternate means of communication occurs and is no longer useful as the primary means of communication. Users of communications equipment require knowledge of how and when to use the primary and alternate means of communication.

2-134. The concept of replacement should also consider the urgency of the communication. Communication plans should be coordinated in a way that allow units to prioritize emergency traffic on alternate, contingent, and emergency systems in situations such as troops in contact. If well-coordinated, the PACE plan does not have to follow a 1st, then 2nd, then 3rd, then 4th methodology. The PACE can be used to prioritize traffic based on urgency of the message.

Concealment

2-135. A large number of antennas, their electronic emissions, and support towers are common in CP. If tactically feasible, CP should use remote antennas to reduce the vulnerability of the CP to collateral damage if an enemy destroys the communications system. Radar reflective camouflage netting can help mask electromagnetic signature at from the back and sides of directional antennas.

2-136. *Electromagnetic masking* is the controlled radiation of electromagnetic energy on friendly frequencies in a manner to protect the emissions of friendly communications and electronic systems against enemy electromagnetic support measures/signals intelligence without significantly degrading the operation of friendly systems (JP 3-85). Electromagnetic decoys used for masking radiate at higher energy levels than normal communications to hide real transmission from enemy EW support and signals intelligence capabilities. (See ATP 3-12.3 for more information about electromagnetic masking.)

Training and Procedures for Countering Enemy Electromagnetic Attack

2-137. Knowing when the CAB is under electromagnetic attack may not be immediately apparent to those using the various networks and equipment. EP includes the application of training and procedures for countering enemy electromagnetic attack. Once the threat and vulnerability of friendly electronic equipment to enemy electromagnetic attack are identified, the commander takes appropriate actions to safeguard friendly combat capability from exploitation and attack. EP measures minimize the enemy's ability to find friendly transmitters, conduct signals intelligence, and electromagnetic attack operations successfully against the battalion. To protect friendly combat capabilities, units—

- Regularly brief CAB personnel on the EW threat.
- Ensure that they safeguard electronic system capabilities at all times.
- Coordinate and deconflict EMS usage.
- Know the full capabilities of the communication equipment so that when there is deviation, the user can begin corrective measures immediately.
- Provide training during routine home station planning and training activities on appropriate EP active and passive measures under normal conditions, conditions of threat electromagnetic attack, or otherwise degraded networks and systems.
- Understand the effects of electromagnetic pulse on electronic systems and plan for measures to protect.

SECTION IV – PLANNING AND PREPARATION

2-138. Planning and preparation for operations leads the CAB commander to make decisions during execution. At its core, decision-making is knowing if to decide, then when and what to decide. Decision-making includes understanding the consequences of decisions. The MDMP is an established and proven analytical process. This tool helps the CAB commander and staff to develop estimates and a plan. The MDMP drives preparation.

2-139. Since time is a factor in all operations, the commander and staff conduct a time analysis early in the planning process. The analysis helps them determine what actions they need to take and when to begin those actions to ensure forces are ready and in position before execution. The plan may require the commander to direct subordinates to start necessary movements; conduct task-organization changes; begin reconnaissance

and security operations; and execute other preparation activities before completing the plan. (See FM 3-96 and ADP 5-0 for additional information.)

PLANNING

2-140. *Planning* is the art and science of understanding a situation, envisioning a desired future, and determining effective ways to bring that future about (ADP 5-0). Planning includes two separate but interrelated components; a conceptual component and a detailed component. Successful planning requires the integration of both these components. Commanders and subordinate leaders within the CAB employ three methodologies for planning: the Army design methodology, the MDMP, and TLP. The CAB commander determines how much of each methodology to use based on the scope of the problem, familiarity with it, and the time available. Planning helps the CAB commander create and communicate a common vision between the staff, subordinate commanders and leaders, and unified action partners. Planning results in an order that synchronizes the action of forces in time, space, and purpose to achieve objectives and accomplish missions.

Note. The Army design methodology assists the CAB commander and staff in understanding ill-structured problems and developing operational approaches to manage or solve those problems (see ATP 5-0.1). TLP provide company commander and platoon leaders with a framework for planning and preparing for operations. (See ATP 3-20.15 and ATP 3-90.1.)

ROLE OF THE COMMANDER AND EXECUTIVE OFFICER

2-141. The CAB commander is in charge of the MDMP. From start to finish, the commander's personal role is central. The commander's participation in the process provides focus and guidance to the staff; however, there are responsibilities and decisions that are the commander's alone. The amount of direct involvement is driven by the time available, personal preferences, and the experience and accessibility of the staff. The less time available, the less experienced the staff, and the less accessible the staff, the greater the commander's involvement in the MDMP.

2-142. The CAB XO manages, coordinates, and disciplines the staff's work and provides quality control. The XO ensures the staff has the information, guidance from the commander, and facilities they need. As the senior knowledge management officer in the battalion, the XO directs the activities of each staff section and subordinate unit to integrate and synchronize knowledge and information management within the battalion. The XO establishes the battle rhythm within the battalion, determines planning timelines (the plan to plan) for the staff, establishes confirmation brief times and locations, enforces the information management plan, and provides any unique instructions needed to guide the staff in completing the MDMP.

2-143. The CAB commander deploys the battalion scout platoon and any other reconnaissance forces and surveillance assets, including attached signals intelligence and EW sensors, early in the planning process to facilitate information collection. The commander and staff ensure reconnaissance and security are continuous during planning, preparation, and execution of the mission. Information collected while conducting reconnaissance and security may result in initial plans or COAs being modified, or even discarded. Further, when the plan changes, the commander must modify the reconnaissance and security objective to support the new plan.

2-144. CCIRs and decision points (known as DPs) focus the staff's monitoring activities and prioritize the unit's collection efforts. IR concerning the enemy, terrain and weather, and civil considerations are identified and assigned priorities through reconnaissance and security. The S-3, in coordination with the S-2, uses friendly reports to coordinate other assessment-related IR. To prevent duplicated collection efforts, IR associated with assessing the operation are integrated into the reconnaissance and security plan and friendly force IR.

2-145. Reconnaissance and security assist significantly in developing COAs during the planning process. Conducted early, reconnaissance and security help confirm or deny the commander's initial assessment. Information also may allow the commander to focus immediately on a specific COA or to eliminate COAs that reconnaissance and security show to be infeasible.

2-146. When conducting reconnaissance and security, the commander must determine if the benefits outweigh the risks. During the conduct of defensive operations and operations in support of stability operations tasks, reconnaissance and security often can be conducted with little risk. During the conduct of offensive operations, reconnaissance and security involve more risk.

2-147. When the commander deploys reconnaissance and security capabilities, planning guidance must be given to ensure the survival of the force and assets while still enabling mission accomplishment. At a minimum, this guidance will include—

- Recon and security guidance.
- Decision support matrix.
- Information collection matrix.
- Role or relationship between reconnaissance units outside the CAB.
- Mission statement to include eyes-on-target time and anticipated length of mission.
- PIR.
- Enemy situation in the AO.
- Commander's intent for intelligence, which can be stated by the S-2 or S-3.
- Method of deployment and insertion with abort criteria. Coordination time and place are included, if applicable.
- Fire support plan to include assets available and restrictive fire support coordination measures (FSCMs).
- Communication plan (PACE).
- CASEVAC plan.
- Exfiltration plan.
- Resupply plan (ground and aerial).

PARALLEL, COLLABORATIVE, AND DISTRIBUTED PLANNING

2-148. Whether planning deliberately or rapidly, all planning requires the skillful use of available time to optimize planning and preparation throughout the battalion. Taking more time to plan often results in greater synchronization; however, any delay in execution risks yielding the initiative—with more time to prepare and act—to the enemy. When allocating planning time to company commanders, the CAB commander must ensure subordinates have enough time to plan and prepare their own actions prior to execution.

Parallel Planning

2-149. *Parallel planning* is two or more echelons planning for the same operations nearly simultaneously facilitated by the use of warning orders by the higher headquarters (ADP 5-0). Parallel planning requires significant interaction between the BCT and CAB staff and can happen only when higher headquarters produces timely WARNORDs and shares information with subordinate headquarters as it becomes available. The use of LNOs from the CAB to the BCT staff for facilitating the information flow required for effective parallel planning. By issuing guidance and participating in formal and informal briefings, the CAB commander and XO guide the staff through the MDMP. (See figure 2-2.)

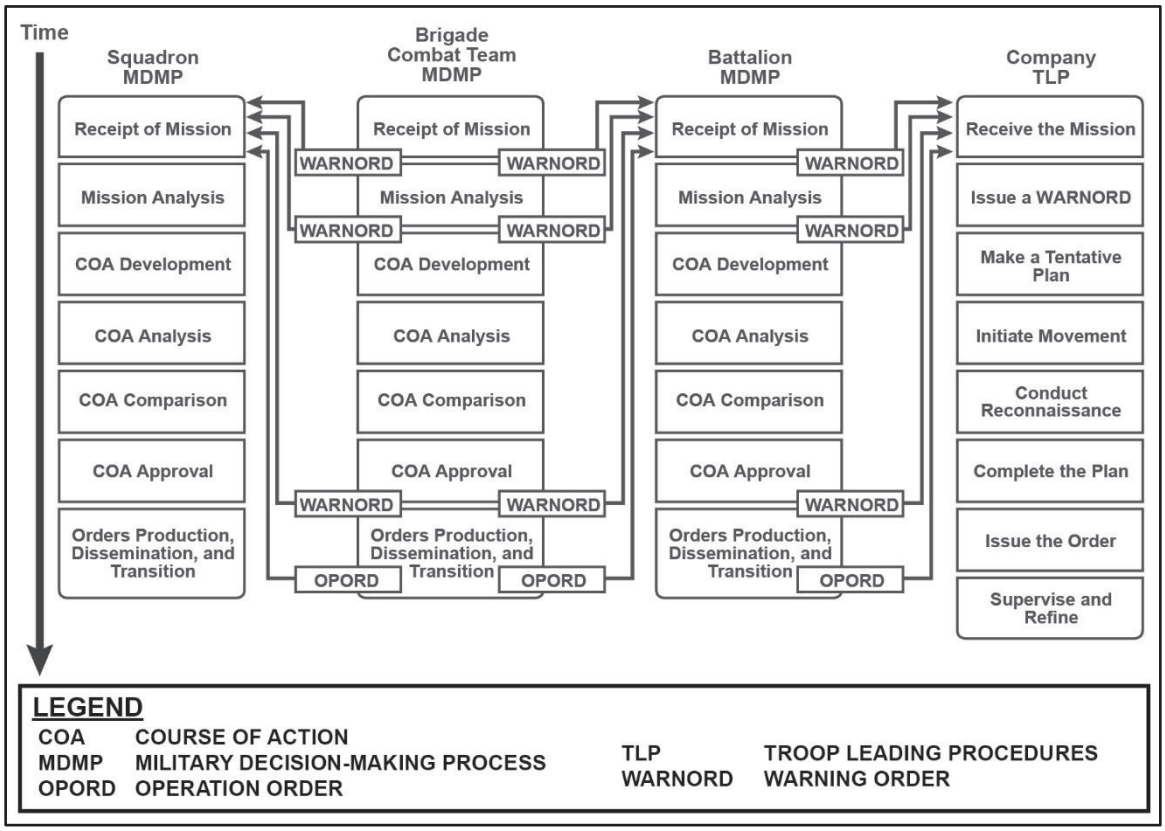


Figure 2-2. Parallel planning

Collaborative Planning

2-150. *Collaborative planning* is two or more echelons planning together in real time, sharing information, perceptions, and ideas to develop their respective plans simultaneously (ADP 5-0). Collaborative planning is the real-time, judiciously used, interaction among commanders and staffs at two or more echelons developing plans for a single operation. In terms of the CAB, this may be upward to the brigade or down to the companies.

2-151. Collaborative planning is most appropriate when time is scarce and a limited number of options are being considered. It is particularly useful when the commander and staff can benefit from the input of subordinate commanders and staffs.

2-152. Collaborative planning is not appropriate when the staff is working a large number of COAs or branches and sequels, many of which will be discarded. In this case, involving subordinates wastes precious time working options that are later discarded. Collaborative planning also is often not appropriate during ongoing operations in which extended planning sessions take commanders and staffs away from conducting current operations.

2-153. As a rule of thumb, if the commander is directly involved in time-sensitive planning, some level of collaborative planning probably is needed. The commander, not the staff, makes the decision whether or not to conduct collaborative planning, as only the commander can commit subordinate commanders to using their time for collaborative planning.

Distributed Planning

2-154. Digital communications and information systems enable members of the same staff to execute the MDMP without being co-located. Distributed planning saves time and increases the accuracy of available

information as it allows for the rapid transmission of voice and data information, which can be used by staffs over a wide geographical area.

INTEGRATING PROCESSES AND CONTINUING ACTIVITIES

2-155. Throughout the operations process, the CAB commander and staff integrate warfighting functions to synchronize the force per the commander's intent and concept of operations. Integrating processes and continuing activities, used throughout the process, assist in synchronizing CAB operations.

Integrating Processes

2-156. In addition to the major activities of the operations process, the commander and staff use several integrating processes to synchronize specific functions throughout the operations process. The integrating processes are—

- IPB.
- Information collection.
- Targeting.
- Risk management.
- Knowledge management.

Intelligence Preparation of the Battlefield

2-157. *Intelligence preparation of the battlefield* is the systematic process of analyzing the mission variables of enemy, terrain, weather, and civil considerations in an area of interest to determine their effect on operations (ATP 2-01.3). Led by the battalion S-2, the entire staff participates in the IPB to develop and sustain an understanding of the enemy, terrain and weather, and civil considerations. IPB helps identify options available to friendly and threat forces.

2-158. The IPB process includes the following four steps:

- Define the operational environment.
- Describe environmental effects on operations.
- Evaluate the threat.
- Determine threat COAs.

Note. Although there are four steps to the IPB process, it is important to note that IPB is a continuous process. Continuous analysis and assessment are necessary to maintain situational understanding of an operational environment in constant flux.

2-159. IPB supports all activities of the operations process. IPB identifies gaps in current intelligence. IPB products help the commander and staff, and subordinate commanders and leaders understand the threat, physical environment, and civil considerations throughout the operations process. (See ATP 2-01.3 for additional information.)

Information Collection

2-160. Information collection helps the commander understand and visualize the operation by identifying gaps in information. *Information collection* is an activity that synchronizes and integrates the planning and employment of sensors and assets as well as the processing, exploitation, and dissemination systems in direct support of current and future operations (FM 3-55).

Note. For more detailed information on information collection, refer to chapter 7.

2-161. Information collection integrates the functions of the intelligence and operations staffs that focus on answering CCIRs. Information collection includes acquiring information and providing it to processing elements. It has three steps:

- Collection management.
- Task and direct collection.
- Execute collection.

Targeting

2-162. *Targeting* is the process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities (JP 3-0). Targeting personnel within the battalion identify critical target subsets that, when successfully acquired and attacked, significantly diminish enemy capabilities. The CAB commander synchronizes combat power to attack and eliminate critical target(s) using the most effective system in the right time and place.

2-163. Targeting is a complex and multidisciplinary effort that requires coordinated interaction among many command and staff elements within and external to the CAB. The functional and integrating cell members within the CAB necessary for effective collaboration are represented in the targeting working group. Close coordination among all cells is crucial for a successful targeting effort. Sensors and collection capabilities under the control of external agencies must be closely coordinated and carefully integrated into the execution of attacks especially those involving rapidly moving, fleeting, or dangerous targets. In addition, the appropriate means and munitions must attack the vulnerabilities of different types of targets. (See ATP 3-60 for additional information.)

Commander's Targeting Guidance

2-164. The commander's targeting guidance is articulated clearly and simply to enhance understanding. Targeting guidance focuses on essential threat capabilities and functions that could interfere with achievement of the battalion's objectives. The commander's targeting guidance describes the desired effects to be generated by fires, physical attack, cyberspace electromagnetic activities, and other information related capabilities against threat operations. Targeting enables the CAB commander through various lethal and nonlethal capabilities the ability to produce the desired effects. Capabilities associated with one desired effect may also contribute to other desired effects. For example, delay can result from disrupting, diverting, or destroying enemy capabilities or targets. (See ATP 3-60 for a complete listing of desired effects.) The commander can also direct a variety of nonlethal actions or effects separately or in conjunction with lethal actions or effects.

2-165. The targeting process supports the CAB commander's decision-making with a comprehensive, iterative, and logical methodology for employing the ways and means to create desired effects that support achievement of objectives. Once actions are taken against targets, the commander and staff assess the effectiveness of the actions. If there is no evidence that the desired effects were created, reengagement of the target may be necessary, or another method selected to create the desired effects.

Targeting Categories

2-166. The targeting process can be generally grouped into two categories: deliberate and dynamic (see figure 2-3 on page 2-32). Deliberate targeting prosecutes planned targets. These targets are known to exist in the AO and have actions scheduled against them. Examples range from targets on target lists in the applicable plan or order, targets detected in sufficient time to place in the joint air tasking cycle, mission type orders, or fire support plans. *Dynamic targeting* is targeting that prosecutes targets identified too late, or not selected for action in time to be included in deliberate targeting (JP 3-60). Targets of opportunity are targets identified too late, or not selected for action in time, to be included in deliberate targeting. Targets engaged as part of dynamic targeting are previously unanticipated, unplanned, or newly detected.

2-167. The two types of planned targets are scheduled and on-call:

- Scheduled targets exist in the AO and are located in sufficient time so that fires or other actions upon them are identified for engagement at a specific, planned time.

- On-call targets have actions planned, but not for a specific delivery time. The commander expects to locate these targets in sufficient time to execute planned actions.

2-168. The two types of targets of opportunity are unplanned and unanticipated:

- Unplanned targets are known to exist in the AO, but no action has been planned against them. The target may not have been detected or located in sufficient time to meet planning deadlines. Alternatively, the target may have been located, but not previously considered of sufficient importance to engage.
- Unanticipated targets are unknown or not expected to exist in the AO.

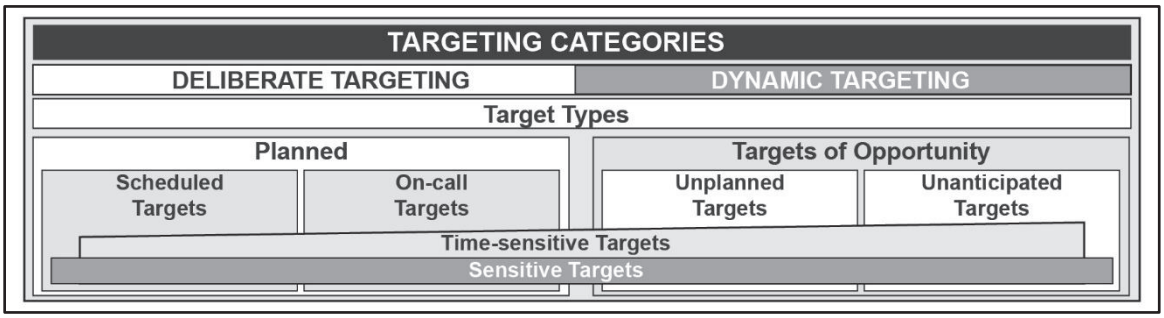


Figure 2-3. Targeting categories

Targeting Methodology

2-169. Targeting and the decide, detect, deliver, and assess (D3A) methodology is designed to be performed by the CAB commander's staff in planning the engagement of targets. The D3A methodology organizes the efforts of the CAB commander and staff to accomplish key targeting requirements. Targeting is an outgrowth of the CAB commander's decisions and establishes the requirements for the development of an effective information and intelligence collection effort. The D3A methodology helps the staff and targeting working group decide which targets must be acquired and engaged. Targeting develops options used to engage targets. Options can be lethal or nonlethal, organic or supporting at all levels throughout the range of military operations as listed—maneuver, electromagnetic attack, psychological, attack aircraft, surface-to-surface fires, air to surface, other information related capabilities, or a combination of these operations. In addition, D3A assists in the decision of who will engage the target at the prescribed time. It also assists targeting working groups determine requirements for combat assessment to assess targeting and attack effectiveness. (See ATP 3-60 for additional information.) The four functions of D3A are listed below:

- Decide which targets to engage.
- Detect the targets.
- Deliver the appropriate effects (conduct the operation).
- Assess the effects of the engagement(s).

Risk Management

2-170. Risk management is the Army's process for helping organizations and individuals make informed decisions to reduce or offset risk. Using this process increases the force's operational effectiveness and the probability of mission accomplishment. This systematic approach identifies hazards, assesses them, and manages associated risks. Risk management outlines a disciplined approach to express a risk level in terms readily understood at all echelons. (See ATP 5-19.)

Principles of Risk Management

2-171. The principles of risk management consist of four elements. The four elements are—

- Integrate risk management into all phases of missions and operations.
- Make risk decisions at the appropriate level.
- Accept no unnecessary risk.

- Apply risk management cyclically and continuously.

Five-Step Process

2-172. Risk management is a cyclical and continuous five-step process to identify and assess hazards; develop, choose, implement, and supervise controls; and evaluate outcomes as conditions change. Except in time-constrained situations, planners complete the process in a deliberate manner—systematically applying all the steps and recording the results. In time-constrained conditions, the commander, staff, subordinate leaders, and Soldiers use judgment to apply risk management principles and steps. The five steps of risk management are—

- Step 1 – Identify the hazards.
- Step 2 – Assess the hazards.
- Step 3 – Develop controls and make risk decisions.
- Step 4 – Implement controls.
- Step 5 – Supervise and evaluate.

Linkage to Operations Process

2-173. The five steps of risk management follow a logical sequence that correlates with the battalion's operations process activities. Steps 1 and 2 normally have greatest emphasis in the planning activities for the operation. Step 3 normally begins in planning and continues throughout the preparing activities for the operation. The majority of step 4 normally occurs within the preparing and executing activities for the operation, with some continuing emphasis in planning. Step 5 normally occurs during executing with some continuing emphasis in planning. The assessment activity of the operations process is continuous.

2-174. DD Form 2977 (*Deliberate Risk Assessment Worksheet*) is the Army's standard form for deliberate risk assessment and captures the information analyzed during the five steps of risk management and the operations process. Commander and staff use the form to track hazards and risks in a logical manner to help users in thinking through the five steps and then sharing the resulting assessment. For example, weather conditions can create specific hazards and risks during operations. Common weather hazards to assess are cold, ice, snow, rain, fog, heat, humidity, wind, dust, visibility, and illumination. (See ATP 5-19 for a detailed discussion on the analysis of risk.)

Note. DD Form 2977 is a living document. Pen and pencil changes on hard copies are acceptable and encouraged since changes will occur during operations. Aviation, explosive, CBRN, and other highly technical activities may require additional specialized documentation.

Knowledge Management

2-175. *Knowledge management* is the process of enabling knowledge flow to enhance shared understanding, learning, and decision making (ADP 6-0). It facilitates the transfer of knowledge among commanders, staffs, and forces to build and maintain situational understanding. Knowledge management helps get the right information to the right person at the right time to facilitate decision making. (See ATP 6-01.1 for a detailed discussion on knowledge management.) Knowledge management uses a five-step process to create shared understanding—

- Assess.
- Design.
- Develop.
- Pilot.
- Implement.

RUNNING ESTIMATE

2-176. A *running estimate* is the continuous assessment of the current situation used to determine if the current operation is proceeding according to the commander's intent and if planned future operations are

supportable (ADP 5-0). The commander and each staff element maintain a running estimate. A highly effective technique is to organize the running estimates by warfighting function. Doing this ensures a better understanding for the commander and staff of how the current operation(s) impacts the various tasks and systems of each function. The designated leader of each warfighting function is responsible for maintaining and updating the respective running estimate. The commander maintains a running estimate to consolidate understanding and visualization of the operation. The commander's running estimate summarizes the problem and integrates information and knowledge of each staff's running estimate. In their running estimates, the commander and each staff element continuously consider the effects of new information and update the following:

- Facts.
- Assumptions.
- Constraints (limitations and restraints).
- Friendly force status.
- Enemy activities and capabilities.
- Civil considerations.
- Conclusions and recommendations.

2-177. Running estimates help the staff to track and record pertinent information and provide recommendations to the commander. Running estimates represent the analysis and expert opinion of each staff element by functional area. Staffs maintain running estimates throughout the operations process to assist commanders in the exercise of mission command. Each staff element and CP functional cell maintains a running estimate focused on how its specific areas of expertise are postured to support future operations. Because an estimate may be needed at any time, running estimates must be developed, revised, updated, and maintained continuously during operations. Running estimates can be presented verbally or in writing. Running estimates are critical to facilitate planning in a time-constrained environment. (See FM 6-0 for a detailed discussion on running estimates.)

2-178. The exact format for a running estimate is entirely based upon the planning SOP of the CAB or as per the CAB commander's preference. The staff considers how the running estimate will be utilized—

- Staff section personnel only.
- Display purposes within the CP.
- Briefing or presentation purposes to the XO or CAB commander.
- A combination of the above.

2-179. When used during a mission analysis briefing, consideration should be given as to the level of detail shown, as excess verbiage may overwhelm whoever is receiving the briefing. This does not mean though that the staff section or functional cell does not attempt to identify all data applicable to the respective section or cell.

COMMANDER'S INTENT

2-180. The commander's visualization is the mental process of developing situational understanding, determining a desired end state, and envisioning how the force will achieve that end state. Commanders summarize their visualization in their intent statement. The *commander's intent* is a clear and concise expression of the purpose of the operation and the desired military end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders act to achieve the commander's desired results without further orders, even when the operation does not unfold as planned (JP 3-0). The commander's intent should be clear, easy to remember, and easy to understand down to the platoon level. Because the enemy can be unpredictable and not constrained to friendly parameters, the commander's intent should allow subordinate leaders to exercise their initiative in the face of adverse tactical situations.

2-181. The CAB commander relies on professional training and tactical experience to develop the intent. Of all the activities required of a CAB commander, visualizing an operation from start to finish and describing that visualization to the staff and company commanders are the most critical. When possible, the commander delivers the intent personally. Face-to-face delivery ensures mutual understanding of what the commander

wants by allowing immediate clarification of specific points. The CAB commander's intent can be summarized as—

- The purpose of the operation (the why).
- What key tasks the CAB must accomplish.
- The end state as it pertains to:
  - Friendly forces.
  - Enemy.
  - Terrain.
  - Civil considerations.

2-182. The commander's intent is critical to mission accomplishment. The military designs and executes its operations around the commander's intent:

- The commander develops the intent and concept of the operation within the framework of the higher commander's intent.
- During planning, the commander's intent drives the MDMP.
- Subordinates use the commander's intent to decide what to do when facing unforeseen opportunities and threats, and in situations where the concept of operations no longer applies.
- During execution, staffs work within the commander's intent to direct units and control resource allocations.

2-183. Operating in an environment that is susceptible to the disruption of digital systems, or communication entirely, the commander's intent is what will drive the CAB staff and companies in the decisions they may need to make in the absence of direct communication with the CAB commander. Therefore, it is imperative that the commander's intent be known and understood by all leaders within the CAB, regardless of rank.

MILITARY DECISION-MAKING PROCESS

2-184. The *military decision-making process* is an iterative planning methodology to understand the situation and mission, develop a course of action, and produce an operation plan or order (ADP 5-0). The MDMP helps the commander and staff to apply thoroughness, clarity, sound judgment, logic, and professional knowledge to understand situations, develop options to solve problems, and reach decisions. The process helps the commander, staff, and others think critically and creatively throughout the planning process.

2-185. During the MDMP, the higher headquarters solicits input and continuously shares information concerning future operations through planning meetings, WARNORDs, and other knowledge management and information management means. The process enables the sharing of information with subordinate and adjacent units, supporting and supported units, and unified action partners.

2-186. The MDMP is used by the CAB commander and staff to develop and thoroughly examine numerous friendly and enemy COAs. Based on the commander's visualization, the MDMP can be adjusted to meet the current situation. The commander and staff typically conduct this examination when developing the commander's visualization, when planning for an entirely new mission, and during extended operations. The MDMP can be performed slowly and deliberately or rapidly with heavy commander involvement.

2-187. The MDMP has seven steps. Each step (process) builds on the outputs from the previous steps. Each step then produces its own output that drives subsequent steps. Errors committed early in the process, especially with a faulty mission analysis, affect later steps. Figure 2-4a on page 2-36 and figure 2-4b on page 2-37 provide an overview of the MDMP. (See FM 6-0 for additional information.)

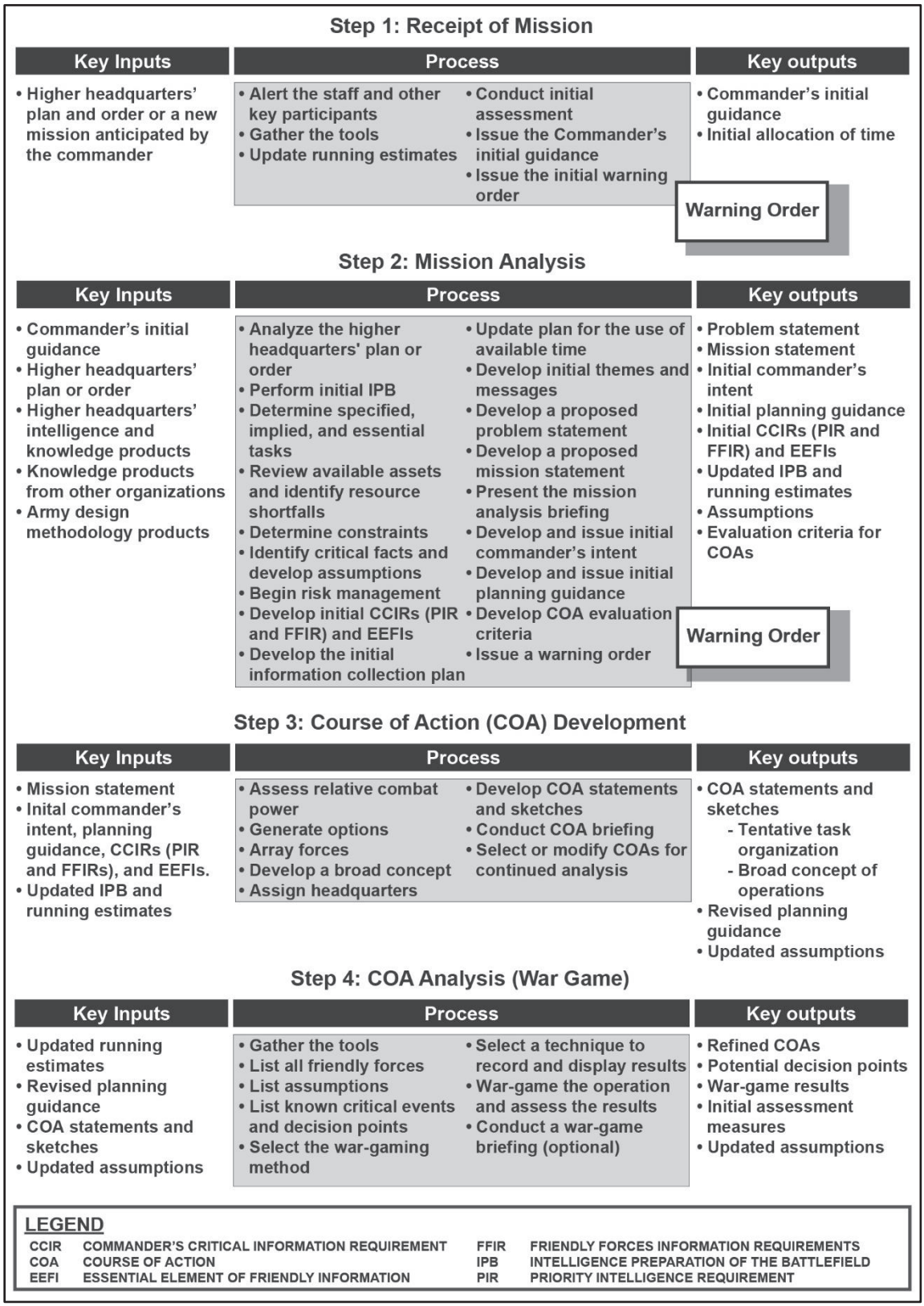


Figure 2-4a. Military decision-making process overview

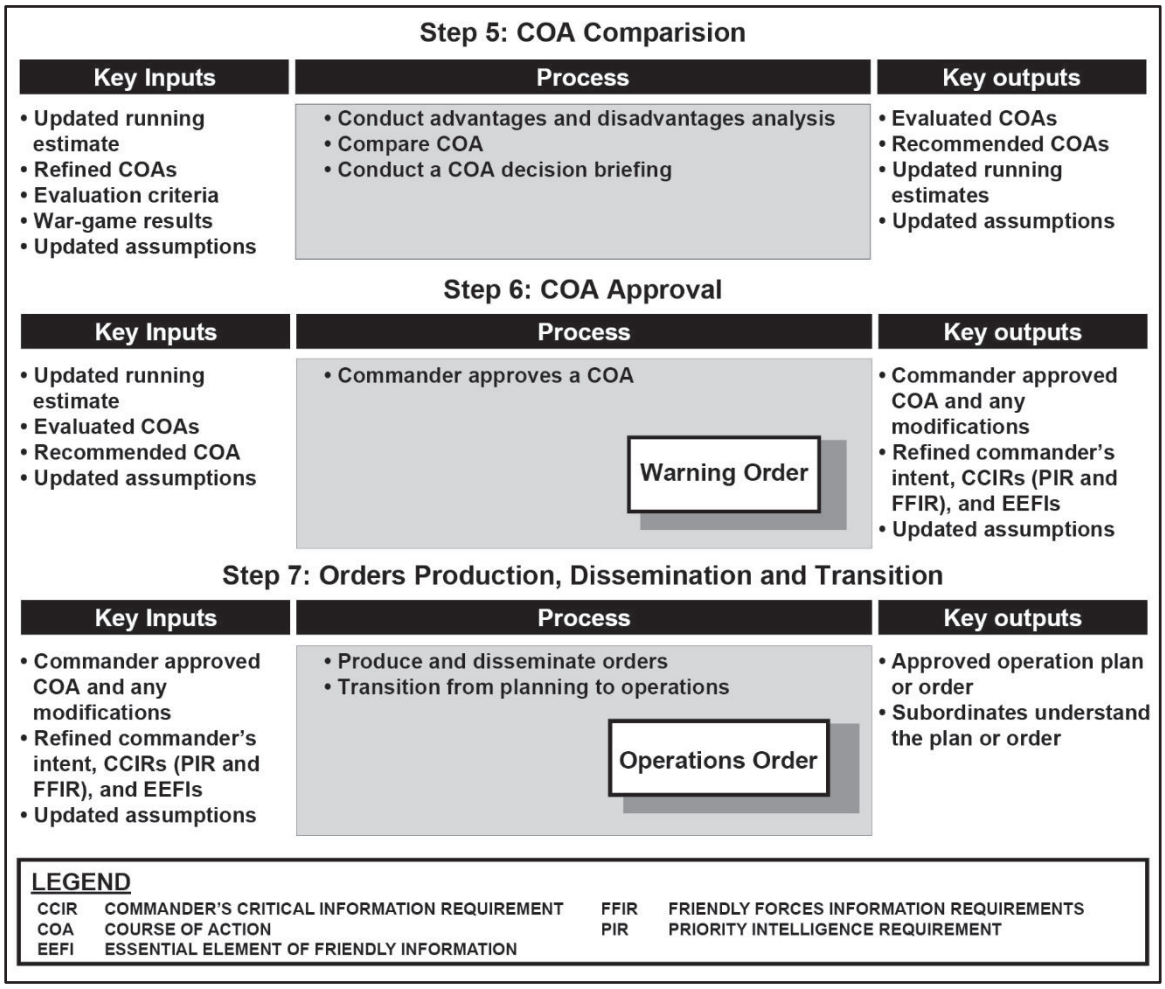


Figure 2-4b. Military decision-making process overview (continued)

PLANNING IN A TIME-CONSTRAINED ENVIRONMENT

2-188. Any planning process aims to quickly develop a flexible, sound, and fully integrated and synchronized plan. However, any operation may "outrun" the initial plan. The most detailed estimates cannot anticipate every possible branch or sequel, enemy action, threat action, or reaction from the local population, unexpected opportunity, or change in mission directed from higher headquarters. Unexpected enemy action may require a quick decision to reframe the problem and implement a new or modified plan. Fleeting opportunities or unexpected enemy action may require a quick decision to implement a new or modified plan. When this occurs, the CAB staff and subordinate companies often find themselves pressed for time in developing a new plan.

2-189. Before the CAB can conduct decision-making in a time-constrained environment, it must train on, and master, all of the steps in the MDMP. The CAB only can abbreviate the MDMP if it fully understands the role of each step of the process and the requirements to produce the necessary products. Training on these steps must be thorough and result in a series of staff battle drills tailored to the time available. Training on the MDMP must be stressful and replicate realistic conditions and timelines. There is only one process, and omitting steps of the MDMP to meet time constraints is not the solution, though they may be done in a shortened timeframe. Anticipation, organization, and prior preparation are the keys to success in a time-constrained environment. Well-trained staffs will know where they can abbreviate actions and planning, focusing on only the most critical factors.

2-190. The commander and staff can use the time saved on any step of the MDMP to—

- Refine the plan more thoroughly.
- Conduct a more deliberate and detailed wargame.
- Consider potential branches and sequels in detail.
- Focus more on rehearsing and preparing the plan.
- Allow subordinate units more planning and preparation time.

2-191. The CAB abbreviates the MDMP when there is too little time for a thorough and comprehensive application of the process. The most significant factor to consider is time. It is the only nonrenewable resource and often the most critical one. Due to the rapid nature of a decisive action environment, abbreviating the MDMP may be the commander and staff's most effective means by which to develop orders for the CAB. Below are techniques for abbreviating the MDMP:

- Increase the CAB commander's involvement, allowing time to make decisions without waiting for detailed briefings after each step.
- Limit options. When the commander is more prescriptive, it saves the staff time by allowing it to focus more closely.
- Maximize parallel planning. Although parallel planning should be normal during the MDMP, maximizing its use in a time-constrained environment is critical.
- Limit the number of COAs. If the commander conducts a personal assessment and chooses a COA, the commander can direct the staff to refine only that one COA. This technique normally saves the most time, though is highly dependent on the commander having an accurate grasp of the relevant tactical situation facing the battalion.

2-192. In a time-constrained environment, the importance of WARNORDs increases as available time decreases; a verbal WARNORD now, followed by a written order later, is worth more than a written order one hour from now. The same WARNORDs used in the MDMP should be issued when abbreviating the process. In addition to WARNORDs, units must share all available information (particularly IPB products), with subordinates as soon as possible. Information systems greatly increase this sharing of information and the commander's visualization through collaboration with their subordinates.

2-193. While the steps used in a time-constrained environment are the same, many of them may be done mentally by the CAB commander or with less staff involvement than during the MDMP. The products developed when the process is abbreviated may be the same as those developed for the MDMP; however, they may be much less detailed and some may be omitted altogether. CAB planning SOPs and mission requirements tailor this process to the commander's preference for orders in this environment.

RAPID DECISION-MAKING AND SYNCHRONIZATION PROCESS

2-194. The rapid decision-making and synchronization process is a technique used during execution. While the MDMP seeks the optimal solution, the rapid decision-making and synchronization process seeks a timely and effective solution within the commander's intent, mission, and concept of operations. While identified here with a specific name and method, the commander and staff develop this capability through training and practice. When using this technique, the following considerations apply:

- Rapid is often more important than process.
- Much of it may be mental rather than written.
- It should become a battle drill for the current operations cell.

2-195. Using the rapid decision-making and synchronization process lets leaders avoid the time-consuming requirements of developing decision criteria and comparing COAs. As operational and mission variables change during execution, this often invalidates or weakens COAs and decision criteria before leaders can make a decision. Under the rapid decision-making and synchronization process, leaders combine their experience and intuition to quickly reach situational understanding. Based on this, they develop and refine workable COAs.

2-196. The rapid decision-making and synchronization process facilitates continuously integrating and synchronizing the warfighting functions to address ever-changing situations. This process meets the following criteria for making effective decisions during execution:

- It is comprehensive, integrating all warfighting functions. It is not limited to any one warfighting function.
- It ensures all actions support the decisive operation by relating them to the commander's intent and concept of operations.
- It allows rapid changes to the order or mission.
- It is continuous, allowing commanders to react immediately to opportunities and threats.

2-197. The rapid decision-making and synchronization process is based on an existing order and the commander's priorities as expressed in the order. The most important of these control measures are the commander's intent, concept of operations, and CCIRs. The rapid decision-making and synchronization process includes five steps (see figure 2-5). The first two may be performed in any order, including concurrently. The last three are performed interactively until commanders identify an acceptable COA. (See FM 6-0 for additional information.)

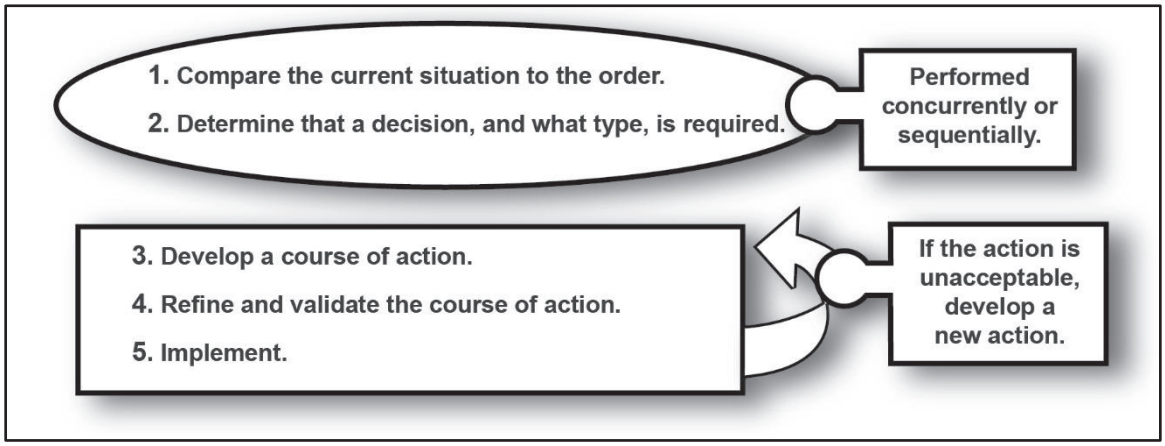


Figure 2-5. Rapid decision-making and synchronization process

INTELLIGENCE PREPARATION OF THE BATTLEFIELD AND THE MILITARY DECISION-MAKING PROCESS

2-198. During planning, the CAB commander focuses activities on understanding, visualizing, and describing, while directing and assessing. The IPB is one of the processes the commander uses to aid in planning (see ATP 2-01.3). Figure 2-6 on page 2-40 shows the relationship between IPB and the steps of MDMP along with key inputs and outputs during the process. The IPB supports the MDMP methodology integrating the activities of the commander, staff, subordinate units, and other partners to—

- Understand the situation and mission.
- Develop and compare COAs.
- Decide on a COA that best accomplishes the mission.
- Produce an OPORD for execution.

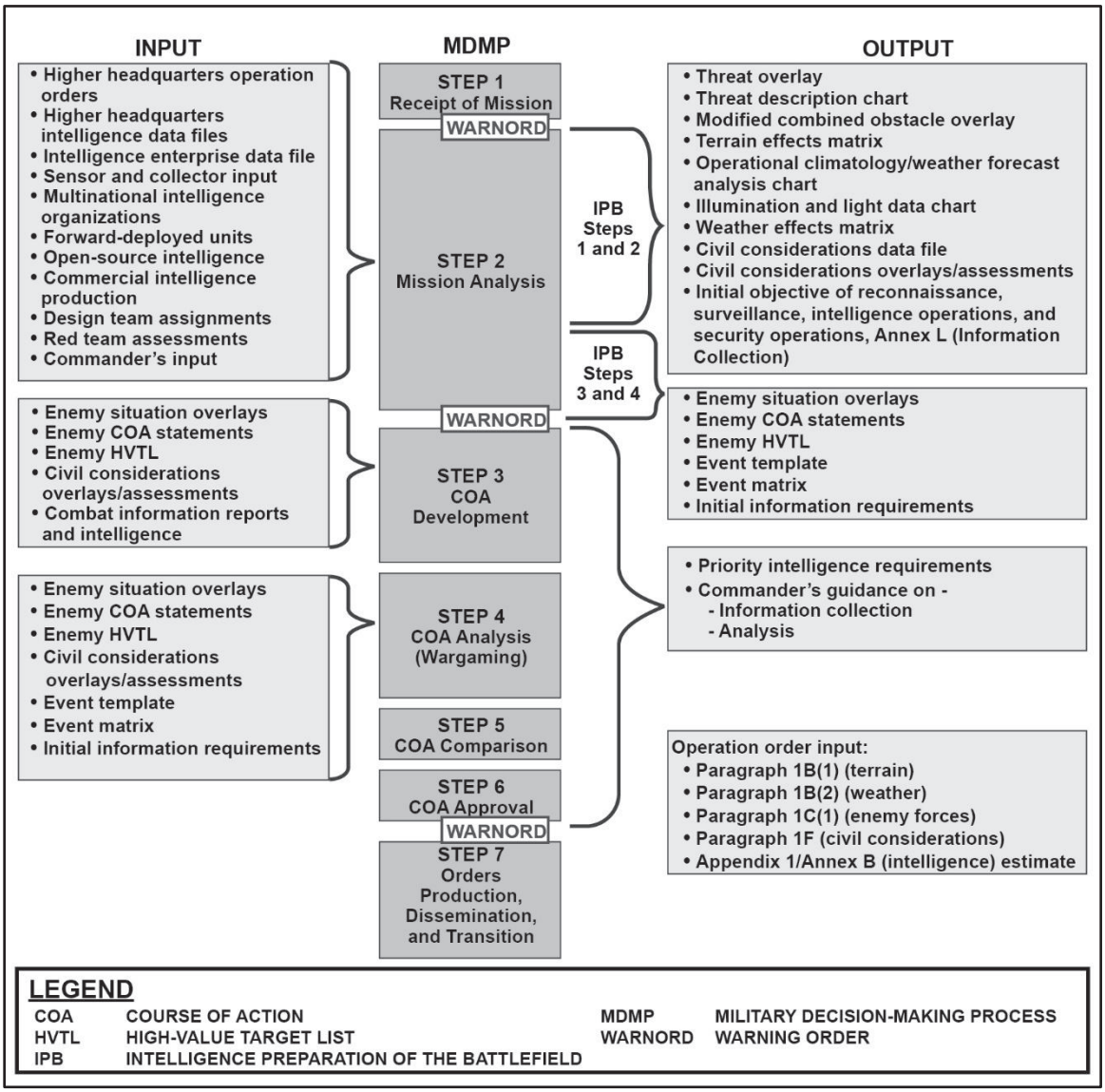


Figure 2-6. Intelligence preparation of the battlefield and the military decision-making process

TARGETING AND THE MILITARY DECISION-MAKING PROCESS

2-199. Targeting methodology is an integral part of the MDMP. Targeting begins with the receipt of the mission and continues through the operations process's execution and assessment phases. Like MDMP, targeting is a commander-driven process. As the MDMP is conducted, targeting becomes more focused based on the commander's guidance and intent. Figure 2-7 illustrates the relationship between the targeting methodology D3A and the MDMP along with products generated during targeting.

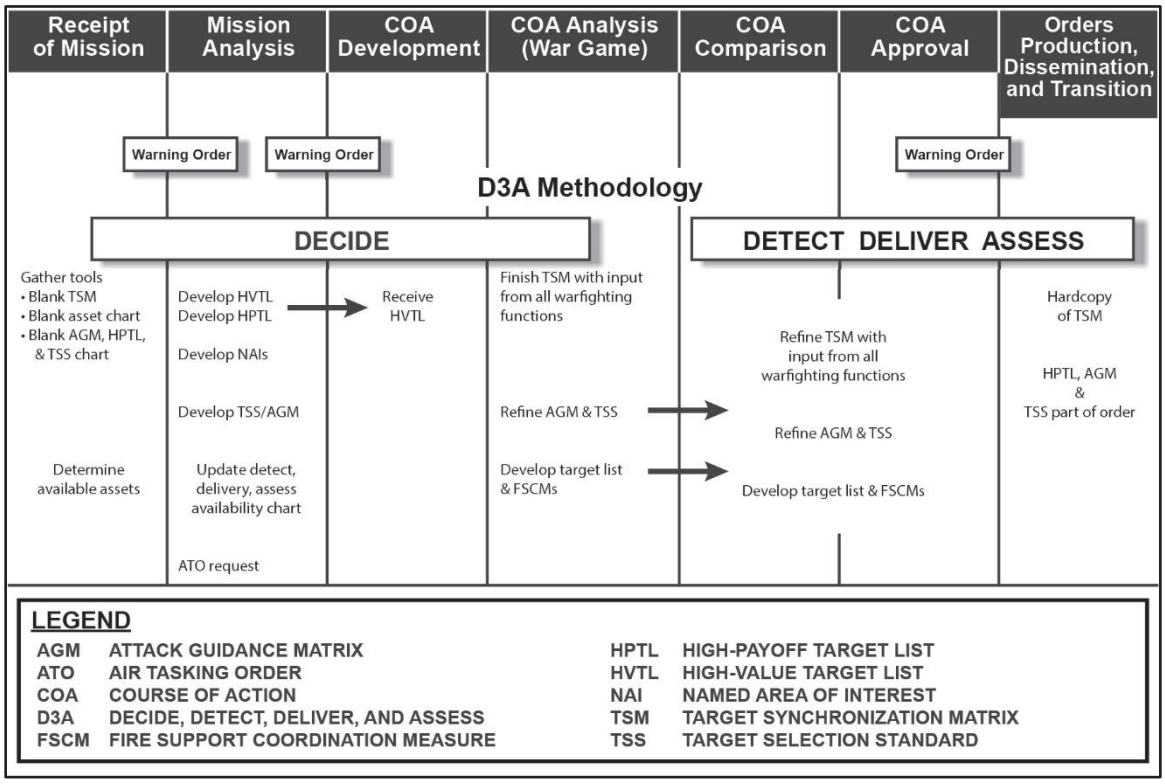


Figure 2-7. Targeting methodology and the military decision-making process

2-200. The decide function coincides with the MDMP from the receipt of mission through the issuing of the approved plan or order. The detect function is a continuing function that starts with the commander's approval of the plan or order and is accomplished during execution of the plan or order. Once detected, targets are attacked and assessed as required. Targeting working groups are used as a vehicle to focus the targeting process within specified time.

2-201. D3A methodology functions occur simultaneously and sequentially during the operations process. Decisions are made during the planning of future operations. Current operations simultaneously detect, deliver, and assess targets based on current targeting decisions. (See chapter 8 for more information on targeting.)

Risk Management and the Military Decision-Making Process

2-202. The commander and staff use risk management to identify, assess, and control hazards, reducing their effect on operations and readiness. The five steps of risk management tend to require emphasis at different times during the MDMP. While planning doctrine places the beginning of formal risk management in mission analysis, the commander and staff can begin identifying hazards upon receipt of the OPORD. For example, when conducting unilateral and partnered operations and training it is important for the commander to assess early in the process the potential risk for an insider attack.

Note. The representation in table 2-2 on page 2-42 is not intended to be prescriptive. Risk management is an adaptable integrating process. The five steps are dynamic and cyclical.

Table 2-2. Risk management and the military decision-making process

Risk Management Steps					
Steps in the Military Decision-making Process	***Identify the Hazards***	***Assess the Hazards***	***Develop Controls and Make Risk Decisions***	***Implement Controls***	***Supervise and Evaluate***
RECEIPT OF MISSION	X				
MISSION ANALYSIS	X	X			
COURSE OF ACTION DEVELOPMENT	X	X	X		
COURSE OF ACTION ANALYSIS		X	X		
COURSE OF ACTION COMPARISON			X		
COURSE OF ACTION APPROVAL			X		
ORDERS PRODUCTION, DISSEMINATION, AND TRANSITION	X	X	X	X	X

PREPARATION

2-203. *Preparation* consists of those activities performed by units and Soldiers to improve their ability to execute an operation (ADP 5-0). Preparations require the CAB commander, staff, company, platoon, and Soldier actions to ensure the battalion is trained, equipped, and ready to execute operations. Preparations help those involved to understand the situation and their roles in upcoming operations. Commander-driven key preparation activities (although not inclusive) are addressed in the following paragraphs. (See ADP 5-0 for a complete listing of preparation activities.)

INITIATE INFORMATION COLLECTION

2-204. FM 3-55 describes an information collection capability as any human or automated sensor, asset, or processing, exploitation, and dissemination (PED) system that can be directed to collect information that enables better decision-making, expands understanding of the operational environment, and supports warfighting functions in decisive action.

2-205. Information collection highlights aspects that influence how the CAB operates as a ground force in close and continuous contact with the environment, including the enemy, terrain and weather, and civil considerations. Information collection involves the acquisition of information and the provision of this information to processing elements and includes the following tasks:

- Collection management.
- Task and direct collection.
- Execute collection.

Collection Management

2-206. Collection management is the task of analyzing requirements, evaluating available assets (internal and external), recommending to the operations staff taskings for information collection assets, submitting requests for information for adjacent and higher collection support, and assessing the effectiveness of the information collection plan. It is a commander-driven, coordinated staff effort led by the CAB S-2. The continuous functions of collection management identify the best way to satisfy the requirements of the

commander and staff. These functions are not necessarily sequential. (ATP 2-01 discusses the planning requirements and assessing collection functions.)

Task and Direct Collection

2-207. The S-3 (based on recommendations from the staff) tasks, directs, and, when necessary, retasks the information collection assets. Organic to the CAB, available collection assets include the scout platoon and the Raven small UAS. Tasking and directing of these limited information collection assets are vital to their control and effective use. The staff tasks information collection assets by issuing WARNORDs, FRAGORDs, and OPORDs. It accomplishes directing information collection assets by continuously monitoring the operation. The staff conducts retasking to refine, update, or create new requirements. (See FM 3-55.)

Execute Collection

2-208. Executing collection focuses on requirements tied to the execution of tactical missions. Typically, collection activities begin soon after receipt of mission and continue throughout preparation for and execution of the operation. Collection activities do not cease at the conclusion of the mission but continue as required. This allows the commander to focus combat power, execute current operations, and prepare for future operations simultaneously. (See FM 3-55.)

CONDUCT CONFIRMATION BRIEFS

2-209. The confirmation brief is a key part of preparation. A *confirmation brief* is a brief subordinate leaders give to the higher commander immediately after the operation order is given to confirm understanding (ADP 5-0). It demonstrates the leaders' understanding of the commander's intent, their specific tasks, and the relationship between their mission and the other units in the operation. A confirmation brief assures the CAB commander that subordinate commanders understand—

- The commander's intent, mission, and concept of operations.
- Their unit's tasks and associated purposes.
- The relationship between their unit's mission and those of other units in the operation.

Note. Ideally, the commander conducts confirmation briefs in person with selected staff members of the higher headquarters present.

2-210. The CAB commander can receive the confirmation brief individually from each company commander and attached element or collectively from those same leaders. Individual backbriefs allow CAB commanders to focus on each subordinate commander's understanding of the given mission with less concern of that subordinate commander being influenced by comments from peers. However, this technique may take more time than a collective confirmation brief.

CONDUCT REHEARSALS

2-211. A *rehearsal* is a session in which the commander and staff or unit practices expected actions to improve performance during execution (ADP 5-0). The CAB commander uses this tool to ensure the staff and company commanders understand the concept of operations and commander's intent. Rehearsals also allow company commanders and leaders to practice synchronizing operations at times and places critical to mission accomplishment. Effective rehearsals imprint a mental picture of the sequence of the operation's key actions and improve mutual understanding and coordination of subordinate commanders and supporting leaders and units. The extent of rehearsals depends on available time. In cases of short-notice requirements, detailed rehearsals may not be possible. (See FM 6-0 for additional information.)

Rehearsal Types

2-212. Each rehearsal type achieves different results and has a specific place in the preparation timeline. The four types of rehearsals are—

- Backbrief.

- Combined arms rehearsal.
- Support rehearsal.
- Battle drill or SOPs rehearsal.

Backbrief

2-213. *Backbrief* is a briefing by subordinates to the commander to review how subordinates intend to accomplish their mission (FM 6-0). The CAB commander specifies when the backbriefs will occur and it is annotated in the OPORD timeline. Subordinates may perform backbriefs throughout preparation allowing the CAB commander to clarify the commander's intent early in company-level planning, though the optimal time is before briefing the company-level OPORD. Backbriefs differ from the confirmation brief in that the company commanders are given time to complete their plan. In a time-constrained environment, the backbrief may be the only opportunity for the company commanders to explain their actions from start to finish in the presence of the CAB commander.

2-214. A technique for conducting a company backbrief to the CAB commander may follow in this sequence:

- Company task-organization.
- Most probable enemy COA (confirms understanding of enemy situation).
- Company mission.
- Company commander's intent.
- Company—
  - Scheme of maneuver.
  - Scheme of fires.
  - Scheme of support.
- C2 plan.
- Company timeline.
- Risk assessment.
- Issues or ongoing coordination.

Note. The two most efficient and effective rehearsal types utilized for the backbrief are the sketch-map and map.

Combined Arms Rehearsal

2-215. A combined arms rehearsal is a rehearsal that allows companies synchronize their plans with each other. The battalion normally executes a combined arms rehearsal after company commanders issue their OPORDs to their platoons and attachments. The combined arms rehearsal is a pivotal preparatory instrument the CAB commander utilizes to clarify details of the operation and motivate subordinates to vigorously execute the concept to achieve the desired end state. Additionally, it is the mechanism that company commanders and subordinate leaders possess to visualize their role in the mission and ensure synchronization between them and other elements.

Support Rehearsal

2-216. The support rehearsal helps synchronize each warfighting function with the overall operation. Throughout preparation, units conduct support rehearsals within the framework of a single or limited number of warfighting functions. These rehearsals typically involve coordination and procedure drills for aviation, fires, engineer support, movement and prepositioning of classes of supply, and CASEVAC.

Battle Drill or Standard Operating Procedure Rehearsal

2-217. A battle drill is a collective action rapidly executed without applying a deliberate decision-making. Battle drill or SOP rehearsal ensures all participants understand techniques or specific set of procedures. Throughout preparation, units and staffs rehearse battle drills and SOPs.

Methods of Rehearsal

2-218. Methods for conducting rehearsals are limited only by the commander's imagination and available resources. (See FM 6-0 for more information.) Resources required for each technique range from broad to narrow and each rehearsal technique imparts different level of understanding to participants (see figure 2-8). Rehearsal techniques generally used are—

- Full-dress rehearsal.
- Key leader rehearsal.
- Terrain-model rehearsal.
- Digital terrain-model rehearsal.
- Sketch-map rehearsal.
- Map rehearsal.
- Network rehearsal.

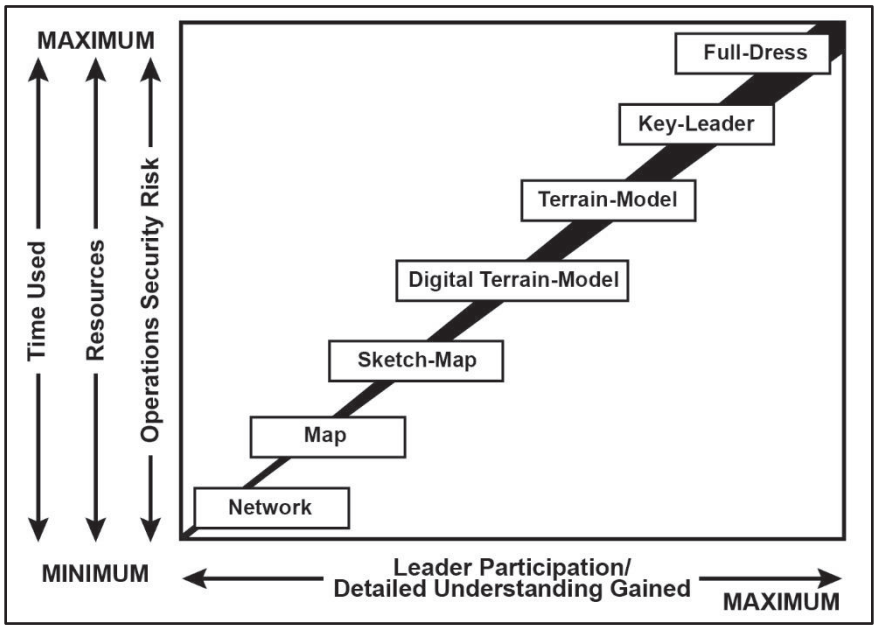


Figure 2-8. Methods of rehearsals

Full-Dress Rehearsal

2-219. A full-dress rehearsal produces the most detailed understanding of the operation. It includes every participating Soldier and system within the CAB. Leaders rehearse with their subordinates on terrain similar to the AO, initially under ideal conditions, and then under more challenging conditions such as limited visibility as dictated by situation, if METT-TC permits. Leaders repeat small-unit actions until executed to standard. Full-dress rehearsals help Soldiers clearly understand what commanders expect of them. It helps them gain confidence in their ability to accomplish the mission. Supporting elements, such as aviation crews, meet and rehearse with Soldiers to synchronize the operation.

2-220. Full-dress rehearsals consume more time than any other rehearsal type. For companies and smaller units, full-dress rehearsals effectively ensure all units in the operation understand their roles. However, the

CAB commander considers how much time the subordinates need to plan and prepare when deciding whether to conduct a full-dress rehearsal.

Key Leader Rehearsal

2-221. Circumstances may prohibit a rehearsal with all members of the CAB. A key leader rehearsal involves only key leaders of the CAB and companies. It normally takes fewer resources than a full-dress rehearsal. Terrain requirements mirror those of a full-dress rehearsal, even though fewer Soldiers participate. The CAB commander first decides the level of leader involvement. Then selected leaders rehearse the plan while traversing the actual or similar terrain. The CAB commander may use this technique to rehearse fire control measures for an engagement area (EA) during defensive operations. The CAB commander may use a key leader rehearsal to prepare key leaders for the full-dress rehearsal. This may require developing a rehearsal plan mirroring the actual plan but fits the terrain of the rehearsal.

2-222. A key leader rehearsal normally requires less time than a full-dress rehearsal. The commander considers how much time subordinates need to plan and prepare when deciding whether to conduct a key leader rehearsal.

Terrain-Model Rehearsal

2-223. The terrain-model rehearsal takes less time and fewer resources than a full-dress or reduced-force rehearsal. Generally speaking, a terrain-model rehearsal takes a brigade or below unit between one to two hours to execute to standard. An accurately constructed terrain model helps subordinate leaders visualize the commander's intent and concept of operations.

2-224. When possible, the commander places the terrain model where it overlooks the actual terrain of the AO. However, if the situation requires more security, the commander places the terrain model on a reverse-slope within walking distance of a point overlooking the AO. The model's orientation coincides with the terrain. The size of the terrain model can vary from small (using markers to represent units) to large (on which the participants can walk). A large model helps reinforce the participants' perception of unit positions on the terrain.

2-225. Often, constructing the terrain model consumes the most time during this technique. Units require a clear SOP that states how to build the model so it is accurate, large, and detailed enough to conduct the rehearsal. The terrain model should resemble the terrain as closely as possible, replicating significant changes in elevation; major terrain features, and man-made structures such as roads, bridges, and major facilities. A good SOP establishes staff responsibility for building the terrain model and a timeline for its completion. If the terrain model is to be used by subordinate units over a period of time, a dedicated team should be on hand to rebuild or repair any portions that may become damaged in the process.

Note. If available and depending upon the size and intricacy of the terrain model, tasking engineers to construct terrain models of larger scale with equipment to scale replicate a portion of the AO.

Digital Terrain-Model Rehearsal

2-226. With current digital capabilities, users can construct terrain models in virtual space. Units drape high-resolution imagery over elevation data thereby creating a fly-through or walk-through. Holographic imagery produces the view in three dimensions. Often, the model links graphics, detailed information, UASs, and ground imagery to key points providing more insight into the plan. Digital terrain models reduce the OPSEC risk because they do not use real terrain. Additionally, this type of rehearsal does not require all participants to be present at the same location when executing the rehearsal itself. The brigade or division's geospatial engineers or imagery analysts can provide digital models. See ATP 3-34.80 for a full description of available geospatial products. This type of rehearsal will require the use of specific hardware and software that may not be available to all units or under all operational conditions.

Sketch-Map Rehearsal

2-227. The CAB commander can use the sketch-map technique almost anywhere, day or night. The procedures are the same as for a terrain-model rehearsal except the commander uses a sketch-map in place of a terrain model. A sketch-map is no more than an outline map drawn from observation, showing only main features and areas, while lacking details found on a standard military map, such as scale and accurate gridlines. The sketch-map may be done by hand or, if available, by digital means.

2-228. Large sketches ensure all participants can see as each participant walks through execution of the operation. Participants move markers on the sketch to represent unit locations and maneuvers. Sketch-map rehearsals take less time than terrain-model rehearsals but more time than map rehearsals.

Map Rehearsal

2-229. A map rehearsal is similar to a sketch-map rehearsal except the commander uses a map and operation overlays of the same scale used to plan the operation. Normally, a map rehearsal is the easiest technique to set up since it requires only maps and graphics for current operations. This technique requires the least terrain of all rehearsals, able to be executed on the hood or front-slope of a vehicle if necessary. If executed over digital platforms, the map rehearsal does not require key leaders to gather in one single location. If conducted off of a standard analog map with acetate overlays, a good site ensures participants can easily find it yet stay concealed from the enemy. As with most types of rehearsals, an optimal location overlooks the terrain where the CAB plans to execute its mission.

Network Rehearsal

2-230. Subordinate units conduct network rehearsals over wide-area networks or local area networks. The commander and staff practice this rehearsal by talking through critical portions of the operation over communications networks in a sequence the commander establishes. The organization rehearses only the critical parts of the operation. These rehearsals require all information systems needed to execute that portion of the operation. All participants require working information systems, the OPORD, and overlays. CPs can rehearse battle tracking during network rehearsals.

> ***Note.*** Network rehearsals also include the use of radios, whether satellite, very high, or ultra-high frequency radios. Care must be taken to ensure that all radio communications are encrypted and that transmission are limited in duration in order to prevent the enemy from detecting the energy emissions and determining the location of key leader participants.

Effective Rehearsals

2-231. Effective rehearsals ensure the staff and company commanders understand the CAB commander's intent and concept of operation. Rehearsals are used to—

- Contribute to external and internal coordination as the staff or subordinates identify additional coordinating requirements.
- Practice essential tasks to improve performance.
- Reveal weaknesses or problems in the plan.
- Reveal previously unidentified shortcomings in unit SOPs.
- Coordinate actions of subordinate elements.
- Improve understanding of concept of the operation to foster confidence.

2-232. Adequate time is essential when conducting rehearsals. Time required varies with complexity of mission, type and technique of rehearsal, and level of participation. Given time availability, units conduct rehearsals at the lowest possible level, using thorough techniques. Under time constraints, subordinate commanders and leaders conduct abbreviated rehearsals, focusing on critical events determined by reverse planning. Each unit has different critical events based on mission, unit readiness, and commander's assessment or intent.

2-233. Whenever possible, company commanders and leaders base rehearsals on approved SOP. However, the CAB may rehearse contingency plans to prepare for an anticipated mission. Rehearsals are coordinating events, not an analysis. They do not replace war-gaming. The CAB commander and staff war-game during the MDMP to analyze different COAs determining the optimal one. Rehearsals practice selected actions. The CAB commander and subordinates avoid making major changes to SOPs during rehearsals. They make those changes essential to mission success and risk mitigation.

2-234. Companies, platoons, or attachments may begin rehearsals of battle drills and other SOPs before receiving the OPORD. Once the order has been issued, they can then rehearse mission-specific tasks. Key tasks to rehearse include but are not limited to—

- Actions on the objective or in the AA.
- Uncoiling from the AA.
- Assaulting enemy positions.
- Actions on reacting to indirect fire.
- Breaching obstacles (mine and wire).
- Actions on unexpected enemy contact.
- Encounters with civilians.

Rehearsal Assessment

2-235. The CAB commander establishes standards for rehearsals. Properly executed rehearsals validate each leader's role and how each company contributes to the overall mission, what each company does, when each company does it relative to times and events, and where each company does it to achieve desired effects. An effective rehearsal ensures the subordinate leaders at all levels have common vision of the enemy, their own forces, terrain, and relationship between them. It identifies specific actions requiring immediate staff resolution and informs the headquarters of critical issues or locations the commander and key individuals must oversee.

2-236. The CAB commander and subordinate leaders assess and critique all parts of rehearsals. Critiques center on how well the plan achieves the commander's intent and on coordination necessary to accomplish its goal. Usually, the CAB commander leaves internal execution tasks within rehearsals to the company commander's judgment and discretion.

2-237. An SOP rehearsal provides opportunities for the commander and subordinates to identify and fix unresolved problems within the SOP. Subordinate leaders and key individuals ensure all participants understand changes to unit SOP and the recorder captures all coordination done at rehearsals. All changes to the published SOP are in effect as soon as possible. The staff publishes these changes to the SOP and distributes to all units and personnel affected.

Rehearsal Area Coordination

2-238. Rehearsal area coordination is conducted with key leaders and commanders to facilitate the unit's safe, efficient and effective use of rehearsal area before its mission. Rehearsal area coordination includes—

- Identification of your unit.
- Mission.
- Terrain similar to the objective site.
- Security of the area.
- Availability of aggressors.
- Use of blanks, pyrotechnics, and ammunition.
- Available mock-ups.
- Time area is available (preferably, when light conditions approximate light conditions for the operation).
- Transportation.
- Coordination with other units using the area.

2-239. Regardless of the type of rehearsal conducted, consideration must be given to the overall signature presented to the enemy, whether it is visual, audible, or other detectable means. It must be assumed that the CAB is under some form of observation (whether by enemy personnel or civilian personnel who report to the enemy) throughout the entire planning and preparation phases, to include the rehearsal itself. Large collections of vehicles or personnel where previously there have been none can serve as indicators to whoever may be observing activity. All attempts must be made to conceal the location and execution of the rehearsal.

CONDUCT PRECOMBAT CHECKS AND INSPECTION

2-240. Subordinate unit preparation includes completing precombat checks and inspections. These checks ensure Soldiers, units, staffs, and systems are as fully capable and ready to execute the mission as time and resources permit. Inspections ensure the force has the resources necessary to accomplish the movement. Leaders should conduct initial inspections shortly after receipt of the WARNORD. Precombat checks differ from precombat inspections in that they are performed at squad, crew and individual level. Precombat inspections allow the leaders and commander to check the operational readiness and preparedness to execute any upcoming mission. Leaders should spot check throughout the unit's preparation for combat. Key leaders should conduct final inspections prior to executing the mission. Key leaders should inspect—

- Weapons and ammunition.
- Fuel and requisite petroleum, oils, and lubricants products.
- Vehicle load plans.
- Uniforms and equipment.
- Mission-essential equipment (for example, tank plow and rollers for breaching operations).
- Digital and analog maps along with correct supporting graphics.
- Soldiers understanding of the mission and individual responsibilities.
- Communications equipment.
- Rations and water.
- Camouflage.
- Deficiencies noted during earlier inspection.

GRAPHIC AND OVERLAYS

2-241. All digital information systems effectively support the creation and transmission of mission orders. The CAB staff sections usually develop their portions of OPORDs and send them to the S-3 section. The S-3 section then merges the individual portions into a single document, and transmits it via maneuver control system to subordinate, higher, and adjacent units. When creating OPORDs, remember that the tactical internet is limited by bandwidth.

2-242. Orders and graphics must be concise to reduce transmission times. Orders transmitted directly to digital C2 platforms may need to meet the size constraints in regards to data transmission capabilities. Graphics and overlays should be constructed with the same considerations for clarity and size. Situational information reduces the need for control measures to some degree, but the staff must always consider the integration of analog units and that situational information might not always be available to all elements.

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Chapter 3
Offense

The primary purpose of the offense is to defeat, destroy, or neutralize an enemy force. A commander will also take offensive actions to deceive or divert the enemy, deprive them of resources or decisive terrain, develop intelligence, or fix an enemy in position. Even in the defense, offensive action may be required to destroy an attacker and exploit success. The key to a successful offensive operation is to identify the decisive point, choose a form of maneuver that avoids the enemy's strength, and mass overwhelming combat power at the decisive point. This achieves a result with respect to terrain, enemy, and time that accomplishes the unit's purpose.

SECTION I – BASICS OF OFFENSE

3-1. Offensive operations impose the commander's will on the enemy. The CAB commander gains and maintains the initiative and keeps constant pressure on the enemy throughout the AO. The offense compels an enemy to react, creating new or larger weaknesses the attacking force can exploit. The CAB transitions from one offensive action to another without pausing. Planning and preparing for the next operation and for follow-on operations occur simultaneously with execution of the current action.

CHARACTERISTICS OF OFFENSIVE OPERATIONS

3-2. Success in offensive operations depends on the proper application of the fundamental characteristics of the offense discussed in the following paragraphs. The CAB's ability to maneuver mounted or dismounted makes flexibility a key attribute.

AUDACITY

3-3. Audacity is a simple plan of action, boldly executed. Audacity inspires Soldiers to overcome adversity and danger. Audacity is a key component of any successful offensive action and increases the chance for surprise. Leaders must understand when and where to take risks, plan for them, and execute boldly.

CONCENTRATION

3-4. A force achieves concentration by massing the effects of combat power. The CAB commander uses the shared COP to maneuver the Armor and mechanized Infantry forces while applying precise indirect fires to overwhelm foes at the decisive point and quickly shift from one objective or direction to another. A CAB achieves concentration through—

- Careful planning and coordination based on a thorough terrain and enemy analysis plus accurate, timely reconnaissance.
- Designation of a main effort and allocation of resources to support it.
- Continuous information flow.
- Massing firepower by synchronizing direct and indirect fire systems to superimpose effects on the enemy.

SURPRISE

3-5. A force achieves surprise by attacking the enemy at a time or place and in a manner for which the enemy is not physically or mentally ready. The CAB commander must have a clear understanding of the

current state in relation to the enemy and other conditions of the operational environment; a sound understanding of what the end state is for the assigned mission, and a vision of how to move the force from the current situation to the end state. The CAB achieves surprise by—

- Conducting thorough information collection and counterreconnaissance efforts.
- Striking the enemy from an unexpected direction at an unexpected time through the unique combination of rapid mounted movement and the ability of units to cross any type of terrain.
- Quickly changing the tempo of the operations.
- Being unpredictable.

TEMPO

3-6. *Tempo* is the relative speed and rhythm of military operations over time with respect to the enemy (ADP 3-0). It is the controlled rate of military action. While a rapid tempo is often preferred, the tempo should be adjusted to ensure synchronization. The goal is to keep pressure on the enemy whether it is done quickly or slowly. The CAB's information systems and mobility capabilities facilitate the synchronization necessary for a rapid execution tempo.

FORMS OF MANEUVER

3-7. *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 (ADP 3-90). There are five basic forms of maneuver: envelopment, frontal assault, infiltration, penetration, and turning movement. CABs accomplish their missions by identifying when and where to execute these forms of maneuver. The commander selects a form of maneuver as a foundation upon which to build a COA.

ENVELOPMENT

3-8. *Envelopment* is a form of maneuver in which an attacking force seeks to avoid the principal enemy defenses by seizing objectives behind those defenses that allow the targeted enemy force to be destroyed in their current positions (FM 3-90-1). Envelopments focus on seizing terrain, destroying specific enemy forces, and interdicting enemy withdrawal routes. An envelopment avoids the enemy's front; where the enemy is strongest, where the enemy's attention is focused, and where the enemy's fires are most easily concentrated. During an envelopment, the CAB's shaping operation is to fix the defender, while the decisive operation is maneuvering out of contact around the enemy's defenses to strike at assailable flanks, the rear, or both. If no assailable flank is available, the attacking force creates one through the conduct of a penetration.

3-9. Envelopments may be conducted against a stationary or moving enemy force. Sometimes the enemy exposes their flank by their own forward movement, when unaware of their opponent's location. In noncontiguous areas of operation, the combination of air and ground fires may isolate the enemy on unfavorable terrain and establish conditions for maneuver against an assailable flank or rear. Attacking forces need to be agile enough to concentrate and mass combat power before the enemy can reorient their defense. Fixing forces must have sufficient combat power to keep the enemy engaged, while the enveloping force maneuvers to close with the enemy.

3-10. The four varieties of envelopment are the single envelopment (see figure 3-1), double envelopment, encirclement, and vertical envelopment. Three of the varieties of envelopment are defined below:

- A *single envelopment* is a form of maneuver that results from maneuvering around one assailable flank of a designated enemy force (FM 3-90-1). (See FM 3-90-1 and FM 3-96 for information on a single envelopment.)

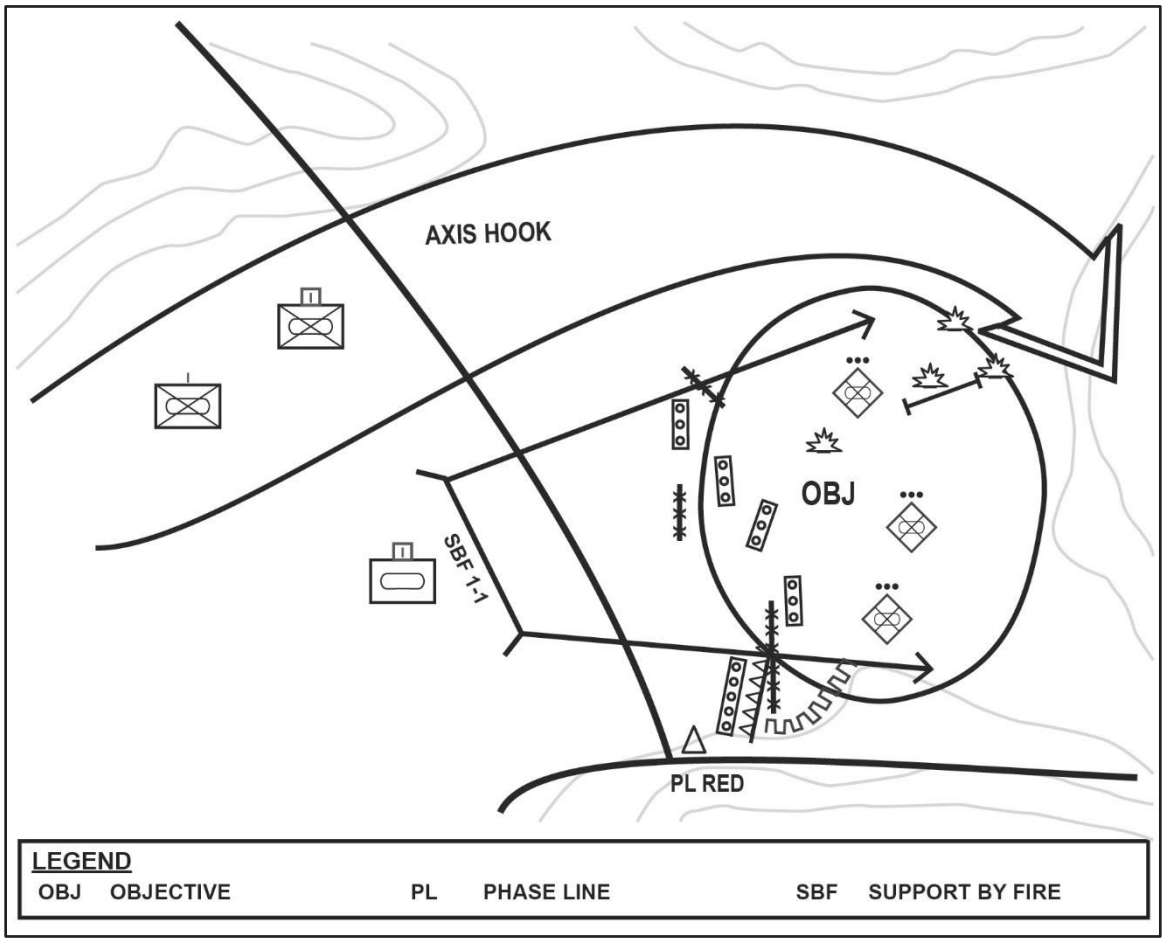


Figure 3-1. Single envelopment

- *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 communication and reinforcement (ADP 3-90). (See FM 3-90-2 and FM 3-96 for a discussion of offensive encirclement operations.)
- Vertical envelopments involve troops that are either air-dropped or air-landed, attack the rear or flanks of a force, in effect cutting off or encircling the force. (See FM 3-99 for a discussion of airborne and air assault operations.)

3-11. Single and double envelopments force the enemy to fight in two or more directions simultaneously to meet the converging efforts of the attack. A double envelopment generally requires a preponderance of force and can be difficult to control. Units seeking to execute a double envelopment must also have a substantial mobility advantage over the defender. Because of the forces required, normally only divisions and larger organizations have the resources to execute a double envelopment.

FRONTAL ASSAULT

3-12. A frontal assault is a form of maneuver in which the attacking force seeks to destroy a weaker enemy force or fix a larger enemy force in place over a broad front (see ADP 3-90). The frontal assault is usually the least desirable form of maneuver because it exposes the majority of the offensive force to the concentrated fires of the defenders (see figure 3-2 on page 3-4). The CAB normally conducts a frontal assault as part of a larger operation against a stationary or moving enemy force. Frontal assaults are used when commanders possess overwhelming combat power and the enemy is at a clear disadvantage or when fixing the enemy over a wide front is the desired effect and a decisive defeat in that area is not expected. The CAB attacks the

enemy across a wide front and along the most direct approaches. It uses a frontal assault to overrun and destroy a weakened enemy force or to fix an enemy force. The frontal assault may be appropriate in an attack or meeting engagement where speed and simplicity are paramount to maintain tempo and, ultimately, the initiative; or in a shaping attack to fix an enemy force.

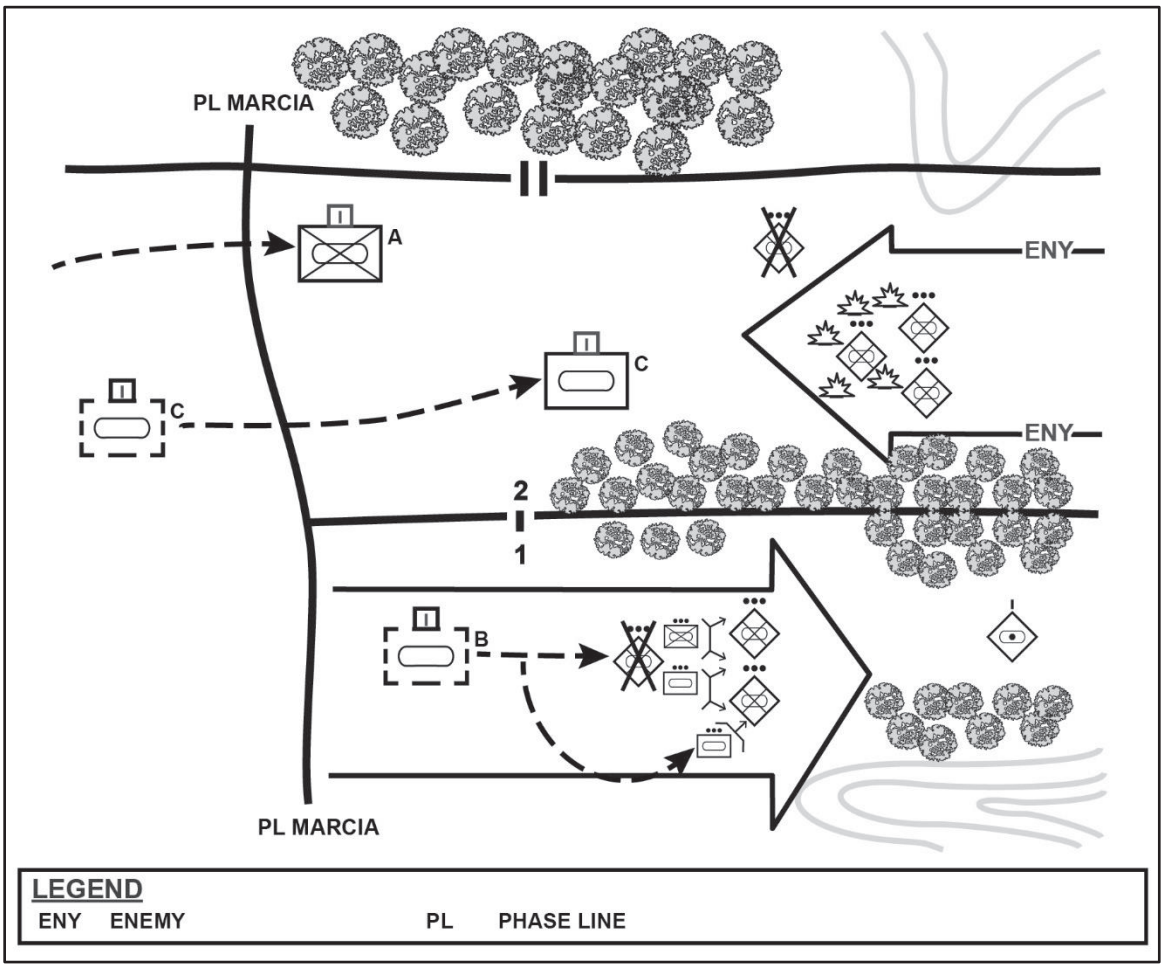


Figure 3-2. Frontal assault

INFILTRATION

3-13. An *infiltration* is a form of maneuver in which an attacking force conducts undetected movement through or into an area occupied by enemy forces to occupy a position of advantage in the enemy rear while exposing only small elements to enemy defensive fires (FM 3-90-1). The commander avoids alerting the enemy of the intentions by positioning maneuver and artillery units and the effects of fires in support of the infiltration (see figure 3-3). Infiltration is normally used in conjunction with some other form of maneuver. An infiltration should be planned during limited visibility through areas the enemy does not occupy or cover by surveillance and fire.

3-14. Planning should incorporate infiltration lanes, rally points along the route or axis, and contact points. Single or multiple infiltration lanes can be planned. A single infiltration lane facilitates navigation and control and is less susceptible to detection, but it requires more time to move larger forces through. Multiple infiltration lanes are more difficult to control but reduce the possibility of compromising the entire force and facilitate faster movement.

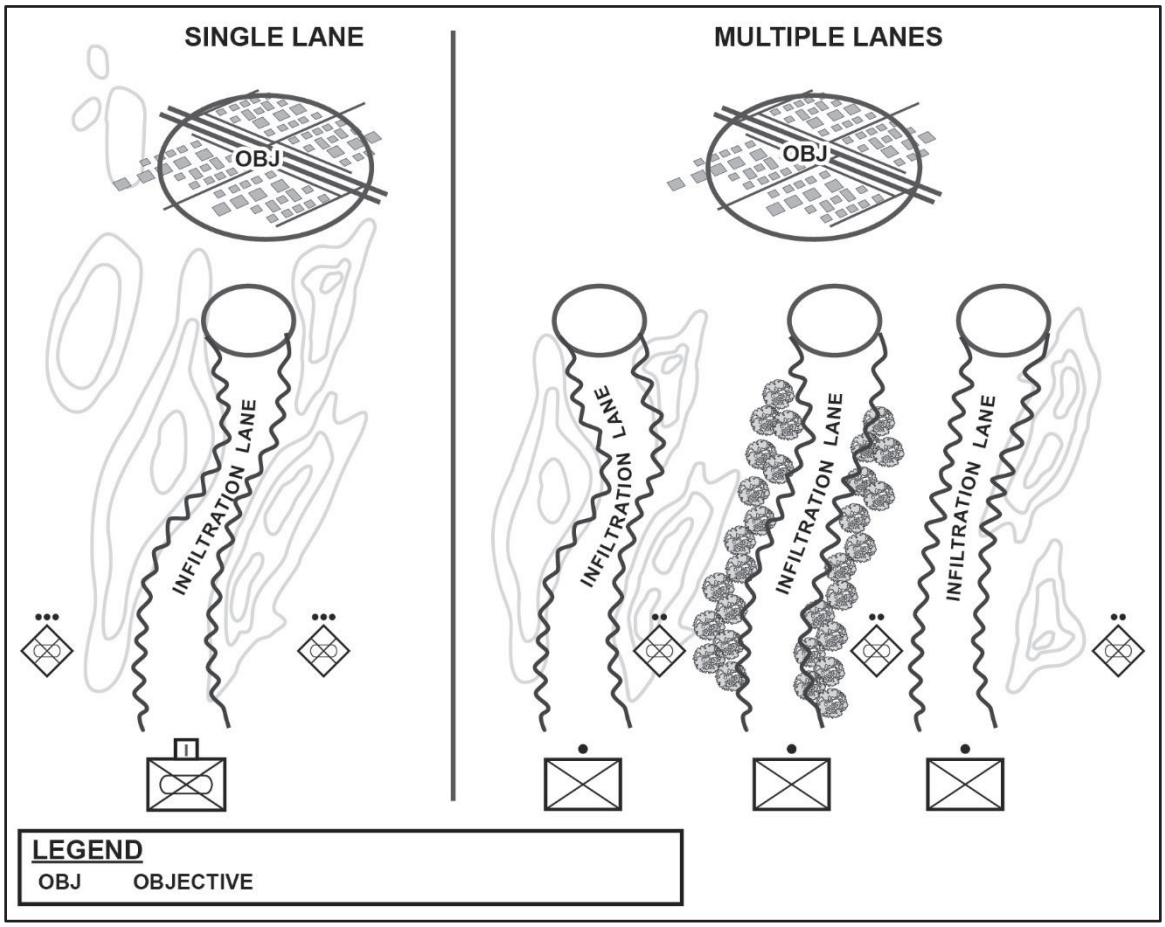


Figure 3-3. Infiltration

PENETRATION

3-15. A *penetration* is a form of maneuver in which an attacking force seeks to rupture enemy defenses on a narrow front to disrupt the defensive system (FM 3-90-1). In a penetration, the attacker concentrates forces to strike at an enemy weak point and break through the position to rupture the defense and break up its continuity (see figure 3-4 on page 3-6). The attacker then uses the gap created to pass forces through to defeat the enemy through attacks into their flanks and rear. A successful penetration depends on the attacker's ability to suppress enemy weapons systems, to concentrate forces to overwhelm the defender at the point of attack, and to pass sufficient forces through the gap to defeat the enemy quickly. A penetration is normally attempted when enemy flanks are unassailable or when conditions permit neither envelopment nor a turning movement such as an attack against the enemy's main defensive belt.

3-16. The penetration of an enemy position requires a concentration of combat power to permit continued momentum of the attack. The attack should move rapidly to destroy the continuity of the defense since, if it is slowed or delayed, the enemy will be afforded time to react. If the attacker does not make the penetration sharply and secure objectives promptly, the penetration is likely to resemble a frontal assault. This may result in high casualties and permit the enemy to fall back intact, thus avoiding destruction.

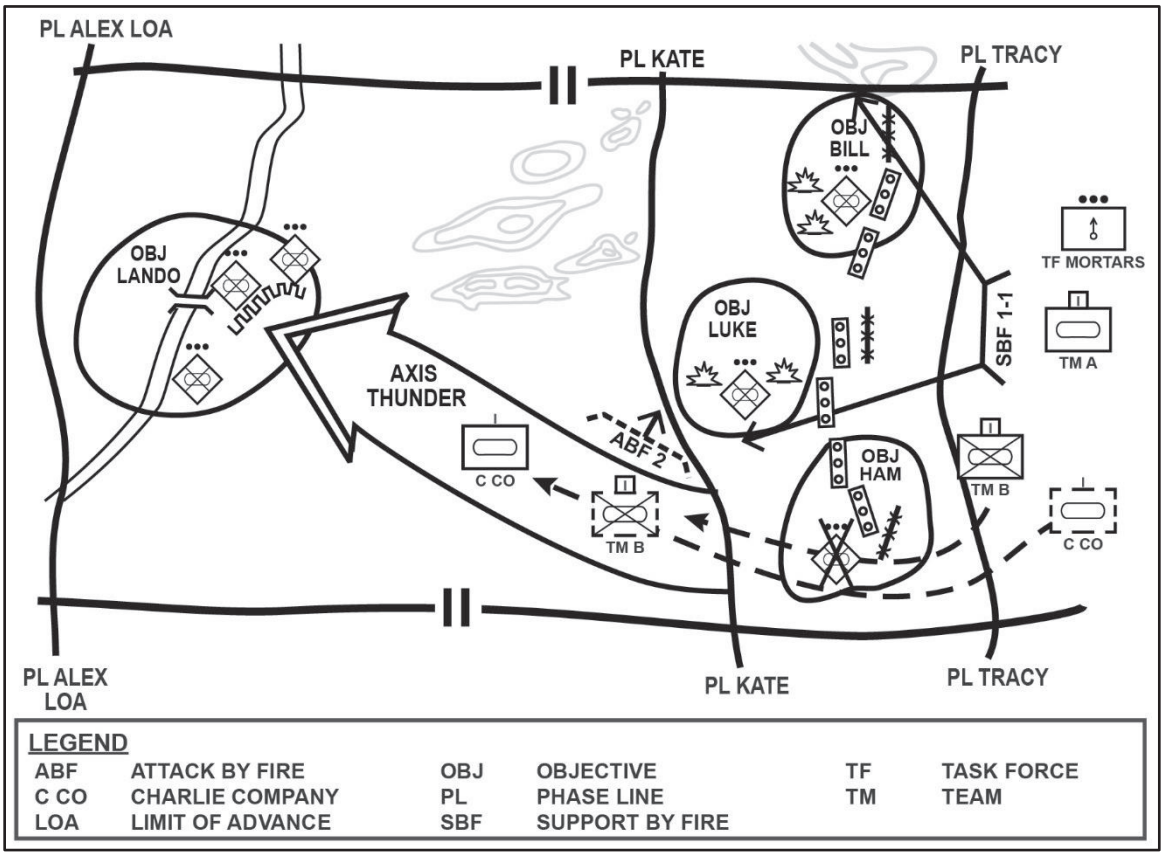


Figure 3-4. Penetration

TURNING MOVEMENT

3-17. A *turning movement* is a form of maneuver in which the attacking force seeks to avoid the enemy's principle defensive positions by seizing objectives behind the enemy's current positions thereby causing the enemy force to move out of their current positions or divert major forces to meet the threat (FM 3-90-1). The objective of the turning movement is to make contact with the enemy, but at a location of the commander conducting the turning movement's advantage and out of the enemy established kill zones. A turning movement differs from envelopment because the force conducting a turning movement seeks to make the enemy forces displace from their current locations, whereas an enveloping force seeks to engage the enemy forces in their current locations from an unexpected direction. (See FM 3-90-1 for more information on turning movements.)

3-18. A turning movement is particularly suited for division-sized or larger forces possessing a high degree of tactical mobility. The CAB conducts a turning movement as part of that larger force, most likely as a shaping operation or fixing force as opposed to the decisive operation involving the turning force. The commander directing the turning movement can employ a vertical envelopment using airborne or air assault forces to affect a turning movement.

3-19. Generally speaking, all forms of maneuver consist of four events, which units control by using phasing and graphic control measures. The four events are—

- Movement to the line of departure (LD).
- Approach to the objective.
- Actions on the objective.
- Consolidation and reorganization.

Movement to the Line of Departure

3-20. When attacking from positions not in contact, CABs often stage in tactical AAs, conduct a tactical road march (see chapter 7, section II for more information) to attack positions behind friendly units in contact with the enemy, conduct forward passage of lines, and begin the attack.

Approach to the Objective

3-21. The commander and staff plan the approach to the objective to ensure security, speed, and flexibility. They select routes (direction of attack or axis of advance), techniques, formations, and methods (mounted or dismounted) that best support actions on the objective. All leaders must recognize this portion of the battle as a tactical operation, not an administrative movement. The CAB may fight through enemy combat forces, obstacles, artillery strikes, security elements, or possible spoiling attacks to reach the initial objective. The commander employs techniques that avoid the enemy's strength when possible and conceal the battalion's true intentions. The commander tries to prevent the enemy from focusing fires on decisive operations, uses surprise to take advantage of the initiative in determining the time and place of the attack, and when available, uses indirect approaches to strike the enemy from a flank or the rear. As part of setting the conditions for success, the battalion also develops an indirect fires plan, CASEVAC plan, and sustainment plan. Although the unit may not expect contact prior to crossing the LD, it must be prepared for it. The approach phase is terminated when the battalion reaches the objective or decisively engages the enemy force.

3-22. While approaching the objective, the CAB must be prepared for any of the eight forms of contact:

- Visual
- Direct.
- Indirect.
- Nonhostile.
- Obstacles.
- Aircraft.
- CBRN.
- Electronic (includes cyberspace).

Actions on the Objective

3-23. During an offensive operation, the CAB's objective may be terrain or force oriented. Terrain-oriented objectives usually require the battalion to seize or secure key or decisive terrain. However, to gain a terrain-oriented objective often requires fighting through enemy forces. Force-oriented objective requires the destruction, defeat or removal of enemy forces on the objective. Actions on the objective start when the battalion echelons its fires onto the objective. Actions on the objective phase terminate when the unit reaches the limit of advance (LOA) and begins consolidation and reorganization.

Consolidation and Reorganization

3-24. The CAB reorganizes and consolidates as required by the situation and mission in order to transition to the next mission. The consolidation and reorganization plan should be as detailed as the assault plan. Reorganization is normally conducted concurrently with consolidation—

- Planning considerations during consolidation include—
  - Unit locations.
  - Priority for combat power regeneration.
  - Sectors of fire.
  - Forces oriented on enemy.
  - Counterattack routes.
  - Provisions to facilitate transition to follow-on operations.
- Reorganization requires detailed planning to provide the CAB with a mechanism for evacuating and recovering casualties, recovering damaged equipment, providing for prisoners of war, and

integrating replacement personnel. Reorganization occurs as necessary to prepare the unit for follow-on missions.

FOLLOW-ON MISSIONS

3-25. The CAB executes follow-on missions as directed by the higher commander. Follow-on missions can include continuing the attack, supporting a passage of lines for a follow-on force, defending, or participating in an exploitation or pursuit. As populated areas are freed from enemy control, some portion of the force may conduct stability operations. This could include defeat of insurgents until control of the area reverts to local civil authorities. The battalion develops plans for follow-on missions based on the higher headquarters' plan, the higher commander's intent, and the anticipated situation.

MOVEMENT FORMATIONS

3-26. The CAB may move in any one of these basic formations: column, wedge, vee, echelon, and line. The CAB may use more than one formation in a given movement. For example, the CAB may be conducting a movement to contact (known as MTC) in column formation while the lead company team may be in a wedge formation. Another example is the CAB commander may elect to use the column formation during a passage of lines and then change to another formation, such as a wedge. Other factors, such as the distance of the move or enemy dispositions, may also prompt the commander to use more than one formation. Distances between units depend on the factors of METT-TC.

COLUMN

3-27. The CAB moves in column formation (see figure 3-5) when early contact is not expected and the objective is far away. The column formation—

- Facilitates speed of movement, ease of control, and particularly in close terrain.
- Provides for quick transition to other formations.
- Requires flank security.
- Provides the majority of firepower to flanks.

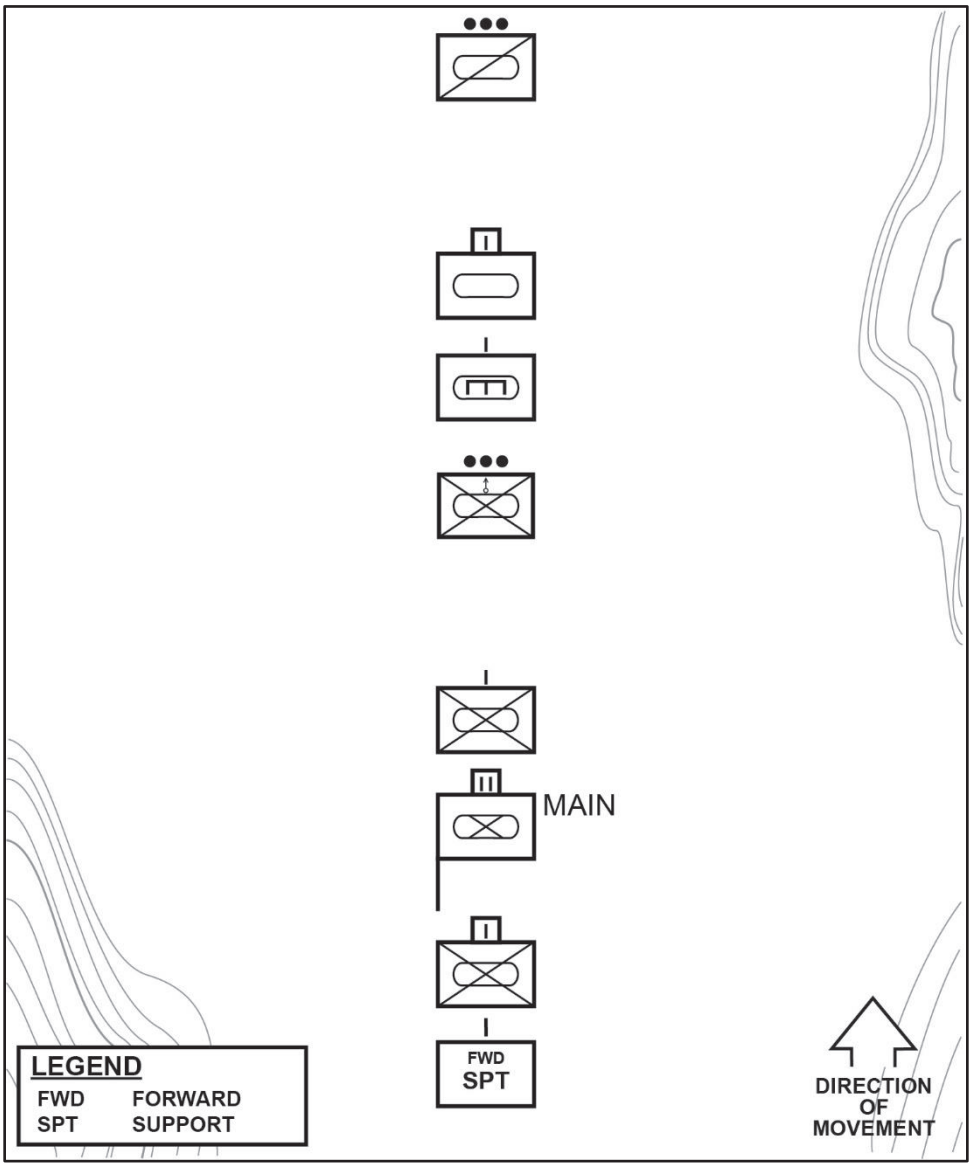


Figure 3-5. Combined arms battalion in column formation

WEDGE

3-28. The wedge formation (see figure 3-6 on page 3-10) postures the CAB for enemy contact on its front and flanks. The force uses the wedge when enemy contact is possible or expected, but the location and disposition of the enemy is vague. When not expecting enemy contact, it may use the wedge to cross open terrain rapidly. The wedge formation—

- Facilitates control and transition to the assault.
- Provides for maximum firepower forward and good firepower to the flanks.
- Requires sufficient maneuver space to disperse laterally and in-depth.

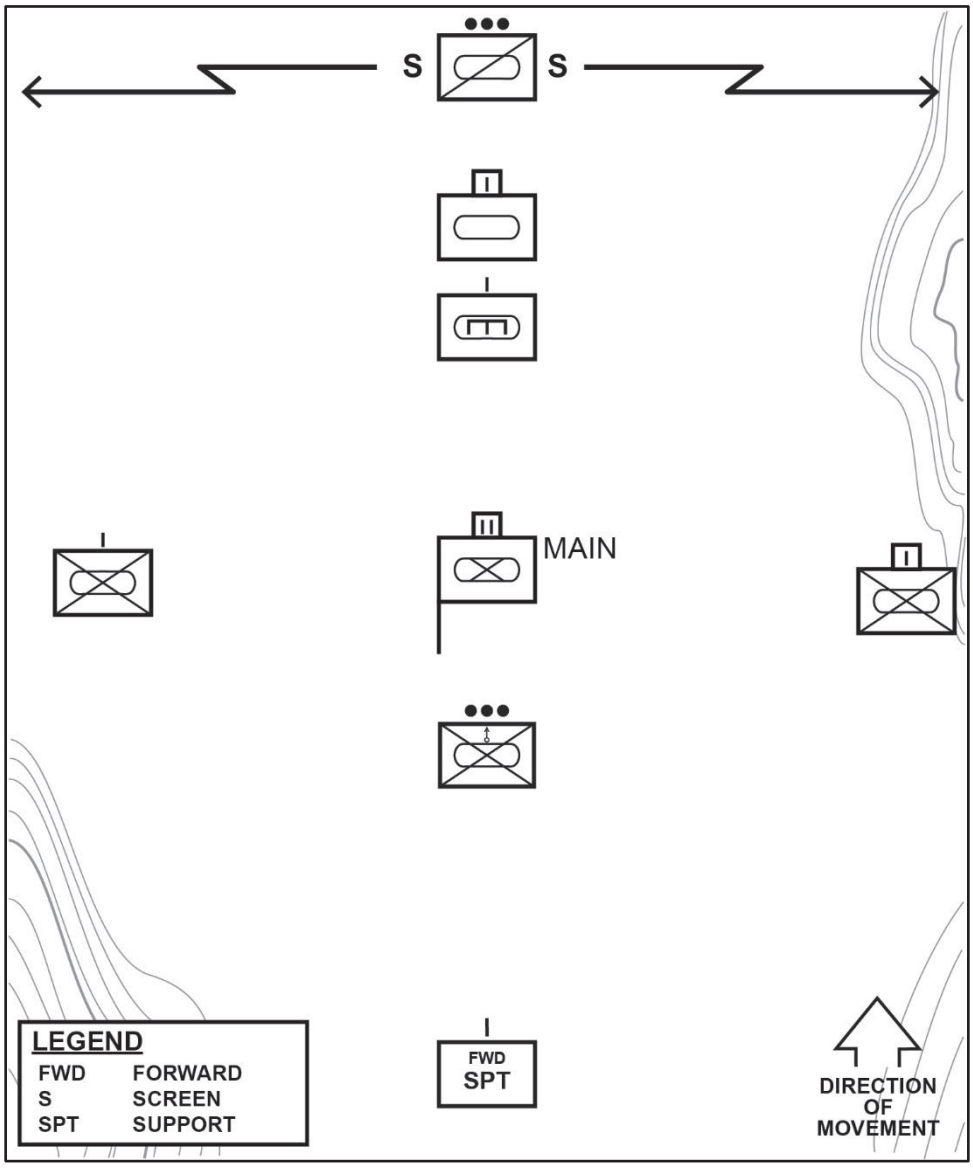


Figure 3-6. Combined arms battalion in wedge formation

VEE

3-29. The vee formation (see figure 3-7) postures the CAB with two company teams abreast and one trailing. This arrangement is most suitable to advance against an enemy known to be to the front of the CAB. The CAB may use the vee when enemy contact is expected and the location and disposition of the enemy is known. The vee formation—

- Is hard to orient; control is more difficult in close or wooded terrain.
- Provides for good firepower forward and to the flanks.
- Enhances flexibility in that the trail company team can reinforce either of the forward company teams or envelop an enemy flank in support of the forward companies.

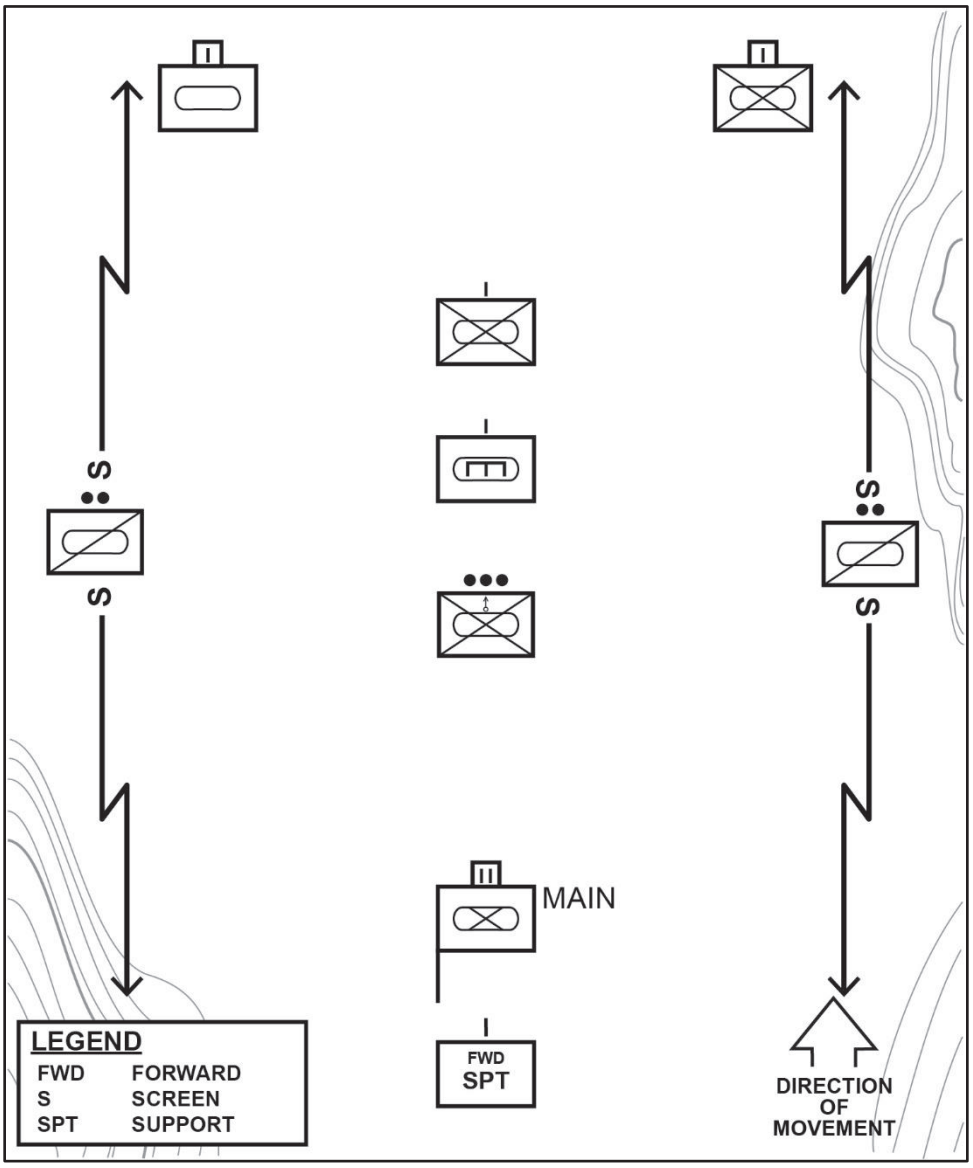


Figure 3-7. Combined arms battalion in vee formation

ECHELON

3-30. The echelon formation (see figure 3-8 on page 3-12) arranges the CAB with the company teams in column formation in the direction of the echelon (right or left). The CAB commonly uses the echelon when providing security to a larger moving force. The echelon formation—

- Provides for firepower forward and in the direction of the echelon.
- Facilitates control in open areas but makes it more difficult in heavily wooded areas.

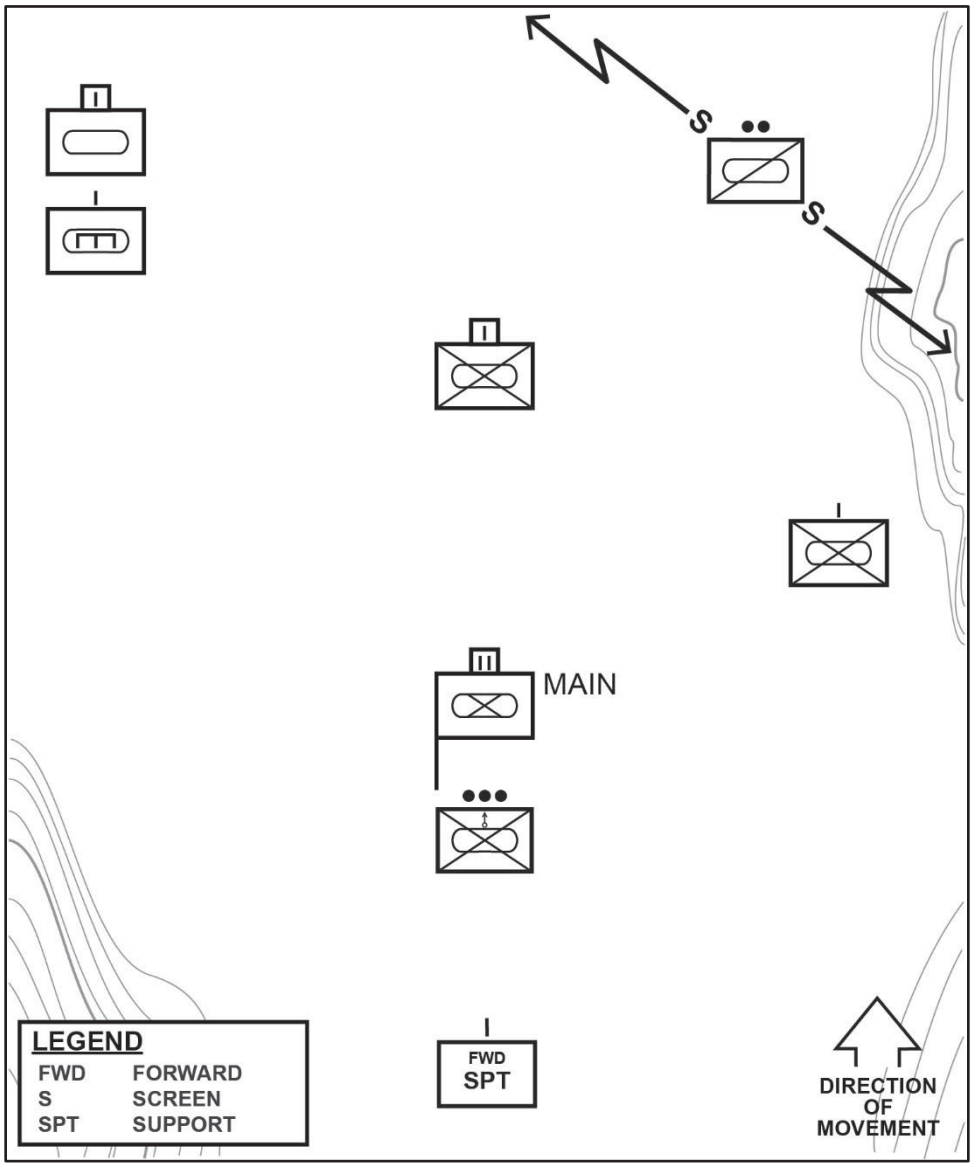


Figure 3-8. Combined arms battalion in echelon formation

LINE

3-31. The line formation (see figure 3-9) postures the CAB with company teams in-line and abreast of one another. Since it does not dispose company teams in-depth, the line formation provides less flexibility of maneuver than other formations. The CAB uses the line in an assault when it requires continuous movement with maximum firepower to the front.

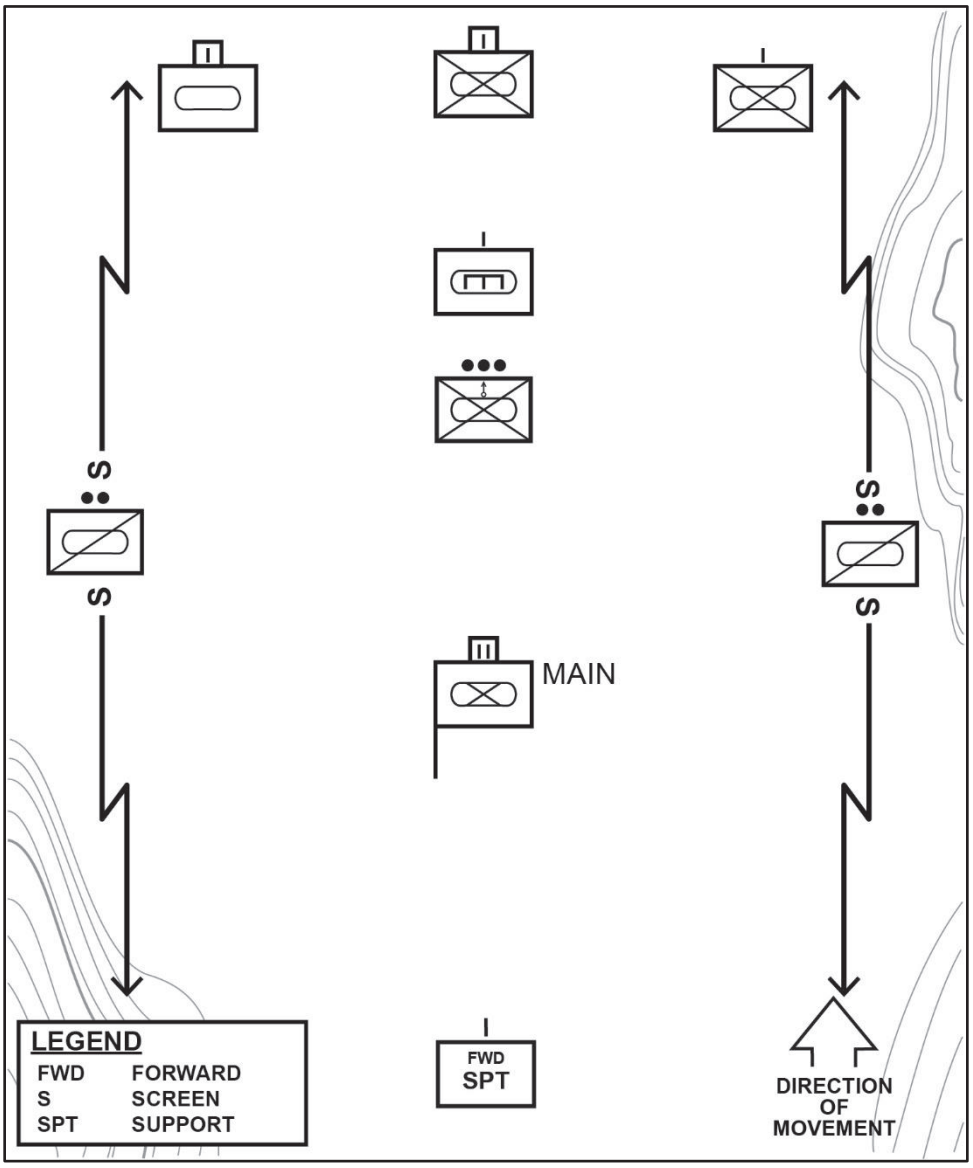


Figure 3-9. Combined arms battalion in line formation

DIRECT FIRE CONTROL IN THE OFFENSE

3-32. The ultimate goal of direct fire control is to mass fires, but the concept of massing direct fires is widely misunderstood. Frequently, it is mistaken for volume. Volume of fires does not equal massing of fires. Massing of fires is defined by the terminal effect on the enemy, not the number of systems firing or the number of rounds fired.

PRINCIPLES OF DIRECT FIRE CONTROL

3-33. Effective fire control requires a unit to rapidly acquire the enemy and mass the effects of fires to achieve decisive results in the close fight. In addition, there are several principles of direct fire that the CAB commander and subordinate leaders must know how to apply during tactical operations. The purpose of these principles of direct fire is not to restrict the actions of subordinates. Applied correctly, they help the CAB to accomplish its primary goal in any direct fire engagement: to acquire first and shoot first. They give

subordinates the freedom to act quickly upon acquisition of the enemy. (See FM 3-90-1 for more information.) This discussion focuses on the principles listed below:

- Mass the effects of fire.
- Destroy the most dangerous threat first.
- Avoid target overkill.
- Employ the most appropriate weapon.
- Minimize friendly exposure and avoid fratricide.
- Plan for extreme limited visibility conditions.
- Develop contingencies.

DIRECT FIRE PLANNING

3-34. Leaders plan direct fires in order to be able to distribute and control their fire. Determining where and how the company team can mass fires is an essential step in this process. Based on where and how they want to focus and distribute fires, leaders can establish the weapons ready postures for their elements as well as triggers for initiating fires. During mission preparation, leaders plan and conduct rehearsals of direct fires (and of the fire control process) based on the estimate of the situation. (See TC 3-20.31-4 for more information.)

DIRECT FIRE STANDARD OPERATING PROCEDURE

3-35. A well-rehearsed direct fire SOP enhances quick, predictable actions by all members of the CAB. The commander bases the various elements of the SOP on the capabilities of the force and on anticipated conditions and situations. SOP elements should include means for—

- Focusing fires.
- Distributing fire effects.
- Orienting forces.
- Preventing fratricide.

FIRE CONTROL MEASURES

3-36. Fire control measures are the means by which the commander or subordinate leaders control fires. Application of these concepts, procedures, and techniques assist the unit in acquiring the enemy, focusing fires on them, distributing the effects of the fires, and preventing fratricide. At the same time, no single measure is sufficient to control fires effectively. Fire control measures are effective only if the entire unit has a common understanding of what they mean and how to employ them. (See ATP 3-21.8 or ATP 3-20.15 for more information.)

3-37. The commander can use terrain-based fire control measures to focus and control fires on a particular point, line, or area, or use threat-based fire control measures to focus and control fires by directing the unit to engage a specific enemy element rather than on a point or area. Fire control measures are listed in table 3-1.

Table 3-1. Common offensive fire control measures

Terrain-Based Fire Control Measures	*Threat-Based Fire Control Measures*
Target reference point (TRP)	**Rules of engagement**
Sector of fire	**Weapons ready posture**
Direction of fire	**Weapons safety posture**
Terrain-based quadrant	**Weapons control status**
Friendly-based quadrant	**Engagement priorities**
Restrictive fire line (RFL)	**Fire patterns**
Maximum engagement line (MEL)	Engagement techniques
Engagement area (EA)	Triggers
Final protective line (FPL)	Target array
Note. Likely offensive fire control measures are in bold print; other control measures are less likely in the offense.	

TERRAIN-BASED FIRE CONTROL MEASURES

3-38. The commander uses terrain-based fire control measures to focus and control fires on a particular point, line, or area rather than on a specific enemy element. The following paragraphs describe the tactics, techniques, and procedures associated with this type of control measure.

TARGET REFERENCE POINT

3-39. A TRP is a recognizable point on the ground that leaders use to orient friendly forces and to focus and control direct fires. In addition, when TRPs are designated as indirect fire targets, they can be used to call for and adjust indirect fires. Leaders designate TRPs at probable enemy locations and along likely avenues of approach. These points can be natural or man-made. A TRP can be an established site, such as a hill or a building, or an impromptu feature designated as a TRP on the spot, like a burning enemy vehicle or smoke generated by an artillery round. TRPs should not be the enemy's templated locations or vehicle positions. Friendly units can also construct markers to serve as TRPs. Ideally, TRPs should be visible in three observation modes (unaided, passive-infrared, and thermal) so all forces can see them. Examples of TRPs include the following features and objects:

- Prominent hill mass.
- Distinctive building.
- Observable enemy position.
- Destroyed vehicle.
- Ground-burst illumination.
- Smoke round.

SECTOR OF FIRE

3-40. A sector of fire is a defined area that must be covered by direct fire. Leaders assign sectors of fire to subordinate elements, crew-served weapons, and individual Soldiers to ensure coverage of an area of responsibility. Leaders may also limit the sector of fire of an element or weapon to prevent accidental engagement of an adjacent unit. In assigning sectors of fire, commanders and subordinate leaders consider the number and types of weapons available. In addition, they must consider acquisition system type and field of view in determining the width of a sector of fire. Means of designating sectors of fire include—

- TRPs.
- Clock direction.
- Terrain-based quadrants.
- Friendly-based quadrants.

DIRECTION OF FIRE

3-41. A direction of fire is an orientation or point used to assign responsibility for a particular area on the battlefield that must be covered by direct or indirect fire. Leaders designate directions of fire for the purpose of acquisition or engagement by subordinate elements, crew-served weapons, or individual Soldiers. Direction of fire is most commonly employed when assigning sectors of fire would be difficult or impossible because of limited time or insufficient reference points. Means of designating a direction of fire include the following:

- Closest TRP.
- Clock direction.
- Cardinal direction.
- Tracer on target.
- Infrared laser pointer.

QUADRANT METHOD

3-42. The quadrant method subdivides an area by superimposing an imaginary pair of perpendicular axis over the terrain to create four separate areas or sectors. Units can base quadrants on the terrain, on friendly forces, or on the enemy formation.

3-43. The unit TACSOP establishes the method of quadrant numbering; however, units must take care to avoid confusion when quadrants based on terrain, friendly forces, and the enemy formations are used simultaneously.

- Terrain-based quadrant. A terrain-based quadrant entails use of a TRP, either existing or constructed, to designate the center point of the axis that divide the area into four quadrants. This technique can be employed in offensive and defensive operations. In the offense, the commander designates the center of the quadrant using an existing feature or by creating a reference point (for example, using a ground burst illumination round, a smoke marking round, or a fire ignited by incendiary or tracer rounds). The axis delineating the quadrants run parallel and perpendicular to the direction of movement.
- Friendly-based quadrant. The friendly-based quadrant technique entails superimposing quadrants over the unit's formation. The center point is based on the center of the formation, and the axis run parallel and perpendicular to the general direction of travel. For rapid orientation, the friendly quadrant technique may be better than the clock direction method; this is because different elements of a large formation are rarely oriented in the same exact direction and because the relative dispersion of friendly forces causes parallax to the target.

RESTRICTIVE FIRE LINE

3-44. A *restrictive fire line* (RFL) is a specific boundary established between converging, friendly surface forces that prohibits fires or their effects from crossing (JP 3-09). In the offense, the commander may designate an RFL to prevent a base of fire element from firing into the area where an assaulting element is maneuvering. This technique is particularly important when armored vehicles support the maneuver of Infantry squads.

ENGAGEMENT PRIORITIES

3-45. Engagement priorities, which entail the sequential ordering of targets to be engaged, can serve one or more of the following critical fire control functions:

- Prioritize HPTs. In concert with the concept of the operation, the commander determines which target types provide the greatest payoff, then can set these as a unit engagement priority. For example, the commander may decide that destroying enemy mobility and countermobility capabilities is the best way to prevent the enemy from breaching an obstacle.
- Employ the best weapons for the target. Establishing engagement priorities for specific friendly systems increases the effectiveness with which the unit employs its weapons. As an example, the engagement priority for the company team's tanks could be enemy tanks first, then enemy

personnel carriers; this would decrease the chance that the team's lighter systems will have to engage enemy armored vehicles.

- Distribute the unit's fires. Establishing different priorities for similar friendly systems helps to prevent overkill and achieve effective distribution of fires. For example, the commander may designate the enemy's tanks as the initial priority for one IFV platoon while making the enemy's personnel carriers the priority for another platoon. This would decrease the chance of multiple tube launched, optically tracked, wire guided munitions being launched against two enemy tanks while the dangers posed by the personnel carriers are ignored.

WEAPONS READY POSTURE

3-46. The weapons ready posture is a means by which leaders use their estimate of the situation to specify the ammunition and range for the most probable anticipated engagement. The ammunition selection depends on the target type, but the leader may adjust it based on engagement priorities, desired effects, and effective range. Range selection depends on the anticipated engagement range; terrain intervisibility, weather, and light conditions affect range selection. Within the company team, weapons ready posture affects the types and quantities of ammunition loaded in ready boxes, stowed in ready racks, and carried by rifle squads. The following considerations apply:

- For tanks, weapons ready posture is defined as the battle carry.
- For IFVs, weapons ready posture covers the selected ammunition and the indexed range.
- For Infantry squads, weapons ready posture is the selected ammunition and indexed range for individual and crew served weapons. For example, an M320 grenadier, whose most likely engagement is to cover deadspace at 200 meters from the position, might load high-explosive dual-purpose ammunition and set 200 meters on the quadrant sight. To prepare for an engagement in a wooded area where engagement ranges are extremely short, an antiarmor specialist might dismount with an AT4 instead of a Javelin.

WEAPONS CONTROL STATUS

3-47. The three levels of weapons control status (WCS) outline the conditions, based on target identification criteria, under which friendly elements may engage. The commander sets and adjusts the WCS based on friendly and enemy disposition and the clarity of the situation. In general, the higher the probability of fratricide, the more restrictive the WCS. The three levels, in descending order of restrictiveness, are the following:

- Weapons hold. Engage only if engaged or ordered to engage.
- Weapons tight. Engage only targets that are positively identified as enemy.
- Weapons free. Engage any targets that are not positively identified as friendly.

Note. Weapons free: There must always be some positive identification analysis conducted to determine that what is being targeted is a lawful military target.

3-48. As an example, the commander may establish the WCS as "weapons hold" when friendly forces are conducting a passage of lines. By maintaining situational understanding of the elements and adjacent friendly forces, however, the commander may be able to lower the WCS. In such a case, the commander may be able to set a "weapons free" status when there are no friendly elements near the engagement. This permits elements to engage targets at extended ranges even though it is difficult to distinguish targets accurately at ranges beyond 2,000 meters under battlefield conditions.

RULES OF ENGAGEMENT

3-49. ROE are directives issues by competent military authority that delineate the circumstances and limitations under which U.S. forces will initiate and/or continue combat engagement with other forces encountered. They specify the circumstances and limitations under which forces may engage; they include definitions of combatant and noncombatant elements. Factors influencing ROE include national command

policy, the mission and commander's intent, the specific operational environment, and the law of war. Nothing contained in the ROE limits a Soldier's inherent right to self-defense.

WEAPONS SAFETY POSTURE

3-50. Weapons safety posture is an ammunition-handling instruction that enables the commander to precisely control the safety of the unit's weapons. Leaders' supervision of the weapons safety posture, as well as Soldiers' adherence to it, minimizes the risk of negligent discharge and fratricide. Table 3-2 outlines procedures and considerations for the CAB using the four weapons safety postures, listed in ascending order of restrictiveness:

- Ammunition loaded.
- Ammunition locked.
- Ammunition prepared.
- Weapons cleared.

3-51. In setting and adjusting the weapons safety posture, the commander must weigh the desire to prevent negligent discharges against the requirement for immediate action based on the enemy threat. If the threat of direct contact is high, for example, the commander may establish the weapons safety posture as "ammunition loaded." If the requirement for action is less immediate, the commander may lower the posture to "ammunition locked" or "ammunition prepared." Additionally, the commander may designate different weapons safety postures for different elements of the unit. For example, in the attack position, tanks and IFVs may switch to "ammunition loaded" while rifle squads riding in IFVs remain at "ammunition locked."

Table 3-2. Weapons safety posture levels

Safety Posture	*Tank Weapons and Ammunition*	*IFV Weapons and Ammunition*	*Individual and Crew Weapons and Ammunition*
Ammunition Loaded	Main gun ammunition loaded. Machine gun ammunition on feed tray, bolt locked to rear. Smoke grenades in launchers. Weapons on electrical safe.	25-mm rounds cycled to the bolt. Coax rounds on feed tray, bolt locked to the rear. TOW missiles in launchers. Weapons on electrical safe.	Rifle rounds chambered. Machine gun and SAW ammunition on feed tray, bolt locked to rear. Grenade launcher loaded. Weapons on manual safe.
Ammunition Locked	Main gun ammunition in ready rack. Machine gun ammunition on feed tray, bolt locked forward. Smoke grenades in launchers. Weapons on electrical safe.	25-mm rounds loaded in feeder but not cycled to the bolt. Coax rounds on feed tray, bolt locked to the rear. TOW missiles in launchers. Smoke grenades in launchers. Weapons on electrical safe.	Magazines locked into rifles. Machine gun and SAW ammunition on feed tray, bolt locked forward. Grenade launcher unloaded.
Ammunition Prepared	Main gun ready rack filled. Machine gun ammunition boxes filled. Smoke grenades in launchers.	25-mm ready boxes filled. Coax ammunition boxes filled. TOW missiles in launchers. Weapons on electrical safe.	Magazines, ammunition boxes, launcher grenades, hand grenades prepared but stowed in pouches/vests.
Weapons Cleared	Main gun ready rack filled. Machine guns cleared with bolts locked to the rear.	25-mm feeder removed, feeder and chamber cleared. Coax bolt group removed and chamber cleared.	Magazines, ammunition boxes, and launcher grenades removed, weapons cleared.
Legend: IFV – Infantry fighting vehicle; mm – millimeter; SAW – squad automatic weapon; TOW – tube launched, optically tracked, wire guided			

ENGAGEMENT TECHNIQUES

3-52. Engagement techniques are effects-oriented fire distribution measures. The most common engagement techniques in offensive operations are—

- Time of suppression.
- Reconnaissance by fire.

Time of Suppression

3-53. The commander may specify the time period required for the enemy unit or weapons system to remain degraded and prevented from placing fires on the maneuvering unit. This is the "time of suppression." Suppression time is typically dependent on the time it will take a supported element to maneuver. Normally, a unit suppresses an enemy position using the sustained rate of fire of its automatic weapons. In planning for sustained suppression, leaders must consider several factors: the estimated time of suppression, the size of the area being suppressed, the type of enemy force to be suppressed, range to the target, rates of fire, and available ammunition quantities. The following example lists steps that a unit might take in calculating time of suppression capabilities:

- The IFVs in a mechanized Infantry platoon are given the task of suppressing an area to support the assault of another element.
- One IFV, firing 25-mm high-explosive incendiary tracer ammunition at a sustained rate of 60 rounds per minute, expends 180 rounds (capacity of the large ready box, minus sufficient rounds for easy reloading) in three minutes.
- Given an adjusted basic load of 720 rounds of high-explosive ammunition, a single IFV can sustain fire for four periods of three minutes, requiring three reloads of 180 rounds into the large ready box.
- An IFV crew, using a loader in the troop compartment, can reload the large ready box with 180 rounds in about three minutes if the ammunition is already prepared for loading.
- Using an individual IFV's sustained rate of fire of 60 rounds per minute and alternating the fire of sections to permit reloading (one section fires for three minutes while the other reloads), the platoon can sustain 120 rounds per minute for 24 minutes.

Reconnaissance by Fire

3-54. Reconnaissance by fire is a method of reconnaissance in which fire is placed on a suspected enemy position to cause the enemy to disclose a presence by movement or return of fire. The enemy response permits the commander and subordinate leaders to make accurate target acquisition and then to mass fires against the enemy element. Typically, the commander directs a subordinate element to conduct the reconnaissance by fire. For example, the commander may direct an overwatching platoon to conduct the reconnaissance by fire against a probable enemy position before initiating movement by a bounding element.

OFFENSIVE OPERATIONS

3-55. There are four offensive operations: MTC, attack, exploitation, and pursuit. The CAB can plan and conduct an MTC and an attack independently but can only participate in an exploitation or pursuit as part of a larger operational force.

MOVEMENT TO CONTACT

3-56. *Movement to contact* is a type of offensive operation designed to develop the situation and to establish or regain contact (ADP 3-90). It creates favorable conditions for subsequent tactical actions. The commander conducts an MTC when the enemy situation is vague or not specific enough to conduct an attack. Forces executing this task seek to make contact using the smallest friendly force feasible. An MTC may result in a meeting engagement. Movements to contact include search and attack and cordon and search operations.

ATTACK

3-57. An *attack* is a type of offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both (ADP 3-90). Attacks incorporate coordinated movement support by direct and indirect 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 an MTC because enemy main body dispositions are at least partially known, which allows the commander to achieve greater synchronization. This enables the massing of effects of its combat power more effectively than in an MTC.

EXPLOITATION

3-58. *Exploitation* is a type of offensive operation that usually follows a successful attack and is designed to disorganize the enemy in depth (ADP 3-90). Exploitations seek to disintegrate enemy forces to the point where they have no alternative but surrender or take flight. Exploitations take advantage of tactical opportunities, foreseen or unforeseen. Division and higher headquarters normally plan exploitations as branches or sequels.

PURSUIT

3-59. A *pursuit* is a type of offensive operation designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it (ADP 3-90). A pursuit normally follows a successful exploitation. However, any offensive operation can transition into a pursuit if it is apparent that enemy resistance has broken down entirely and the enemy is fleeing the battlefield. Pursuits entail rapid movement and decentralized control. Division and higher headquarters normally plan pursuits as branches or sequels.

SECTION II – MOVEMENT TO CONTACT

3-60. MTC is designed to develop the situation and establish or regain contact using the smallest force possible. It ends when units make contact. The CAB conducts an MTC when the tactical situation is not clear or when the enemy has broken contact.

3-61. A CAB uses the minimal number and type of control measures possible in an MTC because of the uncertain enemy situation. These measures include designation of an AO with left, right, front, and rear boundaries, or a separate AO bounded by a continuous boundary (noncontiguous operations). The operation usually starts from an LD at the time specified in the OPORD. The commander controls the MTC by using phase lines, contact points, and checkpoints as required.

3-62. The commander controls the depth of the MTC by using an LOA or a forward boundary. The commander could designate one or more objectives to limit the extent of the MTC and orient the force. However, these are often terrain-oriented and used only to guide movement. Commanders may use an axis of advance in limited visibility. However, there is the risk of enemy forces outside the axis not being detected, and thus being inadvertently bypassed. The CAB conducts MTC in a manner that allows it to maneuver and fully develop the situation, maintain freedom of action, and, if possible, to defeat the enemy once contact is made.

3-63. A meeting engagement is a combat action that occurs when the CAB meets with and engages a sizable enemy force at an unexpected time and place or as the result of an MTC. The enemy force may be moving or stationary. The goal, once in contact, is to maneuver quickly to overcome the enemy before they can react.

3-64. This requires the CAB commander to keep the force in a posture ready to react immediately to contact and develop the situation. Subordinate companies must quickly react to contact, develop the situation, report, and gain a position of advantage over the enemy to give the battalion time and space to act effectively. The battalion's success depends on its subordinate units' initiative and ability to develop the situation effectively. Prompt execution of battle drills at platoon level and below, and standard actions on contact for larger units, can give that initiative to the friendly force. Techniques include—

- When the lead element makes initial contact with the enemy, it must quickly determine the size and activity of the enemy force and avoid being fixed or destroyed.

- If the enemy is moving, the friendly force making initial contact determines the direction of movement and the size and composition of the force. Forward observers (FOs) place fires on the lead enemy forces. Speed of decision and execution is critical when the enemy is moving.
- If the enemy is stationary, the friendly force determines whether the enemy force is occupying prepared positions and whether they are reinforced by obstacles and minefields. The friendly force attempts to identify antitank weapon positions, the enemy's flanks, and gaps in their positions.
- The battalion advance guard moves quickly to overpower and destroy platoon-sized and smaller enemy security forces. Larger enemy forces normally require deployment of the main body. The advance guard protects the main body by fixing enemy forces larger than platoon size, which allows the battalion main body to retain its freedom to maneuver. Flank security may need to be enhanced through the employment of countermobility assets.
- In developing the situation, the advance guard commander maintains pressure on the enemy by fire and maneuver. The advance guard probes and conducts a vigorous reconnaissance of the enemy's flanks to determine the enemy's exact location, composition, and disposition. The advance guard immediately transmits this information to the CAB commander and main body units.

3-65. The battalion commander uses this information to develop a plan of action by selecting a maneuver option from the several actions-on-contact options developed during planning:

- Attack.
- Defend.
- Bypass.
- Delay.
- Withdraw once making contact with enemy forces.

ORGANIZATION OF FORCES

3-66. An MTC is organized with a forward security force, an advance guard, and a main body as a minimum. Based off METT-TC, the CAB normally organizes into a security force, advance guard, main body, flank guard, and rear guard.

SECURITY FORCES

3-67. The security force for the CAB is normally the scout platoon. Engineers and FOs are attached to the security force as necessary. The security force normally has initial priority of indirect fires. The mission of the security force is to determine the size, activity, location, and depth of the enemy force. Other tasks include—

- Reconnaissance of routes, bridges, and roads.
- Reconnaissance of obstacles and restrictive terrain.
- Surveillance of NAIs.
- Identify key terrain.

3-68. The security force must cover the frontage of the battalion axis of advance. The security force avoids decisive engagement, but once it finds the enemy, it must maintain contact and report activity.

3-69. The security force must be far enough ahead of the advance guard to provide adequate warning and sufficient maneuver area. However, the security force must not be so far ahead that the advance guard cannot rapidly assist it in disengaging from the enemy. The advance guard keys its movement on the movement of the security force.

3-70. The security force must be able to receive the latest information available from the BCT as well as information available from the BCT S-2 and any other surveillance capabilities. With this information, the security force can confirm intelligence provided by these capabilities and reduce the risks normally associated with an MTC.

ADVANCE GUARD

3-71. The advance guard for a CAB is usually a company team. Its composition depends on METT-TC factors. In open terrain, it may move mounted; in restricted, close, complex, or urban terrain, dismounted movement with vehicles in the overwatch may be a better choice. Engineers follow or are attached to the lead elements. The two lead company teams are task-organized accordingly when a battalion moves in parallel columns.

3-72. The advance guard operates forward of the battalion main body to provide security and ensure its uninterrupted advance. It protects the main body from surprise attack and develops the situation to protect the deployment of the main body when it is committed to action. The advance guard—

- Maintains combat information on the entire CAB, especially the security force.
- Reports enemy contact to the battalion commander.
- Destroys or repels all enemy reconnaissance forces.
- Attempts to penetrate enemy security elements, and reach or identify the enemy main body.
- Prevents the enemy from engaging the main body with direct fires.
- Selects tentative fighting positions for following battalion units.
- Locates, bypasses, or breaches obstacles along the main body's axis of advance.
- Executes tactical tasks, such as fix, seize, or block, against enemy forces to develop the situation for the main body.
- Ensures that all pertinent information is passed to the rest of the battalion.

3-73. The advance guard is the CAB commander's main effort until the main body is committed; then, priority of fires shifts to the main body. In planning the MTC, each DP should be based on the actions of the advance guard.

MAIN BODY

3-74. The main body contains the bulk of the battalion's combat elements and is arrayed to achieve all-around security. The combat elements of the main body are prepared to deploy and maneuver rapidly to a decisive point on the battlefield to destroy the enemy.

3-75. The main body keys its movement to the advance guard. It maintains information of the advance guard's activities via voice radio or digital communication. The main body, remaining attuned to the advance guard's situation, provides responsive support when the advance guard is committed.

3-76. The use of standard formations and battle drills allows the CAB commander, based on the information available, to shift combat power rapidly on the battlefield. Company teams employ the appropriate movement techniques within the battalion formation. Company commanders, based on their knowledge of the commander's intent and their own situational understanding, anticipate the battalion commander's decisions for commitment of the main body and plan accordingly.

FLANK AND REAR SECURITY

3-77. To provide flank security, platoon-size elements from one or more of the company teams in the battalion main body provide a moving flank screen under company team control. These elements remain at a distance from the main body; this allows the CAB time and space to maneuver to either flank. Flank security elements also operate far enough out to prevent the enemy from surprising the main body with direct fires. Indirect fires are planned on major flank approaches to enhance security. One platoon pulled from the main body may provide rear security, but combat forces are not normally available to perform this mission. The CAB provides its own rear security, assisted by rapid forward movement, which gives the enemy less opportunity to react or reposition forces to attack the battalion. (See figure 3-10.)

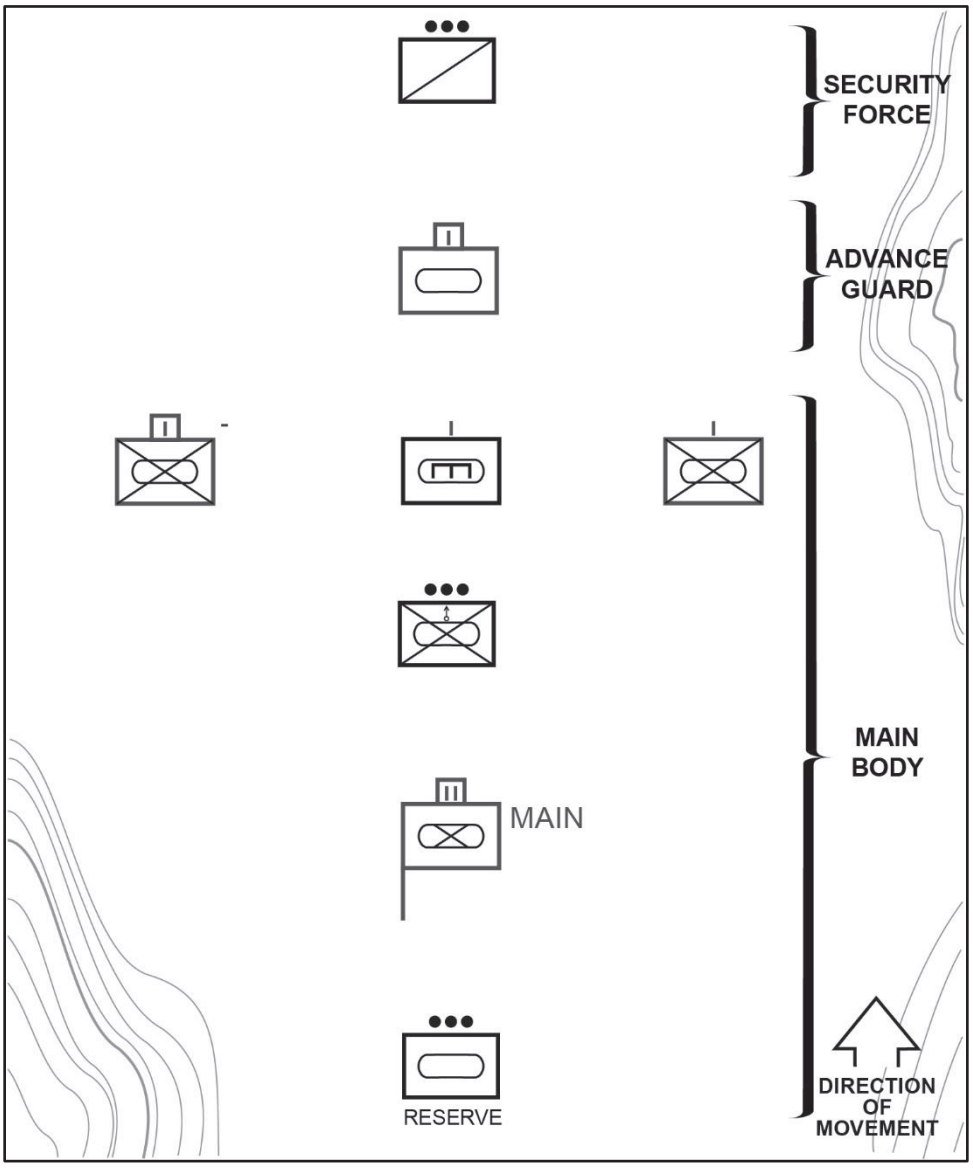


Figure 3-10. Combined arms battalion movement to contact

PLANNING

3-78. An MTC is one of the most difficult missions for staffs to plan. The goal is to prevent a meeting engagement with the enemy. Planning must allow for flexibility and promote subordinate initiative. Planning begins by developing the concept of the operation with a focus on ultimate control of the objective and conducting reverse planning from the objective to the LD. This is accomplished by issuing a clear commander's intent, developing a simple concept of operations, and developing a series of DPs to execute likely maneuver options. Increased emphasis is placed on developing an aggressive and flexible reconnaissance effort that is linked to the commander's PIR, which normally focuses on locating and gathering information about the enemy's strength, disposition, and activities. Rapid exchange of relevant information between the CAB and the BCT is critical. Collection actions result in information dominance and, once established, can convert the MTC into an attack.

INTELLIGENCE

3-79. The intelligence officer staff assisted by the engineer and air defense staff representatives, must carefully analyze the terrain to include air avenues of approach for an MTC. The intelligence staff identifies the enemy's most dangerous COA in the war gaming portion of the MDMP. Because of the force's vulnerability, the intelligence staff must not underestimate the enemy during an MTC. A thorough IPB—by developing the modified combined obstacle overlay to include intervisibility overlays and other products, such as the event templates—enhances the force's security by indicating danger areas where the force is most likely to make contact with the enemy. It also helps to determine movement times between phase lines and other locations. Potential danger areas are likely enemy defensive locations, EAs, OPs, and obstacles. The fires system targets these areas, and they become on-order priority targets placed into effect and cancelled as the lead element can confirm or deny enemy presence.

Scout Platoon

3-80. The scout platoon is designed to satisfy the CAB's CCIR. It is the element that can be committed the quickest. Scouts are used to reconnoiter AOIs and to link with the BCT. They are also used to confirm and identify enemy locations, orientations, and dispositions. Scouts report their observations and significant changes in enemy activity before, during, and after the MTC.

Sniper Squad

3-81. Once the enemy has been located, sniper teams can be used to maintain contact through observation or to deny enemy access to key terrain through controlled precision fires, thus preventing enemy surprise attacks.

UAS Teams

3-82. UAS teams can prevent large enemy units from surprising the main body. After making contact, UAS teams can maintain contact with ground scouts, reconnoiter elsewhere, or move to a vantage point that avoids decisive engagement.

3-83. Units must remember to account for the airspace above the CAB's AO. They should be alert for enemy attack aviation and UAS during movements through choke points, bridges, and other restrictive terrain.

COMMAND AND CONTROL

3-84. The effective use and integration of available analog and digital systems enhance the CAB's ability to conduct parallel and collaborative planning with higher and subordinates, as well as ensure a greater understanding of the plan. Many of the digital systems must be stationary or LOS and, therefore, are limited during movement. However, during planning and preparation the staff should maximize its use, while preparing for its limited use during execution. The information systems and networks should allow the staff to—

- Maintain continuous lower tactical internet communication with higher headquarters and subordinate units.
- Establish and maintain upper tactical internet communications when the main CP is stationary.
- Maintain a digital COP using the Army Battle Command System with an analog backup and on-the-move capability.
- Maintain a parallel and collaborative planning capability.

3-85. One technique that ensures the transfer of the main CP functions goes smoothly is to integrate the planned displacement of the main CP into the DST for the CAB. Detailed planning in coordination with the S-3 (scheme of maneuver) and the S-6 (concept of communications support) should enable the battalion to determine the optimal time to displace the main CP. This helps to ensure that the main CP reestablishes adequate communication with higher and subordinate units during the decisive operation.

3-86. The CAB staff must be prepared and resourced to execute C2 warfighting function tasks regardless of the availability of digital systems. Sometimes the tactical situation precludes the effective use of digital

systems. Therefore, it is paramount that the CAB staff train and rehearse analog methods (such as voice radio) of executing C2 over the subordinate units. The staff also can use voice radio communications to meet the reporting requirements of higher headquarters. The main and alternate CPs must have the necessary tools they need to execute C2 warfighting function tasks in an analog environment. Such tools include paper maps, overlays, and status chart boards.

MOVEMENT AND MANEUVER

3-87. The plan for a battalion MTC should be flexible and promote subordinate initiative. Developing a simple scheme of maneuver, issuing a clear commander's intent, and developing plans to execute likely maneuver options that may occur during execution contribute to flexibility and subordinate initiative. Commanders must visualize the AO and employ the right force at the right place and time to achieve the desired effect.

3-88. When developing the concept, the CAB commanders anticipate where they are likely to meet the enemy, and then determine how they intend to develop the situation that leads to an attack under favorable conditions (hasty attack). The commander must attempt to visualize this process during the mission analysis and consider the active and passive responses to enemy contact. The commander focuses on determining the battalion's organization and formation that best retains the freedom of action on contact and supports the concept against known or anticipated enemy forces.

3-89. The battalion commander and staff develop plans for the maneuver options of attack, defend, bypass, delay, or withdraw once making contact with enemy forces based on the higher commander's intent and the situation. They define the conditions in terms of enemy and friendly strengths and dispositions that are likely to trigger the execution of each maneuver option. They identify likely locations of engagements based on known or suspected enemy locations. The commander states the bypass criteria for the advance guard and must recognize the loss of tempo created by fighting every small enemy force encountered with the lead element. The advance guard may attack small enemy forces that it can quickly destroy without losing momentum, but it is best that the advance guard bypass larger or more stubborn enemy forces and allow its engagement by the main body.

3-90. Areas of likely contact, known enemy positions, and areas that are potentially dangerous to the CAB (such as potential ambush locations, obstacles, and open areas) require close planning consideration. The staff must carefully plan actions for moving through these danger areas quickly and securely.

3-91. The scheme of maneuver covers the battalion's actions from prior to LD planning and preparation to consolidation and reorganization. The scheme of maneuver paragraph within the OPORD should address the following:

- Task and purpose of subordinate elements.
- Actions at known or likely enemy contact locations.
- Scheme of fires.
- Direct and indirect fire control measures.
- Engagement or disengagement criteria.
- CCIR.
- Methods for moving through and crossing dangerous areas.
- Bypass criteria.
- The battalion's formation and known locations where the formation will change.
- Actions and array of forces at the final objective or LOA.
- DPs and criteria for execution of maneuver options that may develop during execution.

3-92. The following fundamentals guide the development of the scheme of maneuver for an MTC:

- Focus all efforts on finding the enemy by developing a strong reconnaissance effort and employing robust security forces.
- Make contact with electronic or unmanned means first. If that is not possible, make contact with the smallest force possible, consistent with protecting the force.

- Make initial contact with small, mobile, self-contained forces to avoid decisive engagement of the main body. This procedure allows the commander maximum flexibility to develop the situation.
- Task-organize the force and use movement formations that enable the CAB to deploy and attack rapidly in any direction.
- Maintain the ability to mass direct and indirect fires rapidly in any direction.
- Keep forces within supporting distances to facilitate a flexible response.
- Maintain contact regardless of the maneuver option adopted.
- Rely on TACSOPs and drills to develop the situation and maintain tempo. The key is swift massing of all available combat power against the enemy once contact is made.
- Develop a flexible scheme of maneuver since the location of the engagement with the enemy is not known. Flexibility is achieved by incorporating multiple DPs and triggers into the plan based on likely engagement locations.

3-93. Priority of engineer support is typically mobility, although it may rapidly change to countermobility in anticipation of an enemy attack. Engineer teams may join the reconnaissance and security forces to reconnoiter obstacles, based on METT-TC. Additional combat engineers may also travel with the advance guard to assist in assuring the mobility of the advance guard and main body. The CAB commander may plan situational obstacles as part of the countermobility effort in order to support the security forces and the advance guard.

3-94. The following are key considerations for the scheme of engineer operations:

- Task-organized engineer early to supported maneuver units to conduct technical reconnaissance, lane reduction, or gap crossing.
- Ensure the reconnaissance plan integrates the collection of known or templated obstacle and other terrain information and is focused to verify critical information.
- Maintain the flexibility to mass reduction capabilities to breach complex obstacles.
- Plan obstacle control measures and situational obstacles to support flank security. Develop and adjust obstacle locations and triggers for execution based on the battalion's movement and the enemy situation.
- Develop plans for the handover of marked obstacles, lanes, and bypasses.

FIRES

3-95. Priority of fires are allocated to the advance guard. The fire support coordinator in coordination with the BCT S-3 positions field artillery units to provide continuous indirect fires for the moving CAB. Army attack helicopters and CAS may be available to interdict enemy counterattack forces or destroy defensive positions. Given the BCT's emphasis on proactive counterfires and the likelihood for operating in close terrain, the CAB may need to rely on its organic mortars.

3-96. The CAB mortars may be placed under the OPCON of the advance guard, based on METT-TC, to provide responsive fires and obscuration to support initial actions on contact or may be controlled by the battalion commander or FSO in support of the entire battalion effort. In either case, it is likely that the advance guard will receive initial mortar priority of fires.

3-97. The following are key considerations for the fire support plan:

- Facilitate responsive and decentralized fires by establishing a clear understanding of the essential tasks for fire support in each phase of the operation. This understanding is critical to the success of the fire support plan.
- Echelonment of fires on or around the objective (see chapter 8 for more information).
- Upon contact, the battalion shifts control of all available fires to the observer who is in the best position to control fires against the enemy.
- Plan targets based on known or suspected enemy locations and danger areas and to support future operations.
- Refine targets based on the reconnaissance effort as the operation progresses.

- Maximize the use of priority targets along the axis of advance and plan triggers to put these targets into effect and cancel them based on the movement of the battalion.
- Ensure immediate responsive fire support to the lead elements by assigning priority of fires to the security force and the advance guard.
- Synchronize the movement and positioning of artillery, mortar capabilities with the tempo of the battalion, and the fire support requirements.
- Position observers and forward air controllers effectively and maximize the use of lead maneuver forces to call for fires since they often have the best view of the enemy.
- Observers must understand the essential tasks for fire support for each phase of the operation.

SUSTAINMENT

3-98. The main purpose of sustainment in the offense is to maintain the momentum. Sustainment determines the depth, duration, and endurance of Army operations, and plays a key role in enabling decisive action. Failure to provide adequate sustainment during offensive operations can result in a tactical pause, culmination of offensive operations, and prevent consolidation of gains. Operational and sustainment planners at each echelon of command work closely to synchronize sustainment support to allow commanders the freedom of action to maneuver and provide extended operational reach for the offense. If offensive momentum is not maintained, the enemy may recover from the shock of the first assault, gain the initiative, and mount a successful counterattack. Therefore, the sustainment priority must be to maintain the momentum of the offense. A key part of the plan is the sustainment overlay produced by the S-4 and reviewed by the XO. This overlay ensures that the supported units and the sustainment executers know the location of all support assets in relation to the maneuver units and maximizes the support given.

3-99. Sustainment planners (S-1, S-4, medical officer, XO, commander) must be able to anticipate requirements, improvise solutions, and be responsive and continuous. During the operations process, commanders and staff must plan, prepare, execute, and continuously assess sustainment support for the CAB to include attached elements, such as an engineer company.

3-100. The objective of sustainment is to provide support as far forward as possible without disrupting operations. Sustainment priorities are identified in the CAB OPORD. The CAB commanders expect higher consumption of class V and class III during the offense. Casualties increase during the offense and this makes CASEVAC and MEDEVAC critical. The FSC provides supply support to the CAB and maintains pace with the CAB as its companies maneuver during the offense. The near real time information provided by digital communication enhances support.

3-101. The commander and S-4 might determine that the mission requires additional classes III and V support be positioned forward at the combat trains. (See chapter 6.) If the CAB is widely dispersed, the FSC may position resupply of classes III and V forward at LRPs, rather than a centralized combat trains.

3-102. FSC maintenance teams are positioned with companies to perform field maintenance repair of combat vehicles. Equipment that cannot be repaired quickly is evacuated to the MCP. MCPs should be located on the main axis or main supply routes (MSRs). In addition, the S-4 may request heavy equipment transport to assist in rearward evacuation.

3-103. Medical treatment focuses on stabilization and rapid MEDEVAC of patients. Although each maneuver company generally has an ambulance team, the CAB may receive additional wheeled ambulance teams from the medical company (BSB), to expedite the evacuation of casualties to the brigade support medical company (known as BSMC). These ambulances may be held at the BAS or dispersed to AXPs. The CAB also plans the use of non-standard evacuation vehicles.

3-104. The following are key considerations for the sustainment plan:

- Continuously update the sustainment plan based on status of units and ensure the plan is responsive and flexible enough to support all maneuver options.
- Plan support from initiation of the operation to the final objective or LOA.
- Integrate support from the BSB to reinforce the support provided by the FSC. This may include classes III, V, and IX support, medical treatment and ground ambulance teams to provide HSS, and maintenance and recovery teams.

- Consider risks that extended distances create for security of MSRs and sustainment capabilities based on the potential of undetected or bypassed enemy forces.
- Integrate sustainment with the trains' security plan.
- Develop and maintain an accurate enemy picture behind the lead maneuver elements.
- Plan and coordinate the locations, displacements, and routes of sustainment capabilities to maintain responsive support.
- Plan and coordinate for aerial resupply.

PROTECTION

3-105. During the offense, protection is applied carefully and selectively to ensure it does not have a debilitating effect on the commander's freedom of action. This is done through the integration and synchronization of protection tasks. Protection tasks are integrated with other combat power elements and synchronized simultaneously or sequentially where and when significant threats and hazards are projected in the offensive plan.

3-106. ADA units are a limited resource. Available ADA resources will be dedicated to the protection of capabilities that the ABCT commander deems critical to the success of the tactical plan, leaving other assets without dedicated ADA coverage. Units with or without dedicated ADA support must contribute to their own defense against air attack. (See ATP 3-01.18 for more information.)

3-107. Offensive operations will result in large numbers of detainees, categorized as EPWs. Entire enemy units separated and disorganized from shock and intense combat maybe captured. These large numbers of detainees will place a tremendous burden on maneuver forces. Available military police or designated detainee processing teams take control of detainees as far forward as possible to ensure the freedom of movement and maneuver and the safe and humane treatment of detainees under United States control.

3-108. Area security operations support offensive operations by providing a response capability to base clusters and sustainment areas and to designated geographical areas such as routes, bridge sites, or lodgments. Additionally, area security operations allow commanders to provide protection to critical capabilities without a significant diversion of combat power. During the offense, various military organizations may be involved in conducting area security operations in an economy-of-force role to protect lines of communications (LOCs), convoys, or critical fixed sites and radars.

3-109. The commander integrates CBRN considerations into all types of mission planning. The CBRN officer provides technical advice to the CAB commander and staff to maximize CBRN hazard awareness and understanding. The employment of CBRN reconnaissance and surveillance maximizes early warning an employing passive defense measures to mitigate the threat with the least impact on tempo.

3-110. The commander prepares the unit and personnel to operate in a CBRN environment. To do this, the commander ensures the CAB takes the proper protective measures, including—

- CBRN vulnerability analysis.
- Dispersion and use of terrain as shielding.
- Continuous or periodic CBRN monitoring with detection equipment based on CBRN threat.
- Assumption of the appropriate mission oriented protective posture level.

3-111. The following are key considerations for CBRN defense planning:

- Ensure the scout platoon is prepared to conduct CBRN reconnaissance tasks.
- Disseminate or report CBRN threats and hazards information immediately throughout the formation once detected.
- Develop decontamination plans based on the commander's priorities and vulnerability analysis.

PREPARATION

3-112. During preparation for MTC, the battalion continues to refine the enemy situation based on higher intelligence reports and reporting from the CAB scout platoon. The primary concerns are that the battalion commander and staff receive the latest information and that plans are updated to reflect the changes.

3-113. The battalion commander must ensure that subordinates understand the intent and their individual missions as new information becomes available. The commander normally uses backbriefs and rehearsals to ensure the intent is understood and all actions are integrated and synchronized. Simple, flexible plans that rely on TACSOPs and are rehearsed repeatedly against various enemy conditions are essential to success.

INSPECTIONS

3-114. The battalion commander inspects subordinate unit preparations to ensure they are consistent with the intent and concept of operations. The commander emphasizes subordinate plans to move through danger areas, conduct actions on contact, and transition into a maneuver option. The battalion commander ensures each subordinate force understands its assigned mission during the MTC and the potential maneuver options that may develop during execution.

REHEARSALS

3-115. The battalion's leaders rehearse the plan against a wide range of likely enemy COAs that would cause the battalion to execute various maneuver options at different times and locations. The goal of rehearsals is to help prepare commanders to identify DPs that may arise during execution. This promotes flexibility and agility while reinforcing the commander's intent. The commander seeks to rehearse the operation from initiation to occupation of the final objective or LOA. The commander prioritizes the maneuver options and enemy COAs to be rehearsed based on the time available. The focus of the rehearsal is locating the enemy, developing the situation, executing a maneuver option, and exploiting success. The rehearsal must consider the potential of encountering stationary or moving enemy forces. Other actions to consider during rehearsals include—

- Actions to cross known danger areas.
- The advance guard making contact with a small enemy force.
- The advance guard making contact with a large force beyond its capabilities to defeat.
- The advance guard making contact with an obstacle the reconnaissance force has not identified and reported.
- A flank security force making contact with a small force.
- A flank security force making contact with a large force beyond its capability to defeat.
- Bypass criteria and reporting requirements.
- Transition into a maneuver option.

3-116. The type of rehearsal is proportional to the amount of time to plan and prepare for execution. Ideally each type of rehearsal is conducted, but the CAB commander will almost always conduct backbriefs with subordinate commanders and staff. The combined arms and support rehearsal can be done in combination with the backbrief with time permitting. The battle drill or SOP rehearsal are usually conducted at platoon and below. (See FM 6-0 for more information.)

3-117. The seven methods for rehearsals are network, map, sketch map, digital terrain model, terrain model, reduced force, and full dress. These are listed in order of the amount of time, resources, leadership participation, and security risk from least to greatest in order to conduct the rehearsals. Because of the unknowns associated with respect to enemy during an MTC, the execution of rehearsals during preparation is vital to success. (See FM 6-0 for more information.)

EXECUTION

3-118. The battalion moves rapidly to maintain the advantage of an appropriate tempo. However, the battalion commander must balance the need for speed with the requirement for security. This decision is based on the effectiveness of the information collection effort, friendly mobility, effects of terrain, and the enemy's capabilities. The battalion CP continually monitors the location and movement of the security forces through voice reports or FBCB2. This ensures adequate security for the main body and ensures the security forces are within supporting range of the main body, mortars, and artillery. The battalion CP also controls the movement of the FSC, adjusting its movements to meet support requirements, avoid congestion of routes, and ensure responsiveness.

ACTIONS AT OBSTACLES

3-119. Obstacles pose a significant threat to the CAB's momentum. Once a battalion element detects an obstacle, it immediately distributes its location and description. The battalion quickly seeks a secure bypass. If a bypass is available, the unit in contact with the obstacle exploits and marks the bypass; it also digitally distributes the route of the bypass around the obstacle as soon as possible. Usually, enemy forces cover obstacles with fires. Units should approach all obstacles and restrictive terrain with the same diligence with which they approach a known enemy position.

3-120. When the CAB must breach, it takes the steps to execute the breaching fundamentals of suppress, obscure, secure, reduce, and assault (known as SOSRA) to create a breach lane and continue the MTC. Engineers from the main body support the breach team by reducing lanes, improving the marking of lanes, and guiding the main body through the obstacle. Should the unit anticipate breaching or gap crossing, it will require engineer augmentation to support additional breaching. See ATP 3-90.4 for more information about combined arms breaching.

3-121. When mobility degrades due to movement of dislocated civilians, CA or military police capabilities may be employed to redirect the civilians away from the route of advance. The enemy covers this type of obstacle with lethal and nonlethal methods to degrade clearing efforts.

DESTRUCTION OF SMALL ENEMY FORCES

3-122. The battalion destroys small enemy forces with a combination of indirect fire and maneuver. Depending on the battalion commander's bypass criteria, the advance guard may fix small enemy forces and wait for the main body to destroy this force. Once it fixes the enemy, the advance guard leaves a small combat force to contain the enemy until the main body can destroy it.

3-123. The advance guard must provide the location of such a fixed enemy force to the CAB S-3 and S-2, who then distribute the information to all units in the battalion. Detailed crosstalk between main body commanders and advance guard commanders is critical to coordinate actions and avoid fratricide. The advance guard directs or guides the main body elements to the best location to attack the enemy force. Once the battalion destroys the enemy, all forces quickly move to continue the advance.

REPORT AND BYPASS

3-124. If rapid forward movement is required and the BCT commander has authorized bypass of enemy forces, the CAB can bypass. The higher commander establishes bypass criteria that allow the battalion to report and bypass enemy forces of a specific size. When an enemy force meets the bypass criteria, the battalion fixes the enemy force and leaves a small force to maintain contact while the remainder of the battalion continues the advance. Once bypassed, the destruction of the enemy force becomes the responsibility of the battalion's higher commander.

3-125. Bypassed forces present a serious threat to forces that follow the maneuver elements, especially sustainment elements. It is imperative that the battalion CP distributes the location and strengths of enemy forces throughout the CAB AO to enable following units to move around these threats.

MEETING ENGAGEMENT

3-126. A *meeting engagement* is a combat action that occurs when a moving force, incompletely deployed for battle, engages an enemy at an unexpected time and place (ADP 3-90). The enemy force may be moving or stationary. The goal, once in contact, is to maneuver quickly to overcome the enemy before they can react. This requires the CAB commander to keep the force in a posture ready to react immediately to contact and develop the situation. Subordinate companies must quickly react to contact, develop the situation, report, and gain a position of advantage over the enemy to give the battalion time and space to act effectively. The battalion's success depends on its subordinate units' ability to develop the situation effectively. Techniques include—

- When the lead element makes initial contact with the enemy, it must quickly determine the size and activity of the enemy force and avoid being fixed or destroyed. If possible, the friendly force that makes initial contact avoids detection.

- If the enemy is moving, the friendly force making initial contact determines the direction of movement and the size and composition of the force. FOs place fires on the lead enemy forces. Speed of decision and execution is critical when the enemy is moving.
- If the enemy is stationary, the friendly force determines whether the enemy force is occupying prepared positions and whether they are reinforced by obstacles and minefields. The friendly force attempts to identify antitank weapon positions, the enemy's flanks, and gaps in their positions.
- The battalion advance guard moves quickly to overpower and destroy platoon-sized and smaller enemy security forces. Larger enemy forces normally require deployment of the main body. The advance guard protects the main body by fixing enemy forces larger than platoon size, which allows the battalion main body to retain its freedom to maneuver. Flank security may need to be enhanced through the employment of countermobility assets.
- In developing the situation, the advance guard commander maintains pressure on the enemy by fire and maneuver. The advance guard probes and conducts a vigorous reconnaissance of the enemy's flanks to determine the enemy's exact location, composition, and disposition. The advance guard immediately transmits this information to the CAB commander and main body units.
- The battalion commander uses this information to develop a plan of action by selecting a maneuver option from the several actions-on-contact options developed during planning.

MANEUVER OPTIONS

3-127. Timely, accurate, relevant, and predictive intelligence facilitate the battalion commander's selection of the appropriate maneuver option. Usually, the CAB commander makes the final decision for execution of a maneuver option based on the progress of the initial engagement of the advance guard. The battalion MTC generally ends with the commitment of the main body. The following paragraphs provide a general description of the options that may develop after an MTC.

Ambush

3-128. An ambush is effective against a moving or infiltrating force that is not aware of the presence of the battalion. Instead of immediately engaging the enemy, the advance guard (and possibly the lead element of the battalion) moves into hasty attack-by-fire positions oriented on an EA. This option is enabled by accurate information updates and the speed and accuracy with which FRAGORDs and other instructions can be developed and passed. When most of the enemy is in the EA, the battalion uses massed direct and indirect fires and maneuver to attack the enemy.

Attack

3-129. The commander directs an attack when the CAB has greater combat power than the enemy or when the commander assesses the CAB can reach a decisive outcome. The CAB commander quickly develops a scheme of maneuver and concept of fires for the attack and distributes orders to subordinate companies. The commander employs fires, CAS, and situational obstacles. The commander controls the movement, deployment, and possible changes to the task-organization of the CAB forces. The envelopment is normally the most desirable form of maneuver and is used when there is sufficient maneuver space. A penetration is normally used against a stationary enemy force that does not have an assailable flank, such as one in a perimeter defense. After a successful attack, the CAB may continue the MTC or execute other missions as directed by the BCT commander.

Defend

3-130. The commander directs a defense when the CAB has insufficient combat power to attack, to fix the enemy to allow another unit destroy the enemy or prepare for a more deliberate operation. The CAB maneuvers to the best available defensible terrain, either to the front or to the rear. The commander may direct the advance guard, flank, or rear security force to delay an enemy attack to provide time for establishment of the battalion defense. Companies quickly deploy, establish security, array forces, and develop fire and obstacle plans. Special emphasis is placed on flank protection and adjacent unit coordination.

As the enemy attacks, the CAB commander repositions and maneuvers forces to defeat the enemy through massed fires, situational obstacles, and counterattacks. The commander seeks to defeat an attacking enemy force and create the opportunity for offensive action. In some cases, the CAB may need to retain its position to allow the BCT commander time to commit additional forces.

Retrograde

3-131. The commander directs a retrograde when the CAB lacks the combat power to attack or defend, improve a tactical situation, or prevent a worse situation from developing. If other units are behind the CAB, planning and coordination for RPOL are necessary. Lead elements of the CAB establish initial defensive positions while nonessential mobility, protection, and sustainment assets reposition to the rear. Indirect fires, obstacles, and obscurants are employed to assist forward elements with disengagement and displacement. Battalion elements in contact avoid becoming decisively engaged.

SEARCH AND ATTACK

3-132. *Search and attack* is a technique for conducting a movement to contact that shares many of the characteristics of an area security mission (FM 3-90-1). A commander employs this form of an MTC when the enemy is operating as small, dispersed elements whose locations cannot be determined to targetable accuracy by methods other than a physical search, or when the task is to deny the enemy the ability to move within a given area.

3-133. The search and attack are normally conducted at battalion and company level. Since the CAB has a combination of Infantry and Armored elements, it can be employed anywhere in the world in many environments and face regular and irregular threats alike; it is worth discussing the fundamental techniques to conduct a search and attack. The search and attack is conducted for one or more of the following:

- Destroy the enemy. Render enemy units in the AO combat-ineffective.
- Deny the area. Prevent the enemy from operating unhindered in a given area (such as any area the enemy is using for a base camp or for logistics support).
- Protect the force. Prevent the enemy from massing to disrupt or destroy friendly military or civilian operations, equipment, property, and key facilities.
- Collect information. Gain information about the enemy and the terrain to confirm the enemy COA predicted because of the IPB process.

Organization of Forces

3-134. Forces are organized into reconnaissance, fixing, and finishing forces. In a CAB-level search and attack, companies would be assigned AO. The reconnaissance forces can consist of scout, Infantry, sniper, aviation, and EW capabilities. Each company might designate its own reconnaissance forces, or they may be provided by the battalion depending on METT-TC. Either way, it's critical that all forces have an understanding of the COP and that communications and updates are continuous in order to avoid fratricide.

Execution

3-135. The reconnaissance force gains and maintains contact with the enemy while the fixing force blocks routes to isolate the enemy, by preventing its movement, or reinforcement. The fixing force can also attack to disrupt the enemy until the finishing force can maneuver to bring its combat power to bear on the enemy. IFVs, tanks, or a combination of them can serve as the fixing and finishing forces. It is also possible to utilize the movement, or positioning of tanks as part of a deception plan to divert attention, while reconnaissance efforts are undertaken.

3-136. With companies operating within their own AO, they may also be called upon to conduct their own search and attack efforts in their AO within their capability. The commander should dedicate mortar support to the most likely threat and plan for brigade SBFs utilizing TRPs. Other control measures for a search and attack are an AO, objectives, checkpoints, and contact points. (See FM 3-90-1 for more information.)

CORDON AND SEARCH

3-137. The *cordon and search* is a technique of conducting a movement to contact that involves isolating a target area and searching suspect locations within that target area to capture or destroy possible enemy forces and contraband (FM 3-90-1). It is frequently applied during stability operations tasks for a variety of reasons to include capturing personnel, locating weapon caches, gathering combat information, or securing key facility and terrain. The four key elements to the cordon are the command, security, search or assault, and support. Most cordon and search missions are executed at battalion level and below.

3-138. Leaders must carefully consider the local populace during the execution of the cordon and search technique. The offensive nature of cordon and forcible entry of search missions limits the freedom of movement and searching dwellings can provide negative consequences. Organizing cordon and search elements requires extensive mission tailoring and consideration of mission ramifications. Commanders must always be prepared for a civil disturbance.

ORGANIZATION OF FORCES

3-139. In a built-up area, the CAB commander generally divides the area to be searched into zones and assigns a search party in its own area. The cordon includes two security elements: an outer cordon and an inner cordon. The outer cordon is usually the responsibility of the CAB, as it requires a considerable amount of capabilities to control it effectively. The outer cordon includes a security element that encircles the area to prevent entrance and exit and to secure open areas. When necessary, the security element is augmented with the necessary enablers (based on METT-TC) such as linguists and CA specialists. The inner cordon is established by the unit assigned the search mission. The higher headquarters must also establish a QRF element to assist either element, as required.

3-140. The CAB may receive capabilities from the higher headquarters to aid the cordon and search. These same capabilities will also support exploitation operations. These capabilities can include—

- Information collection assets from the Cavalry squadron and the MI company.
- Explosive hazard reduction and creation from engineer units.
- Interrogation, translator, and HUMINT support from the MI company.
- Military information support operations (such as a loudspeaker) and other CA support from attached CA units.
- EW support from the MI company.
- LNOs to assist with HN interaction.

QUICK REACTION FORCE

3-141. A QRF is a mobile force positioned in a nearby area ready to help the search and security elements, if they meet resistance beyond their ability to handle. The reaction force can replace or reinforce either of the other two elements if the need arises. Reaction forces are often a section or platoon-sized element depending on METT-TC. These elements can also support MEDEVAC and vehicle recovery operations. In short, the QRF should be prepared to assist with multiple contingencies as prescribed by the commander.

SECTION III – ATTACK

3-142. An attack destroys or defeats enemy forces, seizes and secures terrain, or both. When the commander decides to attack or the opportunity to attack occurs during combat operations, the execution of that attack must mass the effects of overwhelming combat power against selected portions of the enemy force with a tempo and intensity that cannot be matched by the enemy. Situational understanding enables the CAB commander to choose the places where to attack the enemy, places where the enemy is weak and least prepared for an attack, and where the battalion has the greatest opportunity for success. Attackers must be determined to seek a decision on the ground of their choosing through the deliberate synchronization and employment of the combined arms team.

3-143. An attack can be either deliberate or hasty. The main difference between a deliberate and a hasty attack is time; time to prepare, time to plan, and time to rehearse. Deliberate operations are characterized by

detailed planning based on available information, thorough reconnaissance, preparation, and rehearsals. The CAB conducts a hasty offensive operation:

- After a successful defense or as part of a defense.
- As a result of an MTC, a meeting engagement, or a chance contact during a movement.
- In a situation in which the unit has the opportunity to attack vulnerable enemy forces.

3-144. An attack at the battalion level is a type of offensive action that is characterized by close combat, direct fire, maneuver, and support from indirect fires. The following paragraphs discuss the tactics for conducting:

- A force-oriented attack against a stationary enemy force.
- A force-oriented attack against a moving enemy force.
- A terrain-oriented attack.

ORGANIZATION OF FORCES

3-145. Attacks may direct the rapid execution of battle drills by forces immediately available or follow detailed plans and orders. At one extreme, the battalion discovers the general enemy situation through an MTC and launches an attack as a continuation of the meeting engagement to exploit a temporary advantage in relative combat power and to preempt enemy actions. At the other, the battalion moves into an attack from a reserve position or AA with detailed knowledge of the enemy, a task-organization designed specifically for the attack, and a fully rehearsed plan. Most attacks fall somewhere on this continuum.

3-146. The commander task-organizes forces within the battalion after choosing a scheme of maneuver. The task-organization allocates sufficient combat power to allow subordinate companies to accomplish their assigned tasks. The commander normally organizes the force into a security force, a main body, and a reserve, all supported by some type of sustainment. The commander should complete any changes in task-organization in time to allow units to conduct rehearsals with their attached and supporting elements. The best place and time for an attacking force to task-organize is when it is in an AA.

SECURITY FORCES

3-147. A commander can resource a dedicated security force during an attack only if the attack will uncover one or more flanks or the rear of the attacking force as it advances. Normally, an attacking unit does not need extensive forward security forces. Most attacks are launched from positions in contact with the enemy, which reduces the usefulness of a separate forward security force. The exception occurs when the attacking unit is transitioning from the defense to an attack and had previously established a security area as part of the defense.

MAIN BODY

3-148. The commander organizes the main body to conduct the decisive operation and necessary shaping operations. The commander aims the decisive operation toward the immediate destruction of the enemy force, its will to resist, seizure of a terrain objective, or the defeat of the enemy's plan. The maneuver scheme identifies the focus of the decisive operation. All of the force's available resources operate in concert to assure the success of the decisive operation. The element designated to conduct the decisive operation can change during the course of the attack. The commander must consider an assault, breach, and support force if the commander expects to conduct a breach operation during the attack.

RESERVE

3-149. The commander uses the reserve to exploit success, defeat enemy counterattacks, or restore momentum to a stalled attack. Once committed, the reserve's actions normally become or reinforce the CAB's decisive operation. The commander makes every effort to reconstitute another reserve from platoons made available by the revised situation. Often a commander's most difficult and important decision concerns the time, place, and circumstances for committing the reserve. The reserve is not a committed force; it is not used as a follow-and-support force or a follow-and-assume force.

3-150. In the attack, the combat power allocated to the reserve depends primarily on the level of uncertainty about the enemy, especially the strength of any expected enemy counterattacks. The commander only needs to resource a small reserve to respond to unanticipated enemy reactions when detailed information about the enemy exists. When the situation is relatively clear and enemy capabilities are limited, the reserve may consist of a small fraction of the force. When the situation is vague, the reserve may initially contain the majority of the commander's combat power.

FORCE-ORIENTED ATTACK AGAINST A STATIONARY FORCE

3-151. The CAB may attack a stationary enemy force as part of a counterattack, a spoiling attack, or an initial attack against an enemy defense. The CAB may also attack a stationary force as part of a BCT MTC or exploitation. The focus of planning at the battalion level is to develop a fully synchronized plan that masses all available combat power against enemy vulnerabilities.

SCHEME OF MANEUVER

3-152. The CAB directs its main effort against an objective, ideally an enemy weakness, which will cause the collapse of the enemy defense. The battalion seeks to attack the enemy's flanks, rear, or supporting formations. By doing so, the CAB retains the initiative and reduces its own vulnerabilities.

3-153. The commander seeks to identify a poorly defended avenue of approach, a small unit lacking mutual support within the enemy defense, or a weak flank that the CAB can exploit to gain a tactical advantage. When attacking a well-prepared enemy defense, the CAB commander usually tries to isolate and then destroy small vulnerable portions of the enemy defense in sequence. The commander and staff develop the plan using a reverse planning process from actions on the objective back to the LD or AA. They incorporate plans for exploiting success and opportunities that develop during execution. They emphasize synchronization of mounted and dismounted movement, maneuver, fires, and support throughout the attack. (See figure 3-11 on page 3-36.)

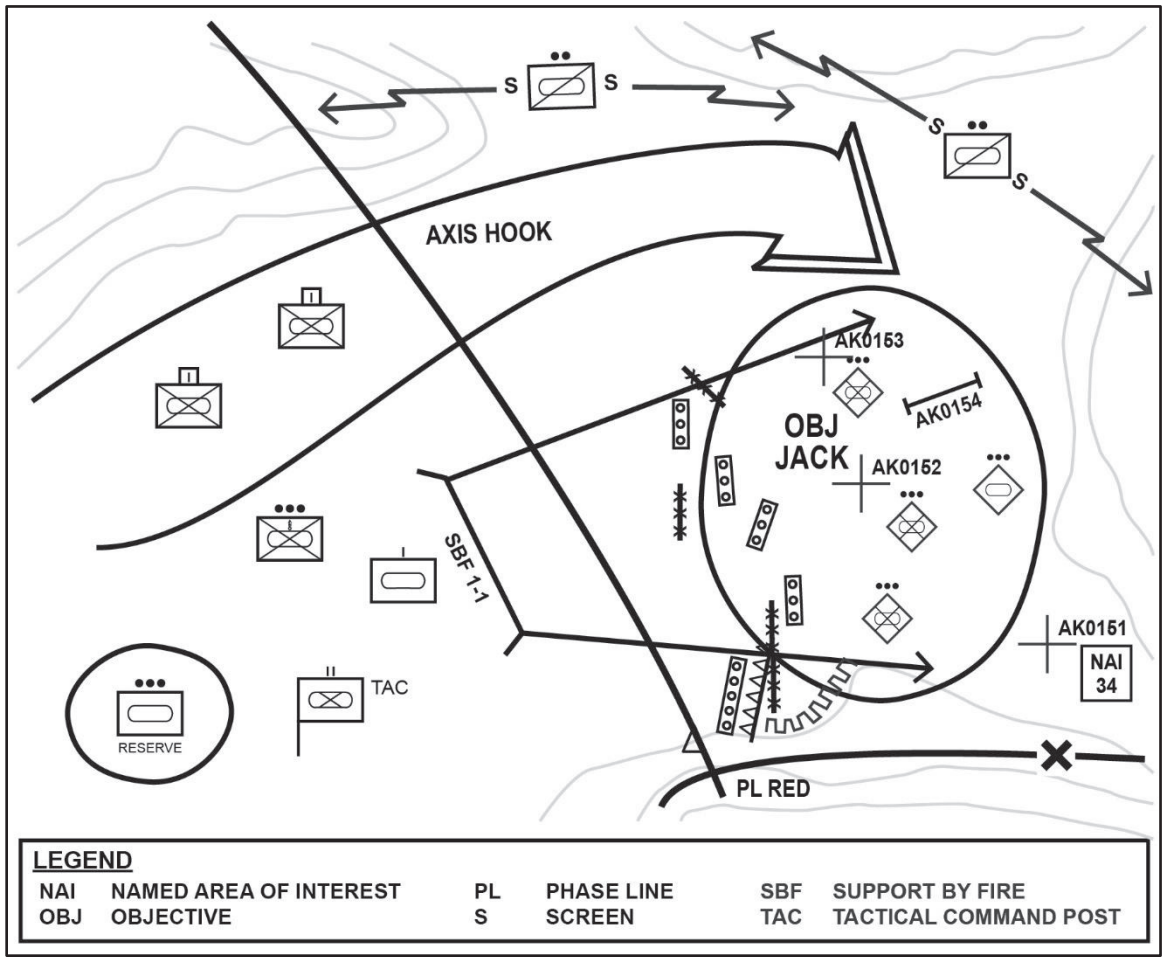


Figure 3-11. Combined arms battalion attack on a stationary enemy

3-154. The commander and staff must consider the enemy's strength and obstacles to determine when and where the CAB can conduct breaching operations. The size of the enemy force overwatching the obstacle drives the type of breach the CAB conducts and determines if the breach will be successful. The commander and staff consider the enemy's ability to mass combat power, reposition their forces, or commit their reserve. The battalion then develops a scheme of maneuver to mass sufficient combat power at an enemy weakness. The commander task-organizes forces within the battalion after choosing a scheme of maneuver. The task-organization allocates sufficient combat power to allow subordinate companies to accomplish their assigned purposes. Mounted forces are best suited to defeat enemy armored forces and provide mobile protected firepower in urban terrain. Engineers and specialized breaching or gap crossing capabilities are integrated into the task-organization. Dismounted Infantry forces are best suited for restricted terrain. The location selected for breaching and penetration depends largely on a weakness in the enemy's defense where its covering fires are limited.

Fires

3-155. The following are considerations for the fires plan:

- Position fires assets to support the reconnaissance effort.
- Use deception fires to deceive the enemy as to the location of the main effort.
- Plan suppressive and obscuration fires at the point of penetration.
- Plan suppressive and obscuration fires in support of breaching operations.
- Plan fires in support of the approach to the objective. These fires engage enemy security forces, destroy bypassed enemy forces, and screen friendly movement.
- Synchronize fires on the objective to achieve the effects of suppress, neutralize, or destroy on critical enemy forces that can most affect the battalion's closure on the objective.
- Plan fires beyond the objective to support an attack or defense.
- Use indirect fires and CAS to delay or neutralize repositioning enemy forces and reserves.
- Plan locations of critical friendly zones to protect critical elements and HVTs, such as support forces, breaching efforts, and artillery assets.

Engineer

3-156. Maintaining the mobility of the battalion in offensive operations is critical. The CAB must plan and allocate mobility and potentially countermobility resources to the security force, advance guard, and main body. The security force should have just enough mobility resources to cover its own movement and to complete the reconnaissance mission. The advance guard needs enough resources to conduct breaching or gap crossing, such as reducing lanes through obstacles for the main body to pass and may also be task-organized with countermobility capabilities to protect the CAB's flanks. If the obstacle is complex or covered by a proportionately larger force, the main body deploys additional reduction and security capacity. Engineer task-organization is based on supporting CAB breaching (or gap crossing) with sufficient engineer capabilities. Reduction capabilities should be attached to the CAB so they can transition to a breach in support of an attack, if needed. The CAB uses situational obstacles to exploit an enemy's vulnerability or specific COA and can use situational obstacles to help secure the battalion flanks. The following are considerations for the scheme of engineer operations:

- Designate the point of the breach (or gap crossing) location based on reconnaissance and obstacle information.
- Position engineer reconnaissance teams well forward.
- Ensure information on obstacles receives immediate battalion-wide dissemination, including supporting platforms and units.
- Ensure adequate mobility support is task-organized well forward during the approach to the objective to support breaching (or gap crossing) requirements for complex obstacles.
- Ensure redundant capabilities are available to support breaching (or gap crossing).
- Support assaulting forces with engineers to breach enemy protective obstacles.
- Ensure adequate guides, traffic control, and lane improvements, and explosive hazard reductions to support movement of follow-on forces and sustainment traffic.
- Use situational obstacles for flank security.

PREPARATION

3-157. The battalion uses available time prior to the attack to conduct extensive reconnaissance, precombat checks and inspections, and rehearsals while concealing attack preparations from the enemy. The commander and staff refine the plan based on continuously updated intelligence. They use digital tools to allow subordinate company teams maximum time to prepare. Subordinates conduct parallel planning and start their preparation for the attack immediately after the battalion issues a FRAGORD. As more intelligence becomes available, the commander revises orders and distributes them, giving subordinates more time to prepare. Regardless of the time available, the commander must conduct detailed planning and supervision of subordinate preparations.

Reconnaissance

3-158. Timely, accurate, relevant, and predictive intelligence is a prerequisite for a successful attack. Before mounting an attack, the commander needs to determine the enemy's strength and disposition. In an attack, the entire information collection, analysis, and dissemination process must rapidly respond to CCIR. The BCT provides most of the information available to the CAB commander and staff through radio updates and crosstalk, as well as digital updates based on the brigade's information collection plan and the BCT reconnaissance and security actions. The CAB commander must receive an accurate picture of the enemy's defense when deciding on a COA and act faster than the enemy can react. The BCT Cavalry squadron is the best source of information in this case and close coordination between the squadron, the BCT, and the CAB is critical to the CAB commander's decision-making. A deliberate reconnaissance handover between the CAB scout platoon and one of the Cavalry troops must be conducted to provide the CAB with effective observation of the objective prior to the attack (see chapter 7 for more on reconnaissance handover). In addition, the CAB commander may use elements of the sniper squad for surveillance and in order to provide real-time information of the objective or other AOIs.

3-159. When preparing for an attack, the commander and staff participate in development of the information collection plan. This is a well-resourced and coordinated reconnaissance effort that provides a detailed picture of the enemy situation prior to execution of the attack. This reconnaissance effort must include redundant information-gathering systems to ensure continuous flow of information to the CAB and to the BCT. The commander uses this intelligence to decide on a COA and make refinements to the plan. The information collection effort also provides the commander with continuous updates during the attack to allow adjustments of the execution of the operation based on the enemy's reactions.

Enemy's Current Array of Forces

3-160. The information available to the battalion comes from a continuous stream of reports and data that begins with information collection systems, such as UAS, BCT reconnaissance and security, snipers, and scout platoon that establish links to the battalion. The first priority is to confirm information available on the enemy's composition, disposition, capabilities, and most probable COA. The next priorities are the effects of weather and terrain and how the enemy is likely to fight. The S-2 tries to determine what the enemy will do and what information about the enemy's action the battalion needs to confirm.

3-161. The battalion information collection effort focuses on identifying indicators required for confirming the enemy's actual COA. Ideally, the commander does not make final decisions on how to execute the attack until the CAB can identify the current array of enemy forces. Key areas of information that friendly units should obtain about a defending enemy force include—

- Composition, disposition, and capabilities of forces along a flank or an area selected for penetration.
- Composition, disposition, and capabilities of security forces.
- Location, orientation, type, depth, and composition of obstacles.
- Locations of secure bypasses around obstacles.
- Composition, disposition, and capabilities of defending formations within the main battle area (MBA).
- Composition, disposition, capabilities, and location of reserves.
- Location of routes the enemy may use to counterattack or reinforce their defense.

3-162. Reconnaissance capabilities observe the enemy defense from advantageous OPs to locate gaps, identify weapons systems and fighting positions, view rehearsals and positioning, and determine the enemy's security activities and times of decreased readiness. The S-2 must discern any enemy deception efforts, such as phony obstacles, dummy emplacements, and deception positions, designed to confuse an attacker.

Enemy Engagement Area

3-163. The battalion commander, supported by the S-2, tries to define the parameters of the enemy EAs. This includes locations where the enemy can mass fires, maximize weapons ranges, integrate direct fires with obstacles, and provide mutual support between positions. This analysis requires effective terrain analysis,

confirmed locations of enemy weapons systems (by system type), and a good understanding of the enemy's tactics. Reconnaissance forces report locations, orientation, and composition of defending weapons systems and obstacles. The analysis of the enemy's direct and indirect fire and obstacle plan helps the commander to determine when the battalion must deploy, how to use indirect fires, how to avoid maneuvering inside the enemy's EA, and how feasible the enemy concept of operations is. The CAB commander can use long-range indirect fires to limit the enemy's ability to develop their EAs.

Enemy Vulnerabilities

3-164. The information collection effort also seeks to identify enemy vulnerabilities, which can include the following:

- Gaps in the enemy's defense.
- Exposed or weak flanks.
- Enemy units that lack mutual support.
- Unobserved or weakly defended avenues of approach to the enemy's flank or rear.
- Covered and concealed routes that allow the battalion to close on the enemy.
- Obstacles not covered by direct and/or indirect fires.
- Weak obstacles or fortifications in an enemy defense, especially along a flank.

Support on the Approach to the Objective

3-165. A rapid, secure advance to the enemy's main defense depends on information collection success in locating enemy security forces and obstacles. Reconnaissance initially focuses on the enemy's security forces forward of the main defense to locate positions and obstacles along the CAB's planned routes of advance. Reconnaissance also locates gaps and the routes that allow them to infiltrate into the enemy's main defensive area or rear area. Reconnaissance efforts continue by locating enemy forces that could reposition and affect the battalion's approach to the enemy's main defense. Successful attacks usually have reconnaissance forces placing indirect fires on targets to the enemy's rear that isolate the enemy's frontline forces and prevent them from being reinforced.

EXECUTION

3-166. The commander positions information collection capabilities to maintain observation of enemy reactions to the CAB's maneuver on the objective. Reconnaissance focuses on areas the enemy likely will use to reposition forces, commit reserves, and counterattack. As the engagement on the objective develops, reconnaissance elements report enemy reactions, repositioning, and battle damage assessment (BDA). Reconnaissance elements target and engage enemy repositioning forces, reserves, counterattacking forces, and other HPTs with indirect fires. Early identification of enemy reactions is essential for the battalion to maintain momentum and initiative during the attack.

Approach to the Objective

3-167. During the approach, the CAB must be ready to—

- Bypass, breach, or cross obstacles.
- React to all eight forms of contact.
- Transition to different formations based on the terrain and enemy situation.
- Employ forces to screen flanks that could become exposed or threatened during the approach.
- Avoid terrain features that are likely enemy artillery reference points, NAIs for CBRN strikes, or locations for situational obstacles.
- Employ indirect fire support to establish conditions for assault forces.
- Destroy or force the withdrawal of opposing enemy security forces.
- Minimize the effects of enemy deception.

3-168. When the situation permits, a defending enemy generally establishes a security and disruption area around forces to provide early warning of an attack, deny friendly reconnaissance, and disrupt the friendly

force's attack. The strength of the enemy's security area depends on the time available, forces available, and their doctrine or pattern of operations. The CAB must counter the effects of enemy security forces to ensure an unimpeded and concealed approach. Before the attack, reconnaissance forces seek to locate enemy security forces. Once located, the commander has the following options available:

- Destroy them immediately with indirect fires and CAS (preferred option).
- Destroy them with indirect fires and CAS during the approach to the objective.
- Conduct limited objective attacks prior to execution of the main attack.
- Employ a strong advance guard to destroy or force the withdrawal of enemy security forces during the approach to the objective.

3-169. The CAB must maintain a steady, controlled movement. Speed and dispersion, facilitated by close coordination and communication, are the norm with massing of weapons' effects to destroy the enemy's defense. If the formation is too slow or becomes too concentrated, it is vulnerable to massed enemy fires.

Actions on the Objective

3-170. The CAB commander maneuvers combat forces and employs fires, situational obstacles, and smoke to create favorable conditions for decisive maneuver against the enemy. The commander commits maneuver forces and fires to isolate, then rupture, a small vulnerable portion of the enemy's defense to gain a flank or create a penetration. The CAB achieves final destruction of the enemy force through the attack of assaulting forces.

Fires

3-171. The battalion employs fires to weaken the enemy's position and set the conditions for success prior to closure within direct-fire range of the enemy. Initially, fires focus on the destruction of key enemy forces that can most affect the concept of operations. For example, during an attack to penetrate an enemy defense, the initial focus of fires is to destroy the enemy positions at the selected point of penetration. Fires can also—

- Destroy enemy security forces.
- Weaken or neutralize enemy reserves.
- Emplace artillery-delivered obstacles to block enemy reserve routes to the objective.
- Deceive the enemy as to the battalion's actual intentions.
- Obscure friendly movements and deployment.
- Isolate the objective and suppress enemy positions.
- Use counterbattery fires to neutralize the enemy's indirect fires.

3-172. The coordination between fires and maneuver is critical. As maneuver forces approach the enemy defense, the commander shifts fires and smoke to suppress and obscure the enemy. Proper timing and adjustment of fires enable the maneuver force to securely close on the enemy's positions. The commander must monitor the success of fires to determine when adequate conditions exist for commitment of the force. Reconnaissance elements provide BDA to the commander to assist in making this decision. The commander may need to adjust the speed of the CAB's approach to the objective based on reports from the scout platoon.

Fix

3-173. The CAB can fix the bulk of the enemy forces into given positions or pursue a COA that limits the options available to the enemy. In limiting the options available to the enemy, the objective is to reduce the uncertainty during the battle. The primary goal is to isolate the unit targeted for destruction by preventing the enemy from laterally repositioning or reinforcing it.

3-174. Usually, a company team within the CAB fixes the enemy force by attacking an objective that isolates a portion of the enemy's defense. In open terrain, the most common task for the shaping force is to fix the enemy with direct and indirect fire. In more complex terrain, the supporting force may need to seize terrain or destroy key enemy forces in limited objective attacks. The use of fires and CAS is vital when attacking enemy forces and reserves in-depth because fires and CAS prevent the enemy's commitment against the battalion.

3-175. Before commitment of friendly forces against the enemy, forces remain dispersed and outside the enemy's direct fire engagement line, and avoid exposing themselves to enemy observation. Forces not yet committed use this time to conduct final preparations and make adjustments to their plans. A key action during this time is the update of intelligence on enemy locations and conditions. The S-2 should have an updated intelligence summary available just prior to the battalion crossing the LD. The commander uses assault positions, phase lines, and other graphic control measures to control the positioning of the forces not yet committed. Commanders throughout the battalion continuously assess the situation. Subordinate commanders provide recommendations and anticipate decisions by the CAB commander based on tactical information received. The commander commits subordinate forces when the desired levels of suppression, destruction, and obscuration are achieved. Timely reporting, crosstalk, accurate assessments, and sharing of information by subordinate commanders are paramount.

Maneuver

3-176. The attacker must be agile enough to concentrate forces and mass combat power by decisive maneuver before the enemy can reorient their defense. Usually, the destruction of a defending enemy force dictates an assault of the objective. The shaping force shifts direct and indirect fires, and repositions as required to support the maneuver of assaulting forces. As the assaulting force commits, the battalion commander and staff ensure that current information is available about—

- Locations and types of enemy contact on the objective.
- Locations of friendly reconnaissance forces.
- Locations of lanes and obstacles, including lane markings.
- Recognition signals and guides.
- Specific routes to use for the approach.
- Locations and orientations of fires from friendly forces.
- Additions or modifications of graphic control measures.

3-177. The previously dispersed assaulting force quickly assembles into combat formations and rapidly maneuvers to destroy the enemy forces and clear assigned objectives. The assaulting force moves along covered and concealed routes to an exposed enemy flank, created penetration, or other position of advantage. Smoke helps to conceal the movement of assaulting forces. The assault includes destruction of defending forces and clearance of trenches and fortifications and can involve a combination of mounted and dismounted movement. The CAB commander's main focus is maintaining momentum and security of the assaulting force. The information collection effort continues to report enemy repositioning, BDA, and enemy counteractions to the assault. The battalion limits enemy repositioning and massing against assaulting forces through intense supporting fires and CAS, a rapid assault, and employment of smoke.

FORCE-ORIENTED ATTACK AGAINST A MOVING ENEMY FORCE

3-178. The CAB is likely to attack a moving enemy force, especially during a counterattack, spoiling attack, or exploitation or because of an MTC. In a force-oriented attack against a moving enemy force, the CAB normally organizes in the same manner as an MTC. The following paragraphs detail key planning considerations.

WHERE TO FIGHT THE ENEMY

3-179. The decision on where to fight the enemy requires that the commander have a thorough understanding of the friendly and enemy situations. The commander bases the decision on a clear understanding of the effects of the terrain, the enemy situation, and the expected enemy COA.

3-180. The commander and staff select the most advantageous location to fight the engagement and then determine other possible locations where the engagement may occur based on a slower- or faster-than expected enemy advance or the enemy's use of an unlikely avenue of approach. They identify these areas as objectives or AO. The commander and staff must develop control measures to help coordinate actions throughout the battalion AO. The commander, assisted primarily by the S-3 and S-2, develops DPs for the commitment of the battalion to each location based on relative locations and rates of movement of the

battalion and the enemy. The S-2 carefully selects NAIs to identify the enemy's rate and direction of movement to support the commander's decision of where to fight the engagement. Figure 3-12 depicts an attack on a moving enemy.

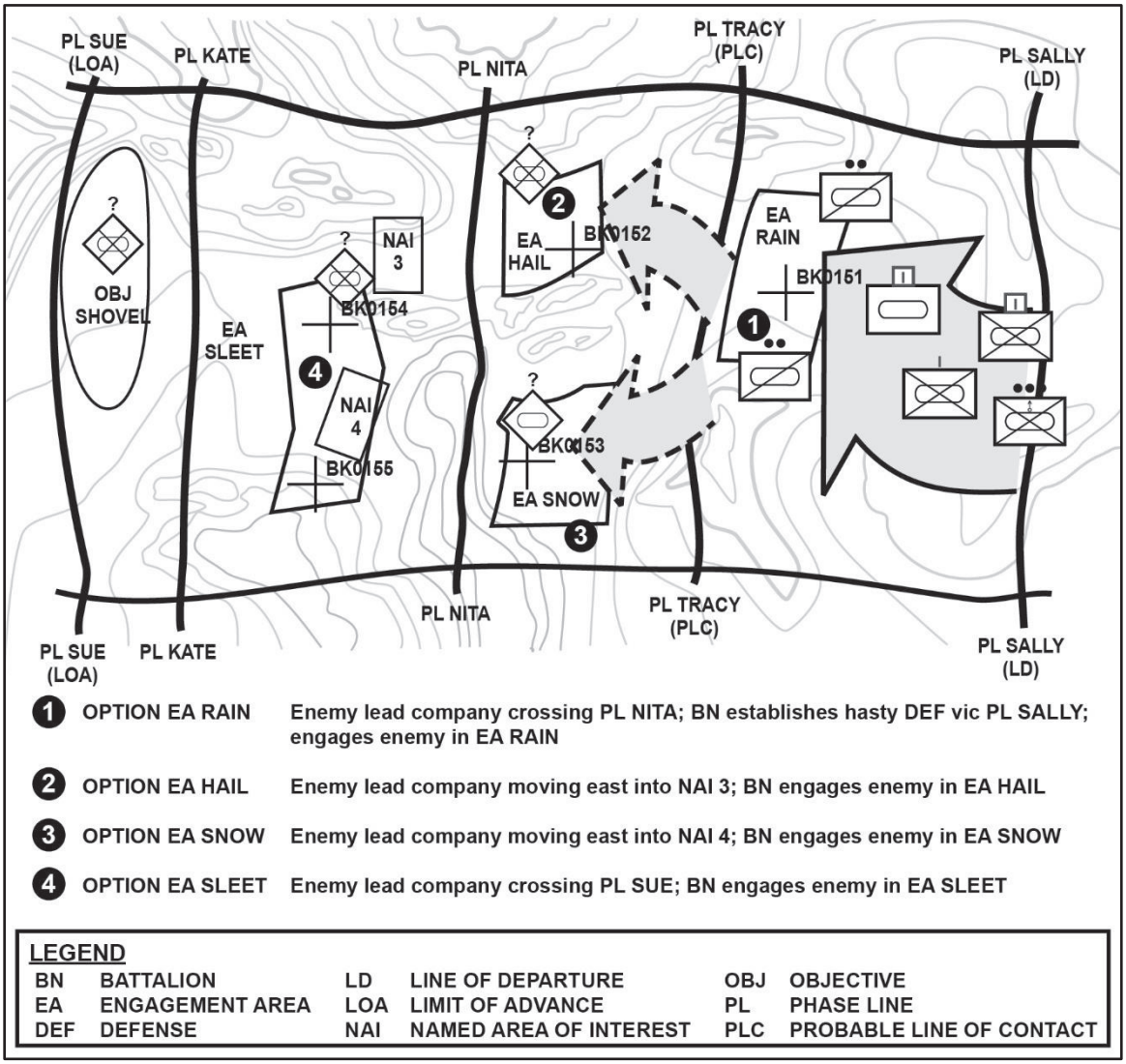


Figure 3-12. Combined arms battalion attack on a moving enemy

MAXIMIZING THE ADVANTAGES OF THE TERRAIN

3-181. The battalion commander uses the terrain to maximize the CAB's freedom of maneuver and lethality while limiting the enemy's freedom of maneuver. The commander looks for avenues of approach that allow the CAB to strike the enemy from a flank or the rear. One or two company teams block the enemy's advance while the other company teams attack into the enemy's flank. The terrain prevents the enemy from moving away from the main attack while also protecting the CAB's flank from an enemy attack.

3-182. Although the commander develops plans to fight the enemy at the most advantageous location for the CAB, the commander retains enough flexibility to attack the enemy effectively regardless of where the engagement develops. The COP provides subordinate commanders the same picture available to the CAB commander and enables them to anticipate changes to the base plan. The scheme of maneuver includes provisions to fight the enemy in other AO or objectives. For simplicity, the commander seeks to keep the scheme of maneuver in each AO or objective as similar as possible.

3-183. In some situations, such as an MTC, the CAB may have constraints in the time or ability to select when and where to fight a moving enemy force. If so, the commander orders the CAB into the attack through the use of a FRAGORD based on personal assessment and physical view of the battlefield. The commander quickly deploys and maneuvers the CAB to develop the situation and meet the objectives provided by higher command.

FIRES

3-184. Key considerations for the fire support plan include—

- Use fires to affect the enemy's maneuver well forward of the CAB, disrupting the enemy's formations and timetable.
- Destroy HPTs and security forces.
- Carefully plan triggers, observer locations, and targets to maintain flexibility and ensure achievement of required effects prior to contact with the enemy.
- Coordinate and synchronize the movement and positioning of artillery (coordinate terrain requirements) to support essential tasks for fire support within each objective or AO, and to engage HPTs before the enemy enters the selected objective or AO.
- Retain flexibility to mass fires at the decisive point where the battle is most likely to occur.
- Plan triggers to put targets into effect and cancel them based on the battalion's movement and the commander's decision of where to fight the enemy.
- Synchronize the movement and positioning of mortars with the scheme of maneuver.

ENGINEER SUPPORT

3-185. Key considerations for the scheme of engineer operations include—

- Task-organize engineer forces well forward to support reconnaissance, breaching, gap crossing, and countermobility (including fires and aerial delivery FASACM).
- Normal priority of support is to the lead company team.
- Be prepared to bypass, breach, or cross enemy obstacles.
- Integrate obstacles (situational, reserved, and directed) with fires to disrupt the movement of enemy forces.
- Plan obstacle control measures and situational obstacles to support flank security.
- Develop and adjust obstacles and triggers for execution based on the battalion's movement and the enemy situation.

SUSTAINMENT

3-186. Key considerations for the sustainment plan include—

- Continuously update the sustainment plan; ensure the plan is responsive and flexible enough to support all maneuver options; and plan support from initiation of the operation to the final objective or LOA.
- Integrate refueling and resupply operations with the scheme of maneuver.
- Based on the potential for undetected or bypassed enemy forces, weigh the risks that extended distances create for security of MSRs and sustainment assets.
- Develop and maintain an accurate enemy picture behind the lead maneuver elements.
- Plan and rehearse for enemy contact.
- Plan and coordinate the locations, displacements, and routes of sustainment assets to maintain responsive support.
- Plan and develop triggers for activating and deactivating collection points and LRPs based on the battalion's scheme of maneuver.
- Plan MEDEVAC, resupply, and equipment recovery to support anticipated engagements within each AO or objective.

- Plan immediate support and resupply to high-risk operations such as breaching, gap crossing, countermobility, or assaults; through the forward positioning of support assets.

PREPARATION

3-187. Preparation for an attack against a moving enemy force may be limited because the opportunity to attack the enemy at the appropriate time and place depends on the enemy's movement. This forces the CAB to focus the preparation on executing fires and maneuver actions within each AO or objective. The CAB commander prioritizes each AO or objective area to ensure the CAB prepares for the most likely engagements first. The commander must ensure all subordinate companies and supporting forces understand their roles in each AO or objective area and the DP for execution of each. The leaders of the battalion rehearse actions for each COA against various enemy conditions to promote flexibility and initiative consistent with the commander's intent. Repetitive rehearsals against likely enemy actions are essential for success at all levels.

Reconnaissance

3-188. The CAB information collection effort focuses on answering the CCIR to support the commander's decisions on: when and where to initiate fires; where to fight the enemy; and how to maneuver the battalion against the enemy best. The S-2 develops NAIs to identify enemy actions and decisions that indicate the enemy's selected COA. Key intelligence considerations are discussed in the following paragraphs.

Understand the Effects of the Terrain

3-189. The commander must understand the effects of terrain on the CAB and the enemy. This has the greatest impact on deciding where to fight the enemy. The S-2 conducts a detailed terrain analysis and specifically identifies:

- Locations and tactical advantages of key terrain.
- Avenues of approach and mobility corridors for enemy and friendly forces.
- Advantageous locations for the battalion to fight the engagement.
- Danger areas where friendly or enemy forces could become vulnerable. (Examples include, restricted terrain, choke points, obstacles, terrain that naturally exposes a flank, and areas dominated by key terrain.)
- Likely rates of movement for both forces.

Anticipate the Enemy's Selected Course of Action

3-190. The IPB details how the enemy is likely to move and fight. It emphasizes the enemy's likely formations and routes, and how the enemy will attempt to fight the ensuing engagement.

3-191. The analysis illustrates the enemy's expected rate of movement and how the enemy force is likely to array based on a detailed terrain and time-distance analysis. The enemy usually has three general COAs:

- Assume a hasty defense either before or after initial contact to retain control of defensible terrain or limit the advantages the battalion may have.
- Attack to defeat or penetrate the battalion.
- Attempt to delay or bypass.

3-192. The S-2 develops enemy COAs based on the enemy's likely objective, capabilities, strength, and known tactics. The S-2 determines those enemy actions that may indicate the enemy's selection of a COA and ensures observers are positioned to detect and report these indicators. The S-2 must always portray the enemy's flexibility, likely actions, and available maneuver options. The goal is to identify the enemy's most likely COA and have the battalion anticipate and prepare for it.

Gain and Maintain Contact

3-193. Preferably, the CAB establishes contact with the enemy using unmanned sensor platforms well before it makes physical contact. The CAB, with support from the BCT, receives information from surveillance assets such as UAS, to track the moving enemy force. Information gathered by these sensors

helps the battalion direct ground reconnaissance capabilities to advantageous positions to observe and report information on the enemy. Once the CAB establishes contact with the enemy, the battalion maintains it until the destruction of enemy forces.

3-194. The CAB must share information gained from sensors and ground reconnaissance elements with all elements of the battalion as quickly as possible. IR usually include—

- The enemy's rate and direction of movement.
- The enemy's formation, strength, and composition, which includes locations of security forces, main body, reserves, and artillery formations.
- Enemy actions and decisions that indicate a future enemy action or intention.
- Location of enemy HPTs.
- Location, type, and activity of enemy key combat multipliers the CAB commander intends to attack, such as artillery, engineers, air defense, and logistics.
- Enemy vulnerabilities such as exposed flanks or force concentrations at obstacles.

Support the Battalion's Movement

3-195. Reconnaissance forces move well forward of the CAB. They reconnoiter obstacles and areas that may slow the CAB's movement and disrupt the timing and planned location of the attack. They seek to detect obstacles, contaminated areas, enemy security forces, and suitable routes for the battalion's use.

Report Enemy Actions on Contact

3-196. As the engagement develops, reconnaissance capabilities continue to report enemy actions, BDA, and locations. Reconnaissance capabilities must occupy positions that provide good observation of the engagement and are survivable throughout the course of the engagement.

EXECUTION

3-197. Considerations that apply to executing the attack pertain to maximizing the approach to the objective, actions on the objective, disrupting and weakening the enemy's formation, defeating the enemy's security force, fixing the enemy, and maneuvering the main body.

Maximize the Approach to the Objective

3-198. The CAB moves with deliberate speed. By gaining contact with the enemy force quickly through the reconnaissance and surveillance force, the BCT can use long-range fires and CAS to destroy and disrupt the enemy throughout the formation.

3-199. The battalion deploys, masses effects, and destroys the remaining enemy before they can adequately react. The commander adjusts the speed of the CAB to ensure that fires have set appropriate conditions and that the battalion arrives at the designated EA at the proper time in relation to the enemy. Effective reporting and analysis of the enemy's rate and direction of movement by reconnaissance and surveillance elements are critical to the timing of the attack.

3-200. The commander seeks to conceal the movement of the CAB from the enemy to maintain surprise. The CAB, moving dispersed, masks its movement and maximizes its use of routes that provide cover and concealment. The use of all current information available to enhance positive control of movement formations by all subordinate units is essential to the CAB's ability to mass against the enemy. The CAB employs a robust reconnaissance effort to detect and destroy enemy security forces that may warn the enemy force of friendly actions.

Take Action on the Objective

3-201. The CAB creates favorable conditions for decisive action by weakening and disrupting the enemy's formation, destroying their security forces, and fixing the enemy's main body. The CAB achieves final destruction of the enemy through its main body's attack.

Disrupt and Weaken the Enemy's Formation

3-202. The CAB employs direct and indirect fires reinforced with situational obstacles to set the conditions for EA fights disrupting and weakening the enemy before they get to the EA. Indirect fires should provide time for the CAB to deploy before contact. Scouts normally control these initial fires.

Defeat Enemy Security Forces

3-203. The enemy normally employs security forces to protect their main body. The enemy's ability to seize the initiative often rests on their security forces. The CAB must avoid, destroy, or fight through the enemy's security forces to gain contact with the main body of the enemy force. The commander employs fires in conjunction with the advance guard to defeat the enemy's security forces so the CAB's main body can decisively attack the main body of the enemy force. Ideally, the CAB's advance guard attacks the enemy's forward or flank security forces to develop the situation. The commander weights the advance guard with maneuver forces and indirect fires in order to destroy the enemy's security force rapidly and gain contact with the enemy's main body before the enemy can effectively react.

Fix the Enemy

3-204. The CAB normally fixes the enemy main body to create the conditions for the main body's attack. Normally, the CAB's advance guard executes this task once it destroys the opposing enemy security force. Indirect fires against the lead enemy forces allow the advance guard to deploy and gain contact with the enemy main body. The advance guard commander keeps the CAB commander informed of the enemy's strength and actions. It is paramount that the CAB commander receives accurate, timely reports and analysis of the enemy situation. Reconnaissance elements assist the advance guard commander in providing accurate information to the CAB commander. The CAB commanders must know the enemy main body's strength, disposition, and reactions. They use this information to make final adjustments to the main body's attack.

Maneuver the Main Body

3-205. As the advance guard develops the situation, the commander begins to maneuver the main body to a favorable position for commitment. The commander positions the CAB to attack the enemy formation from an assailable flank where its total combat power can be massed against an enemy weakness to reach a quick decision. Rapid movement and massed fires characterize this attack.

3-206. Indirect fires shift to suppress the enemy force that directly opposes the main body's attack. The main body strikes the enemy force with overwhelming strength and speed. As the main body maneuvers against the enemy, the FSO adjusts FSCMs to provide continuous support and ensure force protection.

3-207. If the commander determines the enemy force is attempting to bypass or avoid contact, the commander immediately directs indirect fires to delay and disrupt the enemy's movement away from the CAB. The commander maneuvers forces to quickly destroy or penetrate any enemy forces attempting to fix or delay the CAB and strikes the bulk of the evading enemy force from the flank or rear.

3-208. Current tactical information is paramount for the rapid commitment of fires and maneuver forces during these decisive maneuvers. All commanders involved must know the location of enemy and friendly forces. Subordinate commanders must anticipate the CAB commander's decisions and have their subordinates ready to execute. They must also anticipate the shifting of indirect fires since the fire support elements can see and understand the battle as it takes place.

TERRAIN-ORIENTED ATTACKS

3-209. Terrain-oriented attacks require the CAB to seize or secure a designated area to support future operations. The CAB attacks to seize terrain-oriented objectives for many reasons, for example—

- To seize key terrain or structures such as bridges, airfields, or public services to support follow-on operations.
- To seize terrain such as choke points or routes to block enemy withdrawals, reinforcements, or movements against the brigade's main effort.

- To secure an area to allow future operations such as a lodgment area.

3-210. The CAB plans and executes terrain-oriented attacks (see figure 3-13) in the same manner as attacks against enemy forces. The major distinction in a terrain-oriented attack is that the CAB focuses its efforts on the seizure and holding of terrain instead of the total destruction of the enemy. The commander plans and controls the attack to gain control of the terrain as quickly as possible and conducts only necessary actions against the enemy. Success of the mission does not normally entail decisive action against all enemy forces within the AO.

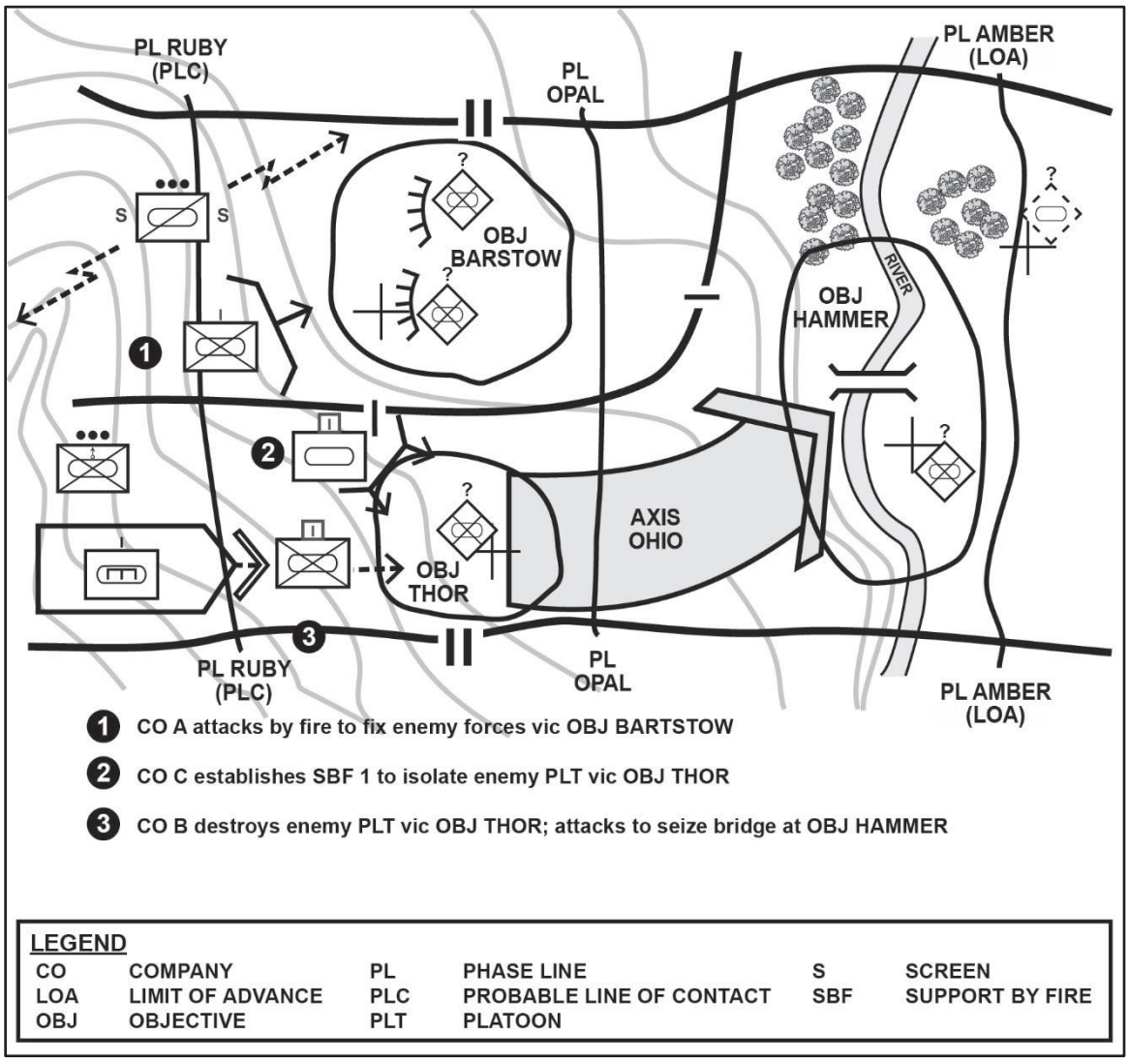


Figure 3-13. Terrain-oriented attack

3-211. The CAB attacks only those enemy forces that directly affect the seizure of the objective or that may impact on the future operation. Other key planning considerations that differ from force-oriented attacks include the following:

RECONNAISSANCE

3-212. The information collection effort, as in other attacks, capitalizes on all the battlefield surveillance capabilities available to the brigade as well as those that belong to the CAB to identify the enemy situation on the objective and any sizable enemy forces within the CAB's AO. CAB ground reconnaissance elements occupy advantageous positions to gain observation and report information on the enemy.

3-213. The commander must consider enemy forces within the battalions AO, as well as, areas outside the AO but inside the battalions AOI, that may react to the CAB's seizure of the objective. Once the CAB locates enemy forces, reconnaissance forces seek to determine the full extent of the enemy's strength and disposition as well as possible bypasses the CAB may exploit.

3-214. The commander, assisted by the S-2, seeks to identify the possible reactions of enemy forces within the AO of the CAB's attack. The plan should retain the necessary flexibility to succeed against all likely enemy reactions. As the S-2 develops enemy COAs, it must identify those indicators that reveal the enemy's commitment to a future action. The commander normally considers enemy actions to defend in place, reinforce threatened enemy units, counterattack, delay, or possibly withdraw.

Degree of Risk

3-215. CAB commanders must determine the degree of tactical risk they are willing to accept by leaving or bypassing enemy forces in the CAB's AO. The commander bases this decision on the higher commander's intent and established bypass criteria, the enemy's capabilities, and the commander's assessment of the situation. The commander must recognize the potential effects that bypassed enemy forces may have on the CAB's sustainment assets and future operations.

3-216. The commander normally employs economy of force missions to contain, guard, or fix bypassed enemy forces. The tactical risk imposed by these bypassed forces is reduced by accurate and timely reporting of their locations and status by way of situation reports and digital C2 systems throughout the CAB, especially to the elements moving behind the maneuver forces in the CAB's AO. Once the battalion secures the objective, other forces or fires can destroy bypassed enemy forces or force their surrender.

Seizure of the Objective

3-217. Once it seizes the objective, the CAB conducts a hasty defense of the area to prevent the enemy from recapturing it. The commander seeks to position forces in a manner that best defends the objective while allowing a rapid transition to follow-on operations. Reconnaissance and security forces push forward of the objective to identify any enemy forces approaching the secured objective. Engineers provide countermobility and survivability support as required. Mortars may displace forward at this time to provide extended coverage beyond the objective to defeat potential enemy reserve or counterattack forces.

VARIATIONS OF ATTACKS

3-218. The CAB may also be tasked to conduct variations of attacks such as an ambush, counterattack, demonstration, feint, raid, or spoiling attack. The commander's intent and mission variables of METT-TC will determine the specific attack form. Variations of attacks share many of the planning, preparation, and execution considerations of the attack.

Ambush

3-219. The *ambush* is an attack by fire or other destructive means from concealed positions on a moving or temporarily halted enemy (FM 3-90-1). An ambush capitalizes on the element of surprise. Ambushes are categorized as near, or far ambushes, based on the proximity of the friendly force to the enemy and hasty or deliberate. A hasty ambush is an immediate reaction to an unexpected opportunity conducted using SOPs and battle drill. A deliberate ambush is planned as a specific action against a specific target.

3-220. The CAB will most likely execute company level and below ambushes as offensive operations to a larger operation. Because the ambush relies on the element of surprise, conducting a deliberate ambush in a populated urban area with multiple actors is a challenge for large armored vehicle formations. However, tank and IFV units well trained in battle drills can achieve the element of surprise through the application of audacity, concentration, and tempo to conduct hasty ambushes at opportunistic times. The precision, lethality, and range of tanks and IFVs are well suited for far ambushes in open terrain that afford some means of concealment.

3-221. The three types of ambush are point, area, and antiarmor. In a point ambush, a unit deploys to attack a single kill zone (see FM 3-90-1 for more information). In an area ambush, a unit deploys into two or more

related point ambushes. A unit smaller than a platoon does not normally conduct an area ambush. Antiarmor ambushes focus on moving or temporarily halted enemy armored vehicles. The ambush, by its very nature, is a violent and decisive action and requires Soldiers to harness the aggression that comes with its execution in a professional manner according to the laws of war and ROE.

Organization of Ambush Forces

3-222. A typical ambush is organized into three elements: assault, support, and security. The assault element fires into the kill zone to destroy the enemy force. The assault force, normally IFVs and Infantry dismounts, attacks into and clears the kill zone and may be assigned additional tasks, to include searching for items of intelligence value, capturing prisoners, and completing the destruction of enemy equipment to preclude its immediate reuse. The support element consisting of IFVs and tanks supports the assault element by firing into and around the kill zone, and it provides the ambush's primary killing power. The security element isolates the kill zone by blocking enemy avenues of approach into the ambush site after the ambush has commenced. It provides early warning of the arrival of any enemy relief force and security for ambush elements.

Planning and Preparing an Ambush

3-223. A key to the planning and preparation of any ambush is site selection. The site should provide concealment and element locations, insertion and exit routes for assault forces, and natural, man-made, or military obstacles to integrate with direct and indirect fires to trap enemy elements in the kill zone. (See FM 3-90-1 for more information on ambush planning, preparation considerations, and the types of formations and their use in point and area ambushes.)

Executing an Ambush

3-224. Initiating the ambush when the bulk of the enemy is in the kill zone or to neutralize specific enemy assets or personnel, coupled with precise and discipline fires, are key elements to a successful ambush. After the conduct of an ambush, the ambush commander or representative debriefs the force on enemy tactics, procedures, and patterns utilized against the ambush, in order for future units to account for these when planning for ambush operations.

COUNTERATTACKS

3-225. A *counterattack* is an attack by part or all of a defending force against an enemy attacking force, for such specific purposes as regaining ground lost, or cutting off or destroying enemy advance units, and with the general objective of denying to the enemy the attainment of the enemy's purpose in attacking. In sustained defensive operations, it is undertaken to restore the battle position and is directed at limited objectives (FM 1-02.1). Counterattacks are conducted to regain key terrain and ultimately regain the initiative.

3-226. A counterattacking force maneuvers to isolate and destroy a designated enemy force. It can attack by fire into an EA to defeat or destroy an enemy force, restore the original position, or block an enemy penetration. Once launched, the counterattack usually becomes a decisive operation for the commander conducting the counterattack. The integration of reconnaissance forces, indirect fires, and other enablers is critical for the success of a counterattack. The CAB, with its communications systems, responsiveness, firepower, maneuverability, and protection, makes it a very powerful counterattack force. The CAB can be used as a subordinate element within a larger counterattack force, as the counterattack force, or use one or more of its subordinate elements as a counterattack force within the CAB's AO.

3-227. The commander plans and conducts a counterattack to attack the enemy when and where they are most vulnerable. Usually, the commander attempts to retain a striking force to conduct a decisive counterattack once the enemy commits the main force to the attack. The commander assigns objectives to counterattacking forces when the commander intends for them to assault the enemy. The commander usually assigns attack-by-fire positions when the intent is to counterattack using primarily direct and indirect fires. Assuring the mobility of the CAB counterattack elements is critical to the success of the defense. Engineer capabilities generally are task-organized to support the striking force or the reserve.

3-228. The two levels of counterattacks are major and local counterattacks. In both cases, waiting for the enemy to act first may reveal the enemy's main effort and create an assailable flank to exploit. A defending unit conducts a major counterattack to seize the initiative from the enemy and defeat the enemy through offensive action after an enemy launches the attack. A commander also conducts major counterattacks to defeat or block an enemy penetration that endangers the integrity of the entire defense, or to attrite the enemy by the defeat or destruction of an isolated portion of the attacking enemy. Local counterattacks are designed to restore the defense by immediately committing all available resources to prevent the enemy from consolidating gains. A commander, however, has to balance the advantages of a quickly developed local counterattack with the danger of piecemeal commitment of forces.

Organization of Counterattack Forces

3-229. The CAB commander of a major counterattack force typically organizes units into security, main body, and reserve forces. The commander uses those defending forces already in contact with the enemy to fix or contain those same enemy forces. The commander may use a force committed to the counterattack, such as the striking force in a mobile defense, the reserve, another echelon's reserve, or designate any other force deemed appropriate to be the counterattack force. Any changes in task-organization should be completed in time to allow units to conduct rehearsals with their attached or supported unit.

3-230. A commander conducts a local counterattack with whatever forces are immediately available to retake positions that have been lost to enemy action or to exploit a target of opportunity. The forces often consist of the reserves of subordinates and defending forces that survive after completing their withdrawal from lost positions. Engineers are task organized to support mobility. While it is unlikely that the commander changes the task-organization of the forces conducting a local counterattack, the commander organizes the force into a security force and a main body. The commander may be able to designate an element to conduct reconnaissance.

3-231. If the CAB's defensive scheme depends on a counterattack as the defeat mechanism, the counterattack force is considered to be committed from the beginning of the defensive operation. In this case, the commander should designate another force as the reserve.

Planning a Counterattack

3-232. The commander plans the counterattack to strike the enemy when the enemy force is vulnerable. As the enemy force advances, the defense may create gaps between enemy units, exposing the flanks and rear of elements of the attacking force. Immediately after an enemy force occupies a defended position, it is often disorganized and ill-prepared to meet a sudden local counterattack. Because the opportunities for effective counterattacks are usually brief, the commander must assess the situation rapidly, and the force must execute the counterattack swiftly. The commander assigns objectives or attack-by-fire positions to counterattacking forces, depending on whether or not the intent is for the counterattacking force to close with and assault the enemy.

3-233. Major counterattack plans usually are developed as a branch or sequel to the main defensive plan. A major counterattack may achieve surprise when it strikes the enemy from an unanticipated direction. For that reason, the force directed to conduct a major counterattack, such as the striking force in a mobile defense, should be involved in developing those plans as well as any plans to exploit potential success. Local counterattacks may or may not be the result of previous deliberate planning.

Preparing a Counterattack

3-234. Surprise, mobility, coordinated fires, and control are the keys to a successful counterattack. Surprise enables the counterattacking force to seize control of the situation. If total surprise is not possible, it must be as close to total as possible so that the targeted enemy force does not expect the attack until it is too late to react effectively. Thorough planning and preparation help achieve surprise. The commander adjusts the positioning and tasks of information collection capabilities in order to determine the location and targets for the counterattack.

3-235. The commander conducts a leader's reconnaissance with key personnel to confirm or modify the counterattack plan. If necessary, the commander modifies the plan and disseminates those changes to

subordinate leaders and other affected organizations. Each element of the counterattack force reconnoiters its planned axis of advance and routes it will take if possible. The commander maintains close control during movement to and occupation of hide positions and this reconnaissance process so the enemy does not detect the counterattack force prior to initiating the counterattack. Leaders enforce camouflage, noise, and light discipline.

3-236. The commander adjusts the planned positions of the weapons systems to obtain the maximum effectiveness against targets in the planned EA. The commander coordinates all fires, including those of supporting artillery and mortars, so that the fires isolate the targeted enemy force in the planned EA while preventing the target's escape or reinforcement. These fires must inflict maximum damage quickly before the enemy can respond to the counterattack.

Executing a Counterattack

3-237. Whenever possible, the commander retains the counterattack for the decisive operation, which is conducted after the enemy reveals their main effort by committing the majority of their combat power. If the commander orders the reserve to conduct a planned counterattack, the reserve becomes a committed force and the commander should take measures to designate or reconstitute a new reserve.

3-238. The commander conducts the counterattack in the same manner as any other attack. The commander shifts support and priorities of fire and designates targets to be engaged. The counterattack force performs the same actions as an attacking force.

3-239. Subordinate commanders initiate local counterattacks with the forces on hand when it fits within the higher commander's intent. A local counterattack should be swift and violent. It should exploit any disorganization on the part of the enemy, such as the confusion that temporarily exists in an attacking force after it seizes a defended position. A rapidly mounted local counterattack can yield better results than a more deliberate counterattack executed by a higher echelon. This is because of the speed at which the mounted local counterattack can be launched.

3-240. In the face of a strong enemy penetration, a commander can conduct local counterattacks to retain or seize positions on the shoulders of the enemy's penetration and potentially reinforce those positions with hasty obstacles. This prevents the enemy from widening the penetration while forces from other defending units engage the penetrating enemy forces. In addition, holding the shoulders can prevent the sacrifice of positional depth because the limited gap in the defensive position prevents an attacking enemy from fully exploiting their success.

DEMONSTRATION

3-241. A *demonstration* is, in military deception, a show of force similar to a feint without actual contact with the adversary, in an area where a decision is not sought that is made to deceive an adversary (JP 3-13.4). A demonstration can be achieved by repositioning or moving forces in order to get enemy forces to reorient their attention and weapon systems. (See FM 3-90-1 for more information.)

FEINT

3-242. A *feint* is, in military deception, is an offensive action involving contact with the adversary conducted for the purpose of deceiving the adversary as to the location and/or time of the actual main offensive action (JP 3-13.4). Feints must be of sufficient strength and composition to cause the desired enemy reaction. Feints must appear real; therefore, some contact with the enemy is necessary. The feint is most effective under the following conditions:

- When it reinforces the enemy's expectations.
- When it appears to be a definite threat to the enemy.
- When the enemy has a large reserve that it has consistently committed early.
- When there are several feasible COAs open to the attacker.

3-243. Planning for a feint mission follows the same sequence as any other attack. Special planning considerations include the following:

- Ensure the battalion resources the feint to make it appear as the main effort or as a significant threat to the enemy.
- Establish clear guidance regarding force preservation.
- Ensure adequate means of detecting the desired enemy reaction.
- Designate clear disengagement criteria for the feinting force.
- Assign attainable objectives.
- Issue clear follow-on missions to the feinting force.

RAID

3-244. A *raid* is an operation to temporarily seize an area to secure information, confuse an enemy, capture personnel or equipment, or to destroy a capability culminating with a planned withdrawal (JP 3-0). Raids are usually small-scale attacks requiring detailed intelligence, preparation, and planning. Typical raid missions accomplish the following:

- Capture prisoners, installations, or enemy materiel.
- Destroy enemy materiel or installations.
- Obtain specific information on an enemy unit such as its location, disposition, strength, or operating scheme.
- Deceive or harass enemy forces.
- Liberate captured friendly personnel.
- Site exploitation.

3-245. The raiding force may vary in size from an Infantry platoon to the entire CAB. It may operate within or outside the battalion's supporting range. The raiding force moves to its objective (either mounted or dismounted) for a quick, violent attack. Once it completes the raid mission, the raiding force quickly withdraws along a different route. The following are specific planning considerations for a raid mission:

- Conduct detailed reconnaissance and maintain constant surveillance of the raid objective to ensure the enemy situation remains unchanged and within the capability of the raiding force. The BCT must provide information collection support to the CAB in order to plan and conduct a raid successfully.
- Position fire support systems to provide immediate responsive fires during the approach, actions on the objective, and withdrawal. Interdiction fires, deception fires, counterstrikes, and situational obstacles reduce the enemy's ability to react to the raid.
- Ensure proper security because the raiding force is vulnerable to attack from all directions.
- Establish clear abort criteria for the raid. These may include loss of personnel, equipment, or support assets as well as changes in the enemy situation.
- Develop contingency plans for contact prior to and after actions on the objective.
- Plan CASEVAC and raiding force extraction throughout the entire depth of the operation.
- Plan rally points for units to assemble to prepare for the attack or to assemble after the mission is complete and the force is ready to withdraw.
- Consider logistical factors such as the types and numbers of vehicles and weapons the raiding party will have, movement distance, length of time the raiding party will operate in enemy territory, and expected enemy resistance. Aircraft or linkup provides CASEVAC or resupply of the raiding force, if required, during the withdrawal.
- Conduct withdrawal over a different route than that used to approach the objective.

3-246. The CAB may participate in an artillery raid as part of a division operation. In such an operation, the CAB supports the positioning of artillery. If necessary, the battalion destroys or defeats enemy forces to allow the artillery unit to position itself to strike the necessary enemy targets.

SPOILING ATTACK

3-247. A spoiling attack is an attack launched from the defense to disrupt the enemy's attack preparations. Spoiling attacks focus on the enemy's critical systems and forces that have the greatest impact on their ability to mount an attack. Lucrative targets include C2 systems, intelligence assets, fire support, and logistics. Units can conduct spoiling attacks as often as needed to deny adequate attack preparation to the enemy. The CAB usually conducts a spoiling attack as part of the higher headquarters operation. Spoiling attacks are planned and executed in the same manner as an attack.

SECTION IV – EXPLOITATION AND PURSUIT

3-248. Both exploitation and pursuit are offensive operations that usually follow a successful MTC or attack. An exploitation takes full advantage of offensive success, following up initial gains, and making permanent the temporary effects already achieved. A pursuit differs from exploitation in that its primary function is to complete the destruction of the targeted enemy force. Pursuit operations begin when an enemy force attempts to conduct retrograde operations.

EXPLOITATION

3-249. The exploitation is conducted to take advantage of a successful MTC or attack. Exploitation prevents the enemy from reconstituting an organized defense or conducting an orderly withdrawal. The keys to successful exploitation are speed in execution and maintaining direct pressure on the enemy.

3-250. The unit conducting an exploitation moves rapidly to the enemy's rear area using MTC techniques, avoiding or bypassing enemy combat units, and destroying lightly defended and undefended enemy installations and activities. Bypassed enemy forces are reported to brigade headquarters for destruction by follow-and-support forces. The unit is usually assigned an objective deep in the enemy rear based on the higher commander's intent. This objective may be one that will contribute significantly to the destruction of organized resistance or one for orientation and control.

3-251. The conditions for exploitation develop very quickly. Often the lead unit in contact identifies the collapse of the enemy's resistance. The BCT commander must receive accurate assessments and reports of the enemy situation to capitalize on the opportunity for exploitation.

3-252. Should the CAB conduct exploitation as part of a larger operation, it might receive the mission to seize a terrain-oriented objective. In this case, the battalion avoids decisive engagement and moves to the objective as quickly as possible. If assigned a force-oriented objective, the battalion seeks and destroys enemy forces anywhere within its AO. The exploitation ends when the enemy reestablishes its defense, all organized enemy resistance breaks down, or the friendly force culminates logistically or physically.

3-253. The exploitation continues for as long as the opportunity permits. The initial plan must ensure that adequate supply of classes III, V, VIII, and IX are available to support the unit. The momentum of the exploitation must not be slowed because of lack of support. Aerial resupply may be requested during the exploitation. (See FM 3-90-1 for more information.)

PURSUIT

3-254. The pursuit normally follows a successful exploitation. It differs from an exploitation in that a pursuit is oriented primarily on the enemy force rather than on terrain objectives. While a terrain objective may be designated, the enemy force is the primary objective. A pursuit is ordered when the enemy can no longer maintain a coherent position and tries to escape.

3-255. The pursuit is conducted using a direct pressure force, an encircling force, and a follow-on support force. The CAB may comprise or be part of any of these forces. The direct-pressure force denies the enemy units the opportunity to rest, regroup, or resupply by repeated hasty attacks to force them to defend without support or to stay on the move. The direct-pressure force envelops, cuts off, destroys, and harasses enemy elements. The encircling force moves with all possible speed to get in the enemy rear, block their escape, and, with the direct-pressure force, destroy them. The encircling force advances along routes parallel to the

enemy's line of retreat to establish positions ahead of the enemy main force. The follow-and-support force is organized to destroy bypassed enemy units, relieve direct-pressure force elements, secure line of communications, and secure key terrain, or guard prisoners or key installations.

3-256. Engineer mobility and countermobility capabilities are instrumental in sustaining the rate of advance and hindering the enemy's withdrawal. Engineers prepare the route of advance and support the lateral dispersion of units transitioning to the pursuit and the movement of the reserve. During the pursuit, the commander must plan for engineers to provide support bridging and emergency road repairs to sustain the tempo of the pursuit. The commander also plans to use engineer capabilities to block any bypassed enemy's withdrawal routes by using antitank and command-operated mines, demolitions, and obstacles.

3-257. Sustainment units should plan for increased demand for fuel and maintenance as the tempo of operations increases. In the pursuit, priority for sustainment normally goes to units having the greatest success. Sustainment planners need to anticipate success since the depth of the pursuit depends on the capability of sustainment assets to support the operation. The sustainment elements supporting the pursuing force should be as mobile as possible. Sustainment planners are particularly concerned with supporting the encircling force, such as providing CASEVAC over possibly unsecured LOCs. The commander may need aerial resupply or heavily guarded convoys to support this force. Security for sustainment convoys and LOCs are major planning considerations.

3-258. The commander uses all available sustainment assets to provide essential support to the force pursuing the enemy. The pursuit plan must result in a force prepared to conduct wide-ranging operations using all available maneuver assets throughout the AO to complete the destruction and morale collapse of the enemy force. (See FM 3-90-1 for more information.)

SECTION V – TRANSITIONS

3-259. The CAB spends minimum time after concluding an engagement or actions on the objective to consolidate and reorganize before continuing the attack. If the CAB must consolidate and reorganize, the commander decides the best time and location; this facilitates future operations and provides force protection. The CAB must maintain local security when performing consolidation and reorganization activities.

CONSOLIDATION

3-260. *Consolidation* is organizing and strengthening in newly captured position so that it can be used against the enemy (FM 3-90-1). The CAB may need to reorganize, avoid culmination, prepare for an enemy counterattack, or allow time for movement of adjacent units. The CAB commander makes consolidation plans before every mission, updates them during the attack, and passes them to units as the attack is completed. Consolidation actions include:

- Establishing contact (electronic, physical, or both) with adjacent friendly units.
- Reestablishing communications (if required).
- Eliminating pockets of enemy resistance.
- Establishing security consistent with the threat.
- Preparing defensive positions.
- Clearing obstacles or improving lanes to support friendly movement and reorganization activities.
- Planning and preparing for future operations.
- Conducting site exploitation and processing any detainees.
- Maintaining contact with the enemy and conducting reconnaissance.
- Cross-leveling ammunition and other supplies and conducting emergency resupply.

3-261. The CAB maintains contact with the enemy by redirecting the scout platoon, directing small-unit patrols, pulling the latest intelligence from the BCT S-2, and by conducting limited objective attacks.

REORGANIZATION

3-262. Reorganization planning begins before and continues during the attack as losses occur. *Reorganization* includes all measures taken by the commander to maintain unit combat effectiveness or return it to a specified level of combat capability (FM 3-90-1). Companies must feed reports to the battalion as losses occur so movement of needed resupply or replacements can begin promptly. If extensive reorganization is required, the CAB conducts it during consolidation. Reorganization tasks include the following:

- Reestablishing the chain of command, key staff positions, and CP facilities.
- Treating and evacuating casualties.
- Recovering and repairing damaged equipment as necessary.
- Reestablishing digital connectivity if required.
- Conducting resupply and refueling operations.
- Repositioning mission command facilities, communications assets, and logistics for future operations.
- Reorganizing company teams and platoons if required.

CONTINUING OPERATIONS

3-263. For all attacks, the CAB should plan to exploit success. However, at the conclusion of an engagement, the commander may be forced to defend. For short defensive operations, units make use of the existing terrain to enhance their survivability. If a longer defense is envisioned, engineer capabilities immediately should refocus their efforts on providing survivability support (fighting positions and similar activities). Engineer capabilities should do this even as they sustain mobility and integrate countermobility into the planned defense. The CAB commander considers the higher commander's concept of operations, friendly capabilities, and the enemy situation when making the decision to defend or continue offensive tasks.

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Chapter 4
Defense

Defensive operations defeat an enemy attack, gain time, economize forces, and develop conditions favorable for operations focused on offensive and stability operations. Defensive operations alone normally cannot achieve a decision. Their purpose is to create conditions for a counteroffensive that allows Army forces to regain the initiative. Defensive operations are conducted to retain decisive terrain or deny a vital area to the enemy, attrite or fix the enemy as a prelude to offensive operations, surprise action by the enemy, or increase the enemy's vulnerability by forcing the enemy commander to concentrate subordinate forces. As part of the BCT, the CAB can defend, conduct retrograde operations, counterattack, or perform security operations. Often, a defensive engagement requires the CAB to execute several of these operations. Even while the BCT conducts a defense, the CAB exploits opportunities to conduct offensive operations within its AO to deprive the enemy of the initiative and create the conditions to assume the offense.

SECTION I – BASICS OF DEFENSE

4-1. The main purpose of the defense is to force or deceive the enemy into attacking under unfavorable circumstances, defeat or destroy their attack, and regain the initiative for the offense. The defending commander attempts to determine the location of the fight. The commander prepares the terrain and conditions to the battalion's advantage while simultaneously denying the enemy adequate intelligence. Defense is a temporary measure that forces use to identify or exploit enemy weaknesses. Use of the defense provides the opportunity to transition to the offense. In general, the CAB defends to—

- Defeat or destroy an attacking enemy.
- Increase the enemy's vulnerability by forcing them to concentrate their forces.
- Gain time.
- Deny enemy entry into an area or retain terrain.
- Protect a friendly force.
- Economize forces in one area to apply decisive force elsewhere.
- Prepare to resume the offensive.
- Develop favorable conditions for offensive actions.
- Force the enemy to reveal their scheme of maneuver in order to counterattack.
- Reduce the enemy's capability for offensive operations.

CHARACTERISTICS OF THE DEFENSE

4-2. Because of its advantages in information, lethality, and mobility, the CAB can defend in contiguous as well as noncontiguous frameworks. The information collection capabilities provided by the BCT, as well as those within the CAB structure, enable the CAB to better locate and identify the enemy's decisive and shaping efforts. Successful defenses share the following characteristics: disruption, flexibility, maneuver, mass and concentration, operations in-depth, preparation, and security. (See ADP 3-90 for a discussion of these characteristics.)

- Disruption. The defender disrupts enemy tempo and synchronization, ability to mass fires, reconnaissance and security forces, and main body formations.

- Flexibility. The defense requires preparation in-depth, use of reserves, the ability to shift the CAB's main effort, supplementary positions within the defense, and the ability to counterattack.
- Maneuver. Maneuver allows the commander to achieve a position of advantage over the enemy, mass and concentrate combat power, and to take full advantage of terrain.
- Mass and concentration. The defender shapes and decides the engagement by massing the effects of combat power in time and space and accepting risk in some areas to mass effects elsewhere.
- Operations in-depth. Simultaneous application of combat power throughout the depth of the defender's AO allows for the destruction of the enemy with attacks to its flanks, which are most exposed and vulnerable.
- Preparation. Preparation provides the defender time to study the terrain and the enemy avenues of approach and schemes of maneuver. The commander also identifies EAs, the location and integration of obstacles, unit positioning, integration of indirect fires, and assigns missions accordingly. Additional defensive preparations include: designate, prioritize, and prepare survivability positions, position forces in-depth, reinforce terrain with obstacles to favor the defender, designate a reserve, and conduct rehearsals, to include employing the reserve and counterattack forces.
- Security. Since a force defends to conserve combat power for use elsewhere, or later, commanders must secure the force. The CAB ensures security by employing reconnaissance elements throughout the depth and breadth of its assigned AO. Deception and information operations aid in securing the force and confuse the enemy as to the CAB's manner of defense. The CAB secures the force through integrated security operations tied with the reconnaissance plan and BCT information collection capabilities. The commander must give the scout platoon-specific PIR to enable an efficient occupation of the AO and to position itself for the preparation and execution of the defense. Depending on the nature of the threat, additional subordinate units may be required to augment the scout platoon to secure the battalion AO during defensive preparations.

FORMS OF THE DEFENSE

4-3. Subordinate forms of defense have special purposes and have their own unique planning considerations. The Army recognizes three forms of defense:

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

4-4. When conducting a subordinate form of the defense, proper evaluation and organization of the battalion's AO are essential to maximize the effectiveness of the defending force. The CAB commander exploits the advantages of occupying the terrain where the battle will occur and positions the battalion to engage the attacker from locations that give the defending force an advantage.

4-5. In all three forms, the commander uses existing and reinforcing obstacles and other key terrain to impede the enemy's movement. The commander selects terrain that allows the massing of friendly fires but forces the enemy to commit forces piecemeal into friendly EAs, exposing portions of the enemy force for destruction without giving up the advantages of fighting from protected positions. The three forms of the defense provide distinct advantages to the battalion and its subordinate units during an area defense and the operations of the fixing force during a mobile defense.

DEFENSE OF A LINEAR OBSTACLE

4-6. The commander may conduct an area or mobile defense along or behind a linear obstacle. When incorporating a linear obstacle into a mobile defense the commander may accept some risk by giving the enemy the opportunity to cross a portion of the obstacle in an effort to channel forces into EAs or routes advantageous to the defense. When defending from a linear obstacle such as a mountain range or river, the CAB can dig into protected positions and prepare to reinforce any successful penetration into the linear defense. A disadvantage to the defense of a linear obstacle is the lack of depth it provides the defender.

4-7. The commander applies the same considerations that would apply to an area and mobile defense when planning to defend a linear obstacle. While the linear obstacle may provide increased natural protection, it may offer the enemy the ability to exploit a penetration. The commander should consider how to best institute economy of force to concentrate effects in the event of any successful penetration along the breadth of the defense.

PERIMETER DEFENSE

4-8. A perimeter defense is a defense oriented in all directions. The CAB and company teams use it for self-protection and to protect other units located within the perimeter. The unit establishes a perimeter defense when it must hold critical terrain in areas where the defense is not tied in with adjacent units. Units may also form a perimeter when they have been bypassed and isolated by the enemy and must defend in place. These differences are in contrast to the strong point defense, in which the position is tied in with the rest of the defense and considerable time and resources are spent to prepare the ground.

4-9. In an urban environment, a CAB may form a perimeter defense around key terrain, such as a public utility, communications center, government center, or traffic circle that enhances movement. It may protect facilities useful to its sustainment, or the welfare, economy, and support of the local populace. (See ATTP 3-06.11 for more information.)

4-10. While in a perimeter defense, the CAB should consider—

- Placing security as far out as possible.
- Ensuring subordinate units have contact points and either interlocking sectors of fire or are coordinating active patrols in deadspace.
- Identifying passage points and rehearse lane openings and closures for sustainment and other activities that require units to pass in and out of the perimeter.
- Retaining key terrain.
- Establishing the reserve in a centralized location that can rapidly react to multiple enemy directions of attack.
- Maintaining mission command.
- Ensuring the continuation of sustainment operations and sustainment security.

REVERSE-SLOPE DEFENSE

4-11. The CAB organizes a reverse-slope defense to use a topographical crest to mask the defender from the attacker's observation and from supporting direct fire. This provides observation across the entire front and security to the CAB's MBA. Additionally, the reverse-slope defense takes away any stand-off advantage the enemy may have over friendly forces. The goal of this technique is to make the enemy commit forces against the forward slope of the defending CAB's EA, causing enemy forces to attack in an uncoordinated fashion across the exposed topographical crest.

Planning for a Reverse-Slope Defense

4-12. The CAB commander can adopt a reverse-slope position for elements of the CAB when—

- Enemy fire makes the forward slope untenable.
- Lack of cover and concealment on the forward slope makes it untenable.
- The forward slope has been lost or has not yet been gained.
- The forward slope is exposed to enemy direct fire weapons fired from beyond the effective range of the defender's weapons. Moving to the reverse-slope removes the attacker's standoff advantage.
- Positioning on the forward slope would create a dangerous salient or reentrant in friendly lines.
- The defender must avoid creating a dangerous salient or reentrant in friendly lines.
- Surprising and deceiving the enemy as to the true location of the CAB defensive positions is essential.

Forward Edge of the Position

4-13. The forward edge of the position should be within small-arms range of the crest. It should be far enough from the crest that fields of fire allow the defender time to place well-aimed fire on the enemy before they reach friendly positions. A reverse-slope position is most effective when units on adjacent terrain can place flanking fires on the forward slope.

Security Force

4-14. The CAB should establish a security force forward of the primary EA to stop or delay the enemy, disorganize their attack, and deceive them to the location of the defensive position. When this security element withdraws, it must conduct either a RPOL or move to the flanks of the CAB, which then assumes responsibility for the EA.

Observation Posts

4-15. The unit establishes OPs on or forward of the topographical crest. This allows long-range observation over the entire front and indirect fire coverage of forward obstacles. OPs are usually provided by the unit that owns the terrain being observed and may vary in size from a few Soldiers to a reinforced squad. They should include FOs. At night, their number should be increased to improve security.

DEFENSIVE OPERATIONS

4-16. There are three types of defensive operations: area defense, mobile defense, and retrograde (see sections IV, V, and VI). Each of these contains elements of the others and usually contains static and dynamic aspects. CABs serve as the primary maneuver elements, or terrain controlling units, for the BCT in all types of defensive operations. They can defend AO or positions, or they can serve as security forces or reserves as part of the BCT coordinated defense.

PLANNING

4-17. Planning a defensive operation is a complex effort requiring detailed planning and extensive coordination. In the defense, synchronizing the effects of the CAB combat and supporting systems enables a commander to defeat the enemy commander's plan and destroy their forces by applying overwhelming combat power. As an operation evolves, the commander must know the need to shift the main effort and shaping operations to press the fight and keep the enemy off balance.

INTELLIGENCE PREPARATION OF THE BATTLEFIELD

4-18. As with all tactical planning, IPB is a critical part of defensive planning. It helps the commander define where to concentrate combat power, where to accept risk, and where to plan potential decisive actions. To aid in the development of a flexible defensive plan, the IPB must present all feasible enemy COAs based off of extensive analysis of enemy capabilities overlaid onto a highly detailed understanding of terrain. (See ATP 2-01.3 for more information.)

4-19. The intelligence staff identifies when, where, with what strength, and how the enemy will attack. This allows the commander to identify opportune times to conduct spoiling attacks and reposition forces. The entire staff also identifies threats to support and consolidation areas, such as enemy special purpose forces and irregular activities, which may interfere with control of the defense. The intelligence staff determines—

- The threat intent, objectives, and associated DPs tied to the decisive and/or key terrain associated with the operation.
- General trafficability and mobility considerations, ground mobility corridors, avenues of approach, intervisibility lines within key areas, specific terrain analysis, and weather effects on the operation.
- The likely composition, focus, routes, and a time window for arrival of enemy reconnaissance formations.
- The likely scheme of maneuver for the attacking enemy force.

- Intent, activities, orientation, and predicted locations for: enemy C2 and communications CPs; enemy artillery formations and air defense systems; enemy aviation units and UAS assets; threat EW capabilities; enemy engineer support, chemical support, and SOF; and enemy activities in friendly consolidation areas.
- The likely use and intent for threat cyberspace capabilities and likely enemy use of deception.
- The likely location of and time window to commit enemy reserve forces, likely use of second echelon enemy forces to isolate or encircle friendly forces, and likely times and locations where the friendly commander can launch a spoiling attack.

COMMANDER'S VISION

4-20. The first step is the expression of the commander's vision of anticipated enemy actions integrated with the staff's IPB. The CAB IPB and the BCT IPB should not differ significantly. Both should give the CAB commander and staff a clear understanding of how the BCT commander envisions the enemy will fight and the enemy's plan for the operation. From that, the CAB commander and staff refine the IPB to focus on the details of the operation in the CAB AO. The BCT commander usually defines where and how the BCT will defeat or destroy the enemy. The commanders define how they envision the CAB will execute its portion of the brigade fight.

How and Where to Defeat the Enemy

4-21. The commander and staff base their determination of how and where to defeat the enemy on where they believe the enemy will go, the terrain, and the forces available. The brigade commander may define a defeat mechanism that includes the use of single or multiple counterattacks to achieve success. The CAB commander and staff analyze their unit's role in the BCT fight and determine how to achieve success. In an area defense, the CAB usually achieves success by massing the cumulative effects of obstacles and fires to defeat the enemy forward of a designated area, often in conjunction with a BCT counterattack. In a delay operation, the CAB achieves success by combining maneuver, fires, obstacles, and avoidance of decisive engagement until conditions are set to achieve the desired effect of gaining time or shaping the battlefield for a higher echelon counterattack.

Forces and Assets Available

4-22. The commander and staff analyze the forces and assets available, paying particular attention to the obstacle assets and fire support allocated by the BCT. The staff must define the engineer and fire support allocation in terms of capability. For example, it should define engineer capability in terms of the number of obstacles of a specific effect and the number and type of fighting positions engineers can emplace or create in the time available. Fire support analysis should include the number of targets to be engaged, at what point in the battle it should be engaged, and with what expected result. The obstacles and fires estimates must be compared with what type of enemy formation the CAB will defend against to determine what kind of effects they will have.

4-23. Proper task-organization is essential for successful defensive operations. The CAB commander allocates assets where needed to accomplish specific tasks. When developing task-organization, the commander must consider all phases of mission execution. Changes in task-organization may be required to accomplish different tasks during mission execution. The CAB commander ensures the task-organization maximizes the combat power available.

Effects

4-24. With a definite understanding of the assets available, the commander and staff determine what effects forces, fires, and obstacles must achieve on enemy formations (by avenue of approach) and how these effects will support the BCT's and CAB's defeat mechanisms. They define the purpose for subordinate units and establish priorities for mobility, protection, and sustainment. They develop obstacle and fire support plans concurrently with the defensive force array, again defining a task and purpose for each obstacle and target in keeping with the commander's essential tasks for fire support and intended obstacle effects. The desired end

state is a plan that defines how the commander intends to mass the effects of direct and indirect fires with obstacles and use of terrain to shape the battlefield and defeat or destroy the enemy.

SECTION II – DIRECT FIRE CONTROL IN THE DEFENSE

4-25. Defensive fire control and fire planning are key elements of successful defensive operations. Since CABs are likely to conduct defensive operations against enemy forces with numerical superiority, it is vital that the CAB commander and staff have a thorough understanding of direct fire planning. The CAB S-3 section reviews company OPORDs to ensure it plans and executes an integrated and synchronized direct fire plan.

PRINCIPLES OF FIRE CONTROL

4-26. The principles of fire control in the defense are the same as those in the offense. They include—

- Mass the effects of fire.
- Destroy the greatest threat first.
- Avoid target overkill.
- Employ the best weapon for the target.
- Minimize friendly exposure.
- Prevent fratricide.
- Plan for extreme limited visibility conditions.
- Develop contingencies for diminished capabilities.

FIRE CONTROL MEASURES

4-27. Fire control measures are the means by which the commander or subordinate leaders control fires. Application of these concepts, procedures, and techniques assists the unit in acquiring the enemy, focusing fires on them, distributing the effects of the fires, and preventing fratricide. At the same time, no single measure is sufficient to control fires effectively. Fire control measures (see table 4-1) are effective only if the entire unit has a common understanding of what they mean and how to employ them. The following paragraphs discuss those fire control measures used in defensive operations.

Table 4-1. Common defensive fire control measures

Terrain-Based Fire Control Measures	*Threat-Based Fire Control Measures*
Engagement area (EA)	**Trigger**
Maximum engagement line (MEL)	**Engagement techniques**
Final protective line (FPL)	**Target array**
Direction of fire	Weapons control status (WCS)
Terrain-based quadrant	Engagement priorities
Friendly-based quadrant	Rules of engagement (ROE)
Target reference point (TRP)	Weapons ready posture
Restrictive fire line (RFL)	Weapons safety posture
Sector of fire	Fire patterns

Note. Fire control measures that are in bold print (in table 4-1) are more defensive in nature; however, all fire control measures can be applied to offense and defense operations.

TERRAIN-BASED FIRE CONTROL MEASURES

4-28. As in the offense, the commander uses terrain-based fire control measures to focus and control fires on a particular point, line, or area rather than on a specific enemy element. The following paragraphs describe the terrain-based fire control measures that are common to defensive operations.

Engagement Area

4-29. This fire control measure is an area along an enemy avenue of approach where the commander intends to mass the fires of available weapons to destroy an enemy force. The size and shape of the EA is determined by the degree of relatively unobstructed intervisibility available to the unit's weapons systems in their firing positions and by the maximum range of those weapons. Typically, commanders delineate responsibility within the EA by assigning each unit a sector of fire or direction of fire.

Maximum Engagement Line

4-30. A maximum engagement line is the linear depiction of the farthest limit of effective fire for a weapon or unit. This line is determined by the weapon's or unit's maximum effective range and by the effects of terrain. For example, slope, vegetation, structures, and other features provide cover and concealment that might prevent the weapon from engaging out to the maximum effective range. A maximum engagement line serves several purposes. The commander can use it to prevent crews from engaging beyond the maximum effective range, to define criteria for the establishment of triggers, and to delineate the maximum extent of area on a sector sketch.

Final Protective Line

4-31. The *final protective line* is a selected line of fire where an enemy assault is to be checked by the interlocking fires from all available weapons and obstacles (ATP 3-21.10). The unit reinforces this line with protective obstacles and with final protective fires whenever possible. Initiation of the final protective fires is the signal for elements, crews, and individual Soldiers to shift fires to their assigned portion of the final protective line. Conservation of ammunition is not a factor when executing final protective fires.

THREAT-BASED FIRE CONTROL MEASURES

4-32. The commander uses threat-based fire control measures to focus and control fires by directing the unit to engage a specific enemy element rather than to fire on a point or area. The following paragraphs describe the threat-based fire control measures that are common to defensive operations.

Trigger

4-33. A trigger is a specific set of conditions that dictates initiation of fires. Often referred to as engagement criteria, a trigger specifies the circumstances in which subordinate elements are to engage the enemy. The commander establishes the criteria based on friendly or enemy events. For example, the trigger for a friendly platoon to initiate engagement could be three or more enemy combat vehicles passing or crossing a given point or line. This line can be any natural or man-made linear feature, such as a road, ridgeline, or stream. It could also be a line, perpendicular to the unit's orientation, delineated by one or more reference points.

Engagement Techniques

4-34. Engagement techniques are effects-oriented fire distribution measures:

- Point fire.
- Area fire.
- Simultaneous fire.
- Alternating fire.
- Observed fire.
- Sequential fire.
- Volley fire.

Point Fire

4-35. Point fire entails concentrating the effects of a unit's fire against a specific, identified target such as a vehicle, machine gun bunker, or an antitank guided missile position. When leaders direct point fire, all of the unit's weapons engage the target and fire until the unit destroys the target or until the required time of suppression has expired. Employing converging fires from dispersed positions makes point fire more effective because the target is engaged from multiple directions. The unit can initiate an engagement using point fire against the most dangerous threat, and then revert to area fire against other, less threatening point targets.

Area Fire

4-36. Area fire involves distributing the effects of a unit's fire over an area in which enemy positions are numerous or are not obvious. If the area is large, leaders assign sectors of fire to subordinate elements using a terrain-based distribution method such as the quadrant technique. Typically, the primary purpose of the area fire is suppression; however, sustaining effective suppression requires judicious control of the rate of fire.

Simultaneous Fire

4-37. Units employ simultaneous fire to rapidly mass the effects of their fires or to gain fire superiority. For example, a unit can initiate an SBF operation with simultaneous fire, and then revert to alternating or sequential fire to maintain suppression. Units also employ simultaneous fire to negate the low probability of hit and kill of certain antiarmor weapons. As an example, a rifle squad could employ simultaneous fire with its AT4s to ensure rapid destruction of an enemy light-tracked vehicle that is engaging a friendly position.

Alternating Fire

4-38. In alternating fire, pairs of elements continuously engage the same point or area target one at a time. For example, a company team could alternate fires of two platoons; a tank platoon could alternate the fires of its sections; or an Infantry platoon could alternate the fires of a pair of machine guns. Alternating fire permits the unit to maintain suppression for a longer duration than does volley fire; it also forces the enemy to acquire and engage alternating points of fire.

Observed Fire

4-39. Units typically use observed fire when the company team is in protected defensive positions with engagement ranges in excess of 2,500 meters. Units employ observed fire between elements of the company team, such as the tank platoon lasing and observing while the IFV platoon fires, or between sections of a platoon. The commander or platoon leader directs one element or section to engage. The remaining elements or section observes fires and prepares to engage on order in case the engaging element consistently misses its targets, experiences a malfunction, or runs low on ammunition. Observed fire allows mutual observation and assistance while protecting the location of the observing elements.

Sequential Fire

4-40. In sequential fire, the subordinate elements of a unit engage the same point or area target—one after another—in an arranged sequence. For example, a mechanized Infantry platoon might sequence the fires of its four IFVs to gain maximum time of suppression. Sequential fire also can help to prevent the waste of ammunition, as when an Infantry rifle platoon waits to see the effects of the first Javelin before firing another. Additionally, sequential fire permits elements that have already fired to pass on information they have learned from the engagement. An example would be an Infantryman who missed an enemy light-tracked vehicle with AT4 fires passing range and leads information to the next Soldier preparing to engage an enemy light-tracked vehicle with an AT4.

Volley Fire

4-41. Units fire volleys to rapidly mass the effects of their fire or to gain fire superiority. For example, a squad could initiate an SBF operation with volley fire, and then use alternating or sequential fire to maintain

suppression. Firing in volleys also increases the chance that certain antiarmor weapons hit and kill their targets. For example, to rapidly destroy an enemy light-tracked vehicle that is engaging a friendly position, the rifle squad can volley AT4 fire onto it.

Target Array Method

4-42. The target array method enables the commander to distribute fires when the enemy force is concentrated and terrain-based controls are inadequate. Units create this threat-based distribution measure by superimposing a quadrant pattern over an enemy formation. The pattern centers on the enemy formation, with the axis running parallel and perpendicular to the enemy's direction of travel. The target array fire control measure is effective against an enemy with a well-structured organization that uses standard movement techniques and battle drills. However, it could prove less effective against an enemy that presents few organized formations or does not follow strictly prescribed tactics. Units describe quadrants by using their relative locations.

4-43. Generally speaking, quadrants are offensive fire control measures. However, units can employ terrain-based quadrants that use existing or constructed TRPs for defensive operations.

Coordinated Fire Line

4-44. The *coordinated fire line* (CFL) is a line beyond which conventional surface-to-surface direct fire and indirect fire support means may fire at any time within the boundaries of the establishing headquarters without additional coordination but does not eliminate the responsibility to coordinate the airspace required to conduct the mission (JP 3-09). The purpose of the CFL is to expedite the surface-to-surface engagement of targets beyond the CFL, and do this without coordination with the land commander in whose AO the targets are located.

4-45. Usually, a BCT or division establishes the CFL, but the CAB can also establish the CFL, especially in amphibious operations. The CFL is located as close to the establishing unit as possible without interfering with the maneuver forces. There is no requirement for the CFL to be placed on identifiable terrain. (See FM 3-09 for additional information.)

SECTION III – ENGAGEMENT AREA

4-46. An *engagement area* is an area where the commander intends to contain and destroy an enemy force with the massed effects of all available weapons and supporting systems (ADP 3-90). The success of any engagement depends on how effectively the CAB integrates the direct fire plan, the indirect fire plan, the obstacle plan, Army aviation fires, CAS, and the terrain within the EA to achieve the battalion's tactical purpose.

4-47. Effective use of terrain reduces the effects of enemy fires, increases the effects of friendly fires, and facilitates surprise. Terrain appreciation—the ability to predict its impact on operations—is an important skill for every leader. For tactical operations, commanders analyze terrain using the five military aspects of terrain obstacles, avenues of approach, key terrain, observation and fields of fire, and cover and concealment (OAKOC). (See ATP 2-01.3 and ATP 3-34.80 for information on analyzing the military aspects of terrain.)

DEVELOPING THE ENGAGEMENT AREA

4-48. The CAB commander develops the EA using the seven steps to EA development, to include engagement criteria and priority, to influence each enemy avenue of approach. The framework for EA development is commonly addressed over seven steps:

- Identify all likely enemy avenues of approach.
- Determine likely enemy schemes of maneuver.
- Determine where to kill the enemy.
- Plan and integrate obstacles.
- Emplace weapon systems.

- Plan and integrate indirect fires.
- Rehearse the execution of operations in the EA.

Note. Steps 4 through 6 may be executed in any order or simultaneously but proper adhering to these steps as a framework for developing the EA greatly increases the chances of success. (See ATP 3-90.1 for more information on EA development.)

4-49. Within the CAB's MBA, the commander determines the size and shape of the EAs by the relatively unobstructed LOS from the weapon systems firing positions and the maximum range of those weapon systems. Once the commander and staff select EAs, the commander arrays available forces and weapon systems in positions to concentrate overwhelming effects into these areas. The commander routinely subdivides EAs into smaller EAs for subordinates using one or more TRPs or by key terrain or prominent terrain feature. The commander assigns sector of fires to subordinates to ensure complete coverage of EAs and to prevent fratricide and friendly fire incidents. Responsibility for an avenue of approach or key terrain is never split.

4-50. The critical planning piece for maneuver and fire support during defensive operations is EA development. During IPB, the commander and staff consider weather, enemy, and terrain to determine and analyze ground and air avenues of approach. Specific considerations for the analysis of avenues of approach include the following:

- Determining primary and secondary avenues of approach and mobility corridors.
- Determining key and decisive terrain. The staff identifies areas along the avenues of approach where speed and deployment of enemy formations are limited and where formations are broken up and exposed to counterattack. Key and decisive terrain will facilitate blocking the avenue of approach.
- Determining from the enemy's point of view—
  - Maneuver space. Considering choke points and natural obstacles, how many armored vehicles and, hence, what size unit does each avenue of approach support?
  - Trafficability. How does soil trafficability, ruggedness of terrain, weather, and limited visibility affect movement rates?
  - Cover and concealment. What terrain allows movement as close to the defender as possible using column formations before deploying into assault formations?
  - Observation and fields of fire. What terrain is suitable for supporting direct fire by tanks, antitank guided missiles, attack helicopters, or self-propelled artillery?
  - Key or decisive terrain. What terrain gives the enemy a decided advantage over the defender?
  - Limited visibility effects. Smoke, dust, fog, and darkness all affect movement. During such periods, roads, ridgelines, and other features that facilitate navigation increase the value of an avenue of approach.
  - Enemy air avenues of approach: Which avenues and terrain are suitable for attack helicopters and aircraft?
- Determining possible and probable enemy COAs.
- Developing NAIs and TAIs to determine the attacker's intent and lessen friendly reaction time.

UNIT POSITIONING

4-51. The commander decides where to defeat the enemy based on IPB determination of avenues of approach, key terrain, and enemy vulnerabilities. The commander and staff then develop COAs and determine tentative unit positions.

4-52. The commander arrays company-size forces against battalion-size avenues of approach. In doing this, the commander considers the positioning of platoons. The positions must provide an integrated defense so that all available weapons systems can cover the approaches. Positioning should allow the shifting of fires

and forces to meet enemy actions during the battle. Once this is completed, consideration is given to the formation of company teams.

4-53. The CAB organizes and assigns missions in the defense based on the factors of METT-TC and considers the following:

- Dispersion. Units and weapons are dispersed laterally and in-depth to reduce the enemy's ability to suppress and to engage the enemy from multiple directions.
- Cover and concealment. Elements are placed in positions where cover and concealment are available; obvious terrain is avoided. Hide positions are used prior to the no-later-than defend time in order to conceal primary battle positions from enemy observation. A technique to check the adequacy of concealment is to travel approaches from the enemy's direction of movement. Covered routes must be available to allow movement in and between positions and for maneuver against the enemy.
- Flanking fire. Flanking fires are far more effective than frontal fires. Initial positioning of antiarmor weapons for long-range frontage engagements is considered, but primary positions are normally picked to allow flanking fires from defilade positions.
- Security. Position security must include patrolling, OPs, and other measures to provide security. Scout platoons may be augmented to perform counterreconnaissance tasks or company teams may be given security missions forward of the forward edge of the battle area (FEBA).
- Ability to maneuver. Units must be able to concentrate on the avenues of approach being used by the enemy. To do this, on-order positions with sectors of fire and positions in-depth are used.
- Transition to alternate fighting positions. An attacker uses smoke and suppressive fire to limit visibility. The defenders must anticipate and be prepared to move rapidly to predetermined, alternate fighting positions.

RANGE OF WEAPONS SYSTEMS

4-54. When selecting tentative positions for weapons systems, the CAB commander must also consider the effective range and acquisition capabilities of each system. Tanks are positioned to begin engagement of enemy tanks at 2,500 meters. The IFV's 25-mm gun is effective against enemy tracked and wheeled vehicles with a planning range of 1,700 meters. AT4s allow Infantry to defeat flanked armor at ranges up to 500 (300 preferred) meters and light antitank weapons at ranges of 200 meters (150 preferred). The commander considers capabilities of all weapons and systems when selecting EAs, positioning obstacles, designing the defense, and issuing engagement and withdrawal criteria. (See ATP 5-0.2-2 for more detailed information on weapons ranges.)

SUBORDINATE MISSIONS

4-55. The CAB commander sets the scheme of maneuver into motion by assigning missions to company teams. The commander task-organizes to give each team the required assets. The commander allocates operations areas using sectors, battle positions, and strong points, and gives specific tasks for each. EAs, TRPs, terrain that must be retained, and counterattack missions are also included as required. The CAB commander states whether the company teams may accept decisive engagement. When explaining the concept, the CAB commander states disengagement criteria. The commander informs each company team commander of the conditions under which to disengage, for example, when the enemy reaches a point on the ground, or after destroying a certain number of vehicles, or at a certain time or event, or do not disengage until ordered to do so.

4-56. When assigning a mission of holding terrain, the CAB commander considers that significant time is required to hold a battle position and that more time and resources are required for a strong point. Infantry-heavy teams are best suited for retain missions. If there are more missions than combat elements available to perform them, a reserve may be designated and tasked to perform these missions on order.

4-57. When assigning space, the CAB commander ensures that company teams have room to position weapons and to disperse from enemy direct and indirect fires and observation. In relatively open terrain, the distance between IFVs and tanks should be about 150 meters. The commander must consider space requirements for alternate and supplementary positions when allocating space.

4-58. When developing the EA, the commander attempts to maximize the combat power of the IFV and dismounted elements. Dismounted Infantry positions are selected to—

- Defend positions against enemy infantry attack.
- Provide security and collect information by patrolling and establishing OPs, antiarmor ambushes, and roadblocks on secondary approaches.
- Emplace, close, and defend obstacles.
- Ambush and or destroy enemy armored vehicles with handheld antitank weapons.
- Clear fields of fire.

4-59. Battle positions for dismounted Infantry are chosen to hold, or deny, mounted and dismounted avenues of approach to key terrain. Positioning dismounted Infantry on forward slopes may needlessly expose them to long-range direct and observed indirect fires. Positions well forward, to the flanks, or on reverse-slopes that deny approaches to key decisive terrain avoid exposing dismounted Infantry and provide cover and concealment. Dismounted Infantry are best suited for close in fighting in restrictive terrain with limited fields of fire. Dismounted Infantry should be positioned so they can only be engaged enemy direct fire inside the ranges of their antitank weapons.

FIRES

4-60. Supporting fires are planned and used—

- At long-range to disrupt, slow, and disorganize the enemy as they transition from movement to maneuver formation and force them to button-up.
- On likely enemy overwatch positions.
- To provide illumination.
- To cover disengagement, movements, and counterattacks.
- Along covered avenues of approach to destroy enemy dismounted infantry. Mortars and field artillery are particularly effective against dismounted infantry. Final protective fires used to destroy assaulting infantry are planned close in to battle positions and are fired to break the assault.
- To defeat dismounted breaching.
- To provide smoke for disengagement.
- To deliver a family of scatterable mines (known as FASCAM) on avenues of approach where movement is canalized and to close lanes, gaps, or enemy breaches in obstacles. FASCAM is most effective when tied in with other obstacles and covered by observation and direct fire.
- To suppress enemy forward air defense.

4-61. The CAB commander develops the fire support concept and tasks concurrently with the scheme of maneuver. The FSO then coordinates with the engineer, mortar platoon leader, JTAC, S-3 air, and aviation LNO to develop an initial fire plan. This plan is refined based upon input from company commanders and FSOs. The company FSO executes fires. The CAB commander and FSO may orchestrate this by establishing an event-oriented scheme of fire support. For example, "When the enemy lead element reaches Phase Line Red, Company A will fire target AB4200; when the enemy reaches and attempts to breach the obstacle, Company C will fire target AB4400; if the enemy attempts to bypass on the left, Company D will fire FASCAM at target AB4500."

4-62. If the CAB is allocated field artillery priority targets, they are planned on the most dangerous enemy avenues of approach. They may be sub allocated to units covering these approaches. Priority targets are shifted as the battle develops. The commander also designates priority of fires, normally to the forward security force initially, then to the unit designated as the CAB main effort.

ENGINEERS

4-63. The commander and TF engineer establish an overall priority of engineer tasks to be accomplished. Specific priorities may be further assigned to key pieces of engineer equipment. As an example, bulldozer priority may go to key vehicle fighting positions and high mobility engineer excavator begin dismounted Infantry positions while engineer squads begin work on obstacles. Priority tasks and allocation of engineer

assets must support the main effort and work must begin as soon as possible. To maximize time available, the CAB may escort nonhabitual engineer attachments from EA to EA to ensure asset handover is completed as efficiently as possible. The CAB may provide manpower, additional equipment, and supplies to support the engineer effort in order to increase the obstacle's effectiveness.

4-64. Obstacles support the main effort in the defense. Obstacles are grouped into two categories—existing and reinforcing. Considerations in the use of obstacles are—

- Obstacles are integrated into the scheme of maneuver and used by defending forces to canalize the enemy into areas where they are the most vulnerable to concentrated direct and indirect fires and to hold them there as long as possible.
- Obstacles are planned where they can be observed and covered by direct fire and are designated as indirect fire targets. A specific company team is assigned responsibility for overwatching each obstacle. This includes protecting the obstacle during limited visibility and checking it at first light to ensure that it has not been breached.
- Point obstacles placed at irregular patterns can be used along secondary restrictive approaches to slow movement. They might not always be covered by direct fire, but must always be observed and covered with indirect fire.
- Emplacement time is reduced and effectiveness increased when obstacles reinforce natural or manmade obstacles. Each individual obstacle must be carefully designed for the location it will occupy and must overlap on each side with the existing obstacle it ties into. The critical width of an obstacle is the distance from an existing obstacle to another existing obstacle (or to another reinforcing obstacle) and not the width of a road or highway through the existing obstacle.
- Obstacles must not hinder friendly movement. Lanes and gaps through obstacles may be needed to allow movement. If so, a plan must prescribe who closes the lane or gap, the criteria, the signal, and when and where to report the closure. Company team commanders usually control and close gaps and lanes in their areas.
- Obstacles are employed in-depth. Obstacles must be far enough apart so that each one will require a new deployment of the enemy's breach force and equipment.
- Hasty protective obstacles are used for local, close in protection and employed to defeat mounted and dismounted threats. They can be laid by company teams without regard to any standard pattern or density. Normally, they are laid by units using material from their basic loads.
- Obstacles are emplaced to surprise the enemy. Security forces must be forward to deter enemy observation of obstacle construction. Obstacles should be in defilade and camouflaged if possible.
- Deception obstacles can be used to confuse the enemy.
- The exact position of obstacles is coordinated between the engineer, company team commander, and the FSO to ensure adequate coverage. Since planned obstacle sites are often adjusted on the ground to accommodate direct fire coverage, the FSO must reconfirm target locations after obstacles are emplaced.
- In addition to siting obstacles to increase the effectiveness of direct fires, the commander maximizes the effectiveness of the obstacles by use of indirect fire support:
  - Smoke can be used to conceal the construction and location of obstacles.
  - FASCAM, planned by engineers and fires, can be used to cut escape routes or reinforce obstacles already in place.
  - Field artillery and mortars can slow or stop dismounted breaching efforts.

4-65. Berms are not created since the freshly dug ground can be easily detected, and berms are not effective against kinetic energy rounds. Hull-defilade vehicle fighting positions take about one hour to complete, depending upon the type of soil. (Turret defilade positions take about two hours to construct and a two-step hide position requires about three hours.)

4-66. Protective positions for dismounted Infantry are constructed using available material that will support at least 18 inches of sandbags, rock, or dirt on top. This will protect against shrapnel from air bursts but not direct hits. Fighting positions for vehicles are constructed with engineer assets such as dozers and are built to hull or turret defilade standards. Protective positions for critical systems on the CAB or BCT protection

prioritization list are constructed using engineer assets. Critical systems include C2 nodes, sustainment nodes, and radars, prioritized based on time available and available engineer resources.

SECTION IV – AREA DEFENSE

4-67. The *area defense* is a type of defensive operation that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright (ADP 3-90). Outright destruction of the enemy may not be a criterion for success. The focus is on retaining terrain where the bulk of the defending force positions itself in mutually supporting positions and controlling the terrain between positions. The defeat mechanism is fires into EAs, which reserve units can supplement. The commander uses the reserve force to reinforce fires, add depth, block penetrations, restore positions, or counterattack to destroy enemy forces and seize the initiative. Units conduct area defenses when—

- The mission requires holding certain terrain for a specific period of time.
- There is enough time to organize the position.
- The CAB has less mobility than the enemy does.
- The terrain limits counterattacks to a few probable employment options.
- The terrain affords natural lines of resistance and limits the enemy to a few well-defined avenues of approach, thereby restricting the enemy's maneuver.

TYPES OF AREA DEFENSE

4-68. The commander has two options when conducting an area defense: forward defense and defense in-depth. While the CAB commander usually selects the option of area defense to use, the higher commander often defines the general defensive scheme for the CAB. The specific mission may impose constraints such as time, security, and retention of certain areas that are significant factors in determining how the BCT will defend. Additionally, either a portion or all of the BCT's Cavalry squadron may conduct a RPOL through the CAB's defense. If this is this case, additional planning is required for the defense in order to ensure that units fully understand the timing and sequencing of passage. This planning should preferably occur with an LNO from the Cavalry squadron. (See chapter 9 for more on RPOL.)

FORWARD DEFENSE

4-69. The forward defense is the least preferred option due to its inherent lack of depth. The intent of a forward defense is to limit the terrain over which the enemy can gain influence or control. The CAB deploys the majority of its combat forces near the FEBA with the scout platoon establishing a relatively narrow security area (see figure 4-1). The CAB fights to retain these forward positions and can conduct counterattacks against enemy penetrations or destroy enemy penetrations in forward EAs. While the CAB may lack depth, company teams and platoons must build depth into the defense at their levels. The CAB can expect to conduct a forward defense for protection of critical assets or other forces or for political purposes such as defending an ally's threatened border.

4-70. In general, the commander uses a forward defense when a higher commander directs to retain forward terrain for political, military, economic, and other reasons. Alternatively, a commander may choose to conduct a forward defense when the terrain in that part of the AO including natural obstacles. A CAB might defend forward under the following conditions:

- Terrain forward in the AO favors the defense.
- Strong existing obstacles, such as a river, are located forward in the AO.
- The assigned AO lacks depth due to the location of the area or facility to be protected.
- Cover and concealment in the rear portion of the AO is limited.
- Higher headquarters directs the CAB to retain or initially control forward terrain.

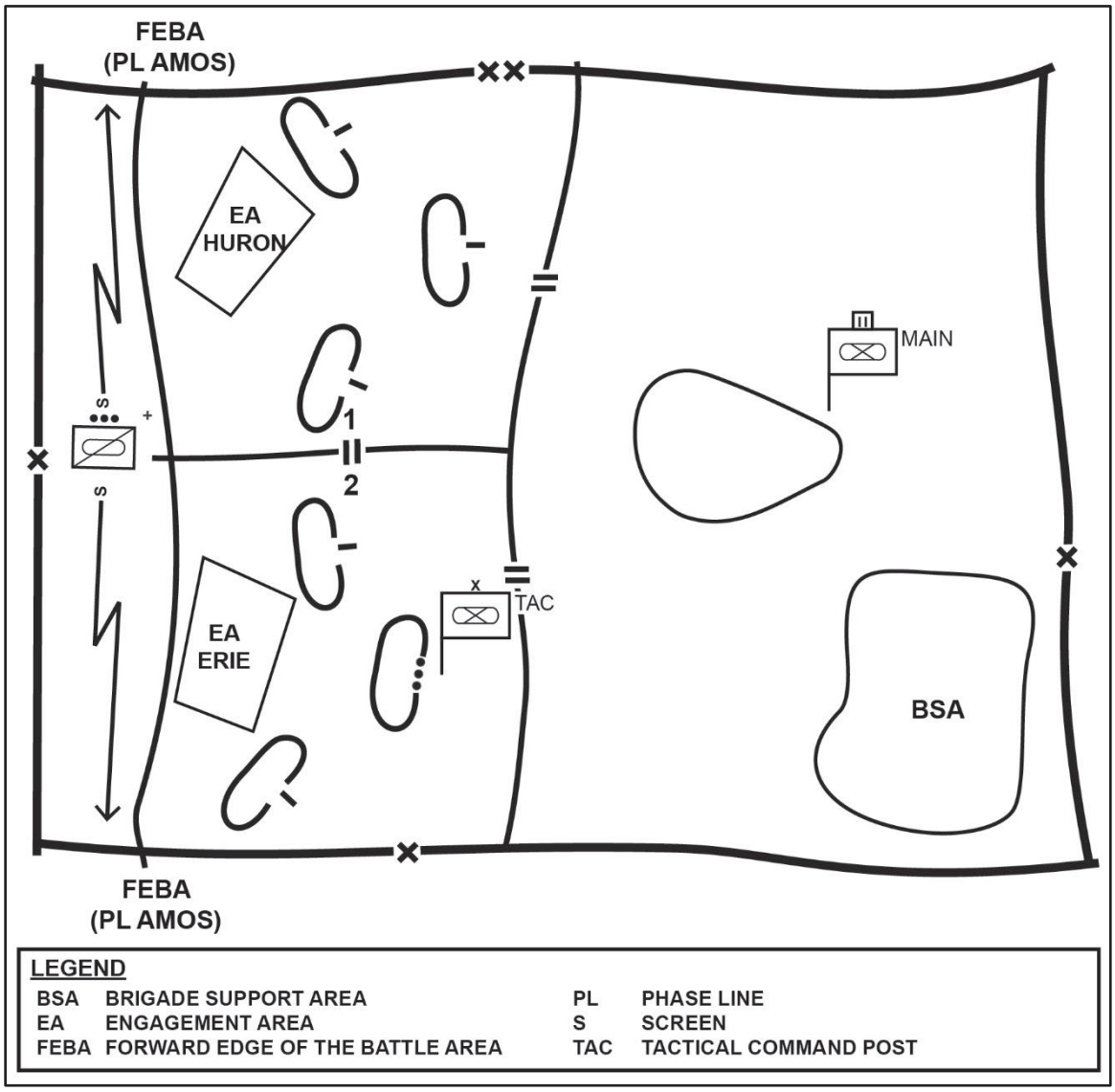


Figure 4-1. Combined arms battalion forward defense, example

DEFENSE IN-DEPTH

4-71. A defense in-depth is the preferred option when tactical conditions allow (see figure 4-2 on page 4-16). It reduces the risk of the attacking enemy that quickly penetrates the defense and affords some initial protection from enemy indirect fires. It also limits the enemy's ability to exploit a penetration through additional defensive positions employed in-depth. The defense in-depth provides more space and time for fire support assets to reduce the enemy's options, weaken their forces, and set the conditions for destruction. It provides the commander with more time to gain information about the enemy's intentions and likely future actions before decisively committing to a plan of their own. It also allows the CAB to execute decisive maneuver by effectively repositioning company teams to conduct counterattacks or to prevent penetrations. However, these repositioning teams increase the risk for fratricide, since they can be to the front or the rear of each other. The commander needs to lessen the fratricide risk by using graphic control measures to control maneuver (for example, boundaries), indirect fires (for example, RFL), and direct fire (for example, EA).

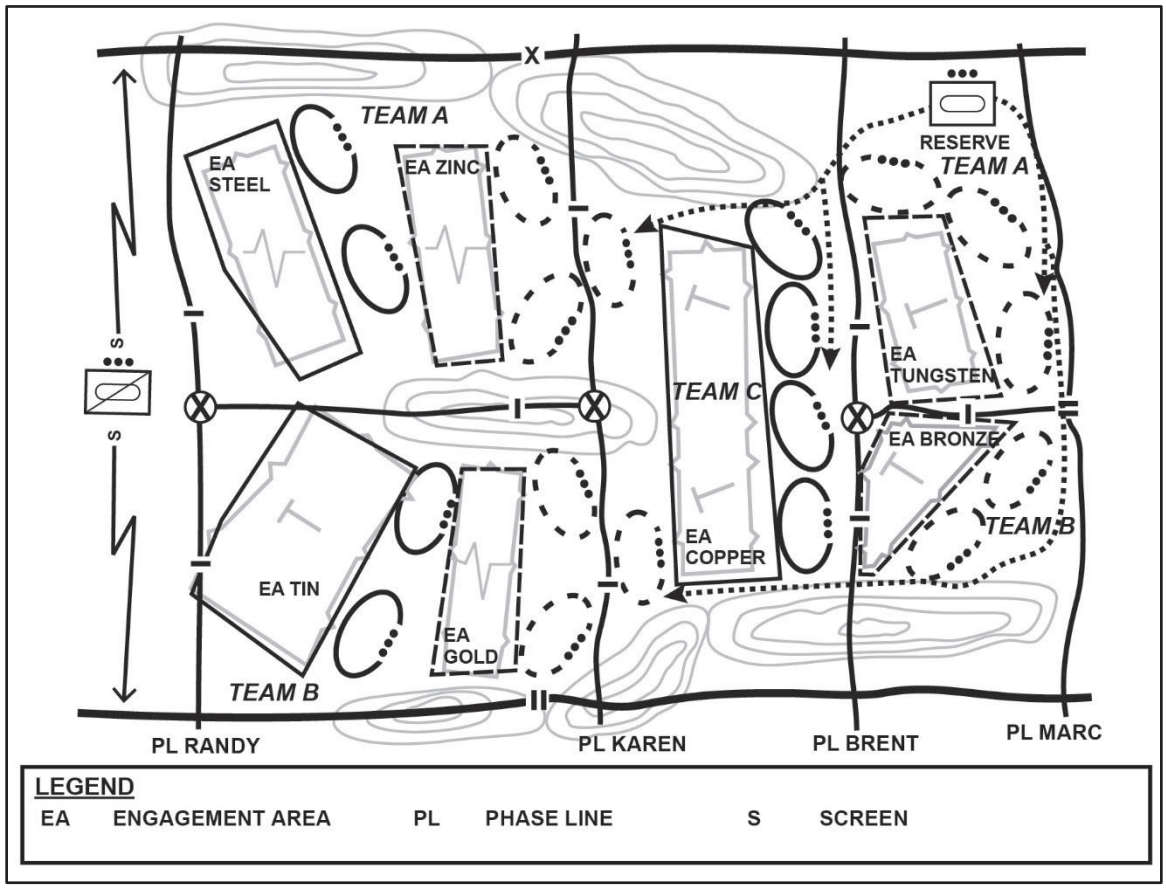


Figure 4-2. Combined arms battalion defense in-depth, example

ORGANIZATION OF FORCES

4-72. Forces organize around a framework of a security area, an MBA, and a support area. For an area defense, the CAB commander typically organizes forces for reconnaissance and security, MBA, reserve, and sustainment missions.

SECURITY

4-73. The commander balances the need to create a strong security force to shape the battle with the resulting diversion of combat power from the main body's decisive operation. The commander can allocate security forces to provide early warning and protect those forces, systems, and locations necessary to conduct the decisive operation from unexpected enemy contact. Company teams assigned a security mission within the CAB's security area are primarily tasked with the following:

- Deceive the enemy as to friendly locations, strengths, and weaknesses.
- Inhibit or destroy enemy reconnaissance forces.
- Provide early warning and disrupt enemy attacks early and continuously.
- Protect the main body of the CAB in order to preserve combat power for the main defense.

4-74. Engagements in the CAB security area are usually limited. Counterreconnaissance forces focus on locating and destroying enemy reconnaissance elements. As the enemy closes into the area, observers initiate indirect fires and execution of situational obstacles. The focal points are usually early warning and identification of the enemy's main and supporting efforts in order for the commander to make decisions and position forces.

MAIN BATTLE AREA

4-75. Commanders position their subordinate forces in mutually supporting positions in-depth to absorb enemy penetrations or canalize them into prepared EAs as directed by the defensive plan. This allows them to defeat the enemy's attack by concentrating the effects of overwhelming combat power. The MBA includes the area where the defending force creates an opportunity to deliver a decisive counterattack to defeat or destroy the enemy.

4-76. The commander builds the decisive operation around identified decisive points, such as key terrain or HPTs. The commander normally positions the main body within the MBA where the commander wants to conduct the decisive operation. The majority of the main body deploys into prepared positions within the MBA.

RESERVE

4-77. The reserve typically locates in an AA or a concealed location until committed to the fight. The CAB commander determines the size and task-organization of the reserve based on METT-TC analysis. Typically, the reserve will have few, if any, other mission tasks during preparation and execution of the defense other than rehearsing to respond to possible contingencies and the movement routes and techniques to move anywhere in the unit's AO once committed. The commander must issue reserves planning priorities to shape the TLP.

4-78. The reserve is not a committed force at the outset of the operation. In certain situations, it may become necessary to commit the reserve to restore the integrity of the defense by blocking an enemy penetration or reinforcing fires into an EA.

SUSTAINMENT

4-79. The sustainment mission in an area defense requires a careful balance between establishing forward supply stocks of petroleum; oils; and lubricants; barrier material; and ammunition in adequate amounts to support defending units and having so many supplies located in forward locations that they cannot be rapidly moved in conformance with enemy advances. Any suitable petroleum, oils, and lubricants, barrier material, construction equipment, and laborers that can be lawfully obtained from the civil infrastructure reduce the defending unit's transportation requirements. Likewise, maintenance assets with their associated repair parts as well as medical assets with ample class VIII must be forward deployed.

PLANNING AREA DEFENSE

4-80. The commander must consider all the factors of METT-TC to determine how to concentrate efforts and economize forces best. Detailed analysis of terrain may be the most important process that the commander and staff complete. A successful defense relies on a complete understanding of terrain. This understanding enables the commander to determine likely enemy COAs and the optimal positioning of the CAB's capabilities to counter them. The commander's keys to a successful area defense include—

- Capability to concentrate effects.
- Depth of the defensive area.
- Security.
- Ability to take full advantage of the terrain.
- Verification of the status of obstacles and routes.
- Flexibility of defensive operations.
- Timely resumption of offensive action.

LEADERS RECONNAISSANCE

4-81. When feasible, the commander and subordinate leaders conduct a reconnaissance of the AO to develop most of the plan based on their view of the actual terrain. The commander and staff develop a plan for the leaders' reconnaissance that includes provisions for security, leaders, and key staff members required to

participate; designation of a recorder; areas to reconnoiter; and time allocated for the reconnaissance. When available, the commander might use aviation assets to conduct the leaders' reconnaissance.

COMMAND AND CONTROL

4-82. Defending an AO is a typical mission for a battalion. As in the offense, commanders and staffs integrate MDMP and TLP activities within the headquarters and across the force as they exercise mission command. The defense allows the commander to distribute forces to suit the terrain and plan EAs that integrate direct fires, indirect fires, and obstacles. 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 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. (See FM 3-90-1 for more information.)

4-83. The commander may change task-organization to respond to the existing or projected situation, such as forming a detachment left in contact (DLIC) prior to conducting a withdraw. When possible, the commander ensures that changes in task-organization occur between units that have previously trained or operated together to take advantage of established interpersonal relationships.

MOVEMENT AND MANEUVER

4-84. In noncontiguous operations, the CAB often must defend either on a broad front or in an AO so large that it would be unrealistic to employ units in mutually supporting positions. This requires a judicious effort by the commander and staff in determining the positioning of maneuver forces. The CAB has the ability to defend in restricted and severely restricted terrain with Infantry while also being able to cover mounted avenues of approach or open areas effectively with tanks and IFVs. During the terrain analysis, the commander and staff must look closely for choke points, intervisibility lines, and reverse-slope opportunities in order to take full advantage of the CAB's capabilities to mass firepower while providing protection for the Infantry.

4-85. Once the commander has assigned an AO to maneuver units, the commander must determine any potential gaps between units. The CAB should plan to cover these gaps with reconnaissance capabilities, aggressive patrolling from the company teams, and local OPs. The CAB must plan local counterattacks to isolate and destroy any enemy that manages to penetrate through a gap in the AO. The commander should also plan to reposition units not in contact to mass the effects of combat power against an attacking enemy.

4-86. The need for flexibility through the mobility of mechanized forces requires graphic control measures to assist in maneuver during local counterattacks and repositioning of forces. Specified routes, phase lines (particularly battle handover lines [BHLs]), attack and SBF positions, battle positions, EAs, TRPs, and other fire control measures are required to synchronize maneuver effectively.

INTELLIGENCE

4-87. The purposes of the information collection efforts are to provide the commander with information to support decision-making, to provide early warning and reaction time, and to support targeting. Guided by the CCIRs, the information collection plan and the fire support plan, reconnaissance and security capabilities provide information that includes—

- Location and movement of reconnaissance assets.
- Speed, direction, composition, and strength of enemy formations.
- Locations of HPTs, such as artillery and rocket units, bridging assets, and C2 nodes.
- Enemy actions at DPs.
- Enemy flanking actions, breaching operations, force concentrations, and employment of enablers.
- Verification of the condition of obstacles and routes.
- BDA.
- Movement of follow-on forces.

4-88. The staff must integrate the information provided by the security forces with information received from higher and adjacent units, other subordinates, and sources such as UAS. The total reconnaissance effort must

support the commander's decision-making. In an area defense, the commander's critical decisions usually include—

- Initiation and employment of fires against enemy formations.
- Modifications or adjustments to the defensive plan.
- Execution of situational obstacles.
- Withdrawal of forward security forces.
- Commitment of the reserve, counterattack, or both.

FIRES

4-89. The CAB might have to rely on its own mortars until supporting artillery is available. 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 following are considerations for the fire support plan:

- Allocate initial priority of fires to the forward security force.
- Plan targets along enemy reconnaissance mounted and dismounted avenues of approach.
- Engage approaching enemy formations at vulnerable points along their route of march with indirect fires and CAS, if available.
- Plan the transition of fires to the MBA fight.
- Develop clear triggers to adjust FSCM and priority of fires.
- Ensure integration of fires in support of obstacle effects.
- Ensure integration of fires with CAB counterattack plans and repositioning contingency plans.
- Integrate the emplacement of FASCAM into the countermobility and counterattack plans (to protect flanks and so forth).

SUSTAINMENT

4-90. The CAB S-4 must ensure that the sustainment plan is fully coordinated with the FSC commander and the rest of the staff. The S-4 coordinates with the S-3 to ensure that supply routes do not interfere with maneuver or obstacle plans but still support the full depth (to include the scout platoon) of the defense. The FSC commander ensures that sustainment operators deliver combat-configured loads to maneuver units on a scheduled basis. Coordination with the S-3 provides engineer and potential military police support to keep supply routes open. The S-4 coordinates with the CBRN officer to ensure there are designated routes for contaminated vehicles and equipment. In addition, the S-4 coordinates with the FSC commander for the possible use of prestocked classes of supply (classes IV and V).

4-91. The FSC commander positions sustainment forces where they can best fulfill their support tasks while using minimal resources to maintain security in conjunction with other units located in the support area. In contiguous operations, position sustainment operations far enough away from the FEBA to avoid interfering with the movement of units. In noncontiguous operations, sustainment may conduct operations from within the perimeters of ground maneuver units to provide security and avoid interrupting their sustainment functions. (See FM 3-90-1 for more on sustainment considerations in the defense.)

4-92. Enemy actions and the maneuver of combat forces complicate forward area medical operations. HSS considerations for defensive operations include—

- Medical personnel have much less time to reach the patient, conduct vital TCCC procedures, and evacuate the patient from the battle site.
- The enemy's initial attack and the CAB's counterattack produce the heaviest patient workload. These are also the most likely times for enemy use of artillery and CBRN weapons.
- The enemy attack can disrupt ground and air routes and delay evacuation of patients to and from treatment elements.
- The depth and dispersion of the defense create significant time-distance problems for evacuation assets.

4-93. The enemy exercises the initiative early in the operation, which could preclude accurate prediction of initial areas of casualty density. This fact makes effective integration of air assets into the MEDEVAC plan essential.

4-94. During the MBA fight, protection of sustainment sites is necessary to ensure freedom of maneuver and continuity of operations. Because allocating forces against threats to CAB sustainment sites diverts combat power from the MBA, the commander carefully weighs the need for such diversions against the possible consequences to the overall operation. To make such decisions wisely, the commander requires accurate information to avoid late or inadequate responses and to guard against overreacting to exaggerated reports.

4-95. In general, the combat trains rely on positioning, movement, and self-protection for survival. The S-4 plans for sustainment operations in covered and concealed areas away from likely enemy avenues of approach. The commanders responsible for the trains (for example, HHC or FSC commanders) establish and maintain perimeter security, using early warning OPs and integrating any weapons and crews that are present into the train's defense. They also keep sustainment nodes postured to move on very short notice as the security situation changes.

4-96. Early warning to sustainment units is critical to their survival in the event of a penetration of the MBA or enemy attack from an unexpected area. Sustainment plans and rehearsals must address actions to be taken in the event of an attack, including defensive measures, displacement criteria, routes, rally points, and subsequent positions to which to move.

PROTECTION

4-97. Air defense support to the CAB may be limited. Units should expect to use their organic weapons systems for self-defense against enemy air threats. Plan for CBRN reconnaissance at NAIs where the enemy is more likely to conduct a CBRN attack. Use obscurants to support disengagement or movement of forces. Assign sectors of fire to prevent fratricide. Engineer augmentation provides survivability support to the CAB by digging survivability positions and countermobility tasks. (See ATP 5-0.2-2 for more detailed information.)

4-98. 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 while creating standoff distances from enemy direct- and indirect-fire systems. Area security operations can be used to protect the rapid movement of combat trains or to protect cached commodities until needed. Commanders must be prepared to capture detainees in the defense. The treatment and proper handling of detainees can directly affect mission success and could have a lasting impact on U.S. strategic military objectives. All Soldiers must follow the fundamental principles of detainee operations.

4-99. Effective and disciplined OPSEC protects essential elements of friendly information, preventing enemy reconnaissance and other information collection capabilities from gaining an advantage through identifiable or observable pieces of friendly information or activities. This is key to preventing surprise during defensive operations. OPSEC and cyberspace and EW activities deny the enemy access to information systems and prevent network intrusion, degradation, or destruction through computer network defensive tactics, techniques, and procedures. EP capabilities prevent an attacking enemy from using the EMS to degrade, neutralize, or destroy friendly combat capabilities.

PREPARATION

4-100. Preparation of the defense includes plan refinement, positioning of forces, constructing obstacles and fighting positions, preparing other survivability requirements, planning and synchronizing fires, positioning logistics, and conducting inspections and rehearsals. Throughout the preparation phase, security operations must continue without interruption. Security forces may be assigned any combination of screen, guard, and area security missions. The scout platoon may be positioned to screen and provide early warning along most likely enemy avenues of approach, reinforced in-depth with sections or platoons from the company teams.

MOVEMENT INTO AN UNSECURED AREA OF OPERATIONS

4-101. The CAB should establish a security force when moving into an unsecured area. The mission of the security force is to clear the area, check for contaminated areas and obstacles, and establish security for the CAB main body. After clearing the CAB's logistics sites and the area where the company teams will be positioned, the security force should position itself to—

- Prevent enemy observation of defensive positions.
- Defeat infiltrating reconnaissance forces.
- Prevent the enemy from delivering direct fires into the CAB defenses.
- Provide early warning of the enemy's approach.

HOW AND WHERE TO DEFEAT THE ENEMY

4-102. The commander and staff analyze the forces and assets available, paying particular attention to the obstacle assets and fire support allocated by the BCT. The staff must define the engineer and fire support allocation in terms of capability. For example, it should define engineer capability in terms of the number of obstacles of a specific effect and the number and type of fighting positions engineers can emplace or create in the time available. Fire support analysis should include the number of targets to be engaged, at what point in the battle it should be engaged, and with what expected result.

ENGAGEMENT AREA DEVELOPMENT

4-103. Although the commander can divide EAs into sectors of fire, the commander does not position the defensive systems toward the EAs but toward the avenues of approach. The commander uses EAs and sectors of fire as tools to optimize the effects of fires, not to restrict fires or cause operations to become static or fixed. The commander must ensure that the individual company team EAs are synchronized into a unified effort across the CAB's EAs.

POSITIONING THE RESERVE

4-104. The commander must designate and position the reserve in a location where it can effectively react to several contingency plans. The commander must consider terrain, trafficability of roads, potential EAs, probable points of enemy penetrations, and commitment time. The commander can have a single reserve under CAB control, or, if the terrain dictates, the company teams can designate their own reserves. The reserve should be positioned in a covered and concealed position. Information concerning the reserve may be considered an EEFI and protected from enemy reconnaissance. The CAB commander must give specific planning guidance to the reserve to include priority for planning. METT-TC might require that a CAB commander designate a reserve that can be called upon to accomplish tasks that include focusing on the MBA and responding to other missions needed to help the CAB to accomplish its mission. To generate larger ground maneuver reserves, the CAB commander must redirect company or platoon committed elements after they have accomplished their initial tasks or when the enemy's defeat frees them for other tasks.

4-105. Speed and agility at the platoon level enable the CAB commander to commit, withdraw, redirect, and recommit the reserve during the fight. This use of the reserve requires the best possible situational understanding and a COP that is constantly updated with accurate enemy intelligence. Moving a unit from one area (left to right or front to rear) requires each Soldier in the unit to know where it is and also where the enemy and friendly forces are located.

4-106. Additionally, the movement of ground forces over the distances expected in an expanded AO requires time. The time and distance relationship, especially under limited visibility conditions and rough terrain, is a key factor in determining which of the CAB units can realistically be considered for a reserve mission that will require a great deal of flexibility in accomplishing multiple missions.

4-107. During preparation of the CAB defense, the CAB reserve sometimes conducts other tasks. The CAB commander might initially position the reserve in a forward location to deceive the enemy, obscure subordinate boundaries, or show strength in an area where to accept risk. The reserve could serve in the CAB's forward security area and provide area security for the logistics sites or unoccupied areas of the CAB's

AO. However, the CAB commander must consider the impact of these types of missions on the reserve force's ability to prepare for its critical role as the reserve during the MBA engagement.

4-108. The CAB reserve's commander should also expect to receive specific DPs and triggers for employment on each contingency. This allows the reserve commander to conduct quality rehearsals and to anticipate the commitment as it monitors the fight.

ENGINEER SUPPORT

4-109. Transitioning the priority of effort from mobility to countermobility and survivability requires detailed planning at the CAB level to ensure subordinate engineers have adequate time for TLP. The CAB engineer and the leadership of the supporting engineer unit(s) are key in the development and execution of engineer tasks. The following planning considerations apply to engineer support:

- Position situational obstacles early and link them to natural and other man-made obstacles.
- Plan multiple obstacle locations to support depth and flexibility in the defense. Ensure adequate security for obstacle emplacement systems. Integrate triggers for the execution of situational and reserve obstacles in the DST.
- Time and resources required to construct directed obstacles and survivability positions.
- Focus the countermobility effort to encourage the enemy to maneuver into positions of vulnerability where the CAB intends to kill them.
- Ensure adequate mobility support for withdrawing security forces, the reserve, the counterattack force, and the repositioning of MBA forces.
- Ensure the integration of survivability priorities for critical systems and units through the development and implementation of an execution matrix and timeline.

AVIATION SUPPORT

4-110. In defensive operations, the speed and mobility of aviation can help maximize concentration and flexibility. During preparation for defensive operations, aviation units sometimes support the CAB commander with aerial reconnaissance and fires.

4-111. During the defense, aviation forces can attack deep against HPTs, enemy concentrations, and moving columns, and they can disrupt enemy capabilities. Division will likely employ attack reconnaissance helicopter units to attack follow-on echelons before they can move forward to the close battle. Aviation forces might conduct screening operations and might conduct guard operations of an open flank in conjunction with ground forces.

4-112. Attack reconnaissance helicopters routinely support security area operations and mass fires during the MBA fight. Synchronization of aviation assets into the defensive plan is important to ensure aviation assets are capable of massing fires and to prevent fratricide. Detailed air-ground operation and coordination are necessary to ensure efficient use of aviation assets. If the CAB is augmented with aviation assets, it must give careful consideration to EA development and involve the direct fire planning and the supporting aviation unit, through its aviation LNO, in the planning process.

REHEARSALS

4-113. The CAB and subordinate units should conduct rehearsals to practice their defense against multiple enemy COAs. When conducting rehearsals, all units must consider time, preparation activities, and OPSEC. Rarely will the CAB be able to conduct a full-dress rehearsal given the tempo of operations and the potentially large size of the AO. It may be better for key leaders to conduct digital, map, sketch map, terrain model, or reduced force rehearsal in order to focus their attention on inspecting preparations and working with subordinate leaders. The rehearsal should cover the following:

- Reconnaissance and security operations.
- Battle handover and passage of lines.
- MBA engagement.

- The timelines and associated actions to create, handover, and activate all planned types of obstacles and obstacle groups.
- Reserve employment options.
- Counterattack.
- Actions to deal with enemy penetrations, major enemy efforts along areas of risk or flank avenues of approach.
- Sustainment operations, particularly CASEVAC contingency resupply operations and actions taken in case of attack.
- Reorganization and follow-on missions to exploit defensive success.
- Integration of aviation assets, if available.

MONITORING DEFENSE PREPARATIONS

4-114. As subordinate units position their elements and execute defensive preparations, the CAB staff monitors and coordinates their activities and the overall situation. The S-2 monitors the enemy situation and focuses on indicators that reveal the enemy's likely time and direction of attack. The staff continually analyzes this assessment to determine the effects on preparation time available. The commander must update the PIR as the situation changes and be prepared to adjust the reconnaissance effort to answer those questions. The S-3 monitors the status of rehearsals and updates the plan as needed based on continuously updated intelligence and the status of preparations. The XO analyzes the status of logistics and equipment maintenance within the CAB to determine any required adjustments to the plan or task-organization. The CAB engineer monitors the progress of all engineer efforts within the AO. The CAB engineer continually projects the end state of this effort based on the current and projected work rates. The CAB engineer must identify potential shortfalls early and determine how to shift assets to make up for the shortfalls or recommend where to accept risk.

4-115. As the enemy closes on the CAB's AO, the CAB begins final preparations that typically include—

- Final coordination for battle handover and passage of lines.
- Positioning of situational obstacle employment systems.
- Verification of communications status.
- Evacuation of unused classes IV and V (obstacle materiel and ammunition) to prevent capture or loss to enemy action.
- Withdrawal of engineer forces from forward areas.
- Linkup of mobility, protection, and sustainment assets with reserve or other supported combat forces (if not previously accomplished).
- Review of reconnaissance plan to ensure it still meets the commander's PIR.
- Final positioning or repositioning of reconnaissance assets, security forces, and observers.
- Positioning of teams to close lanes in obstacles or execute reserve obstacles.
- Execution of directed, reserve, or situational obstacles.
- Registration of indirect fire targets with mortars.
- Periodic situation updates and issuing of final guidance to subordinates.

EXECUTION

4-116. Usually, the BCT has established some form of security before the CAB moves into the area. However, the CAB still must provide for its own security, especially on expanded or complex terrain. If transitioning from an offensive operation, the BCT and CABs establish the security area well beyond the desired MBA site in order to prevent the enemy from observing and interrupting defensive preparations and identifying unit positions. If they cannot push the security area forward to achieve this, the BCT and its CABs might have to hold their positions initially as they transition and then withdraw units to the defensive MBA, establishing a security force in the process.

SECURITY AREA ACTIONS

4-117. Once security area forces have moved into position, actions in the security area predominantly focus on reconnaissance, counterreconnaissance, target acquisition, reporting, delay of the enemy main body, and battle handover. The CAB's security area forces must integrate their actions with friendly forces forward of them, maintaining information flow and security. The CAB's elements may have to execute battle handover with those forward elements and assist them in executing a rearward passage. This is especially likely if the forward elements are capabilities other than the BCT Cavalry squadron, which must move through the CAB AO to recover and prepare for another mission. Similarly, the security area forces must coordinate and crosstalk with the teams to their rear. Eventually, they must execute a rearward passage or move to the flanks of the MBA. On approaches that the enemy does not use, it is usually advantageous to leave elements of the security force forward to preserve observation and access to enemy flanks.

Reconnaissance

4-118. The purposes of the reconnaissance effort in the security area are to provide the commander with information to support decision-making, to provide early warning and reaction time, and to support target acquisition. The staff must integrate the information provided by the reconnaissance efforts with information received from higher and adjacent units, other subordinates, and sources such as the UASs. Guided by the commander's CCIR, the information collection plan, and the fires plan, reconnaissance capabilities provide information that includes—

- Location, movement, and destruction of reconnaissance capabilities.
- Speed, direction, composition, and strength of enemy formations.
- Locations of HPTs such as artillery and rocket units, bridging assets, and C2 nodes.
- Enemy actions at DPs.
- Enemy flanking actions, breaching operations, force concentrations, and employment of combat multipliers.
- Verification of the condition of obstacles and routes.
- BDA.
- Movement of follow-on forces.

4-119. The total reconnaissance effort must support the commander's decision-making. In an area defense, the commander's critical decisions usually include—

- Initiation and employment of fires against enemy formations.
- Modifications or adjustments to the defensive plan.
- Execution of situational obstacles.
- Withdrawal of forward security forces.
- Commitment of the reserve, counterattack, or both.

Security Area Engagement

4-120. Engagements in the CAB security area are usually limited. Counterreconnaissance forces focus on locating and destroying enemy reconnaissance elements. The focal points are usually early warning and identification of the enemy's main and supporting efforts in order for the commander to make decisions and position forces.

EXECUTION OF PLANNED INDIRECT FIRES

4-121. The CAB's planned indirect fires usually consist of security force elements' or a FIST's execution of one or two indirect fire targets on a primary enemy avenue of approach. This may be in support of the higher headquarters' scheme of fires since the BCT usually controls artillery assets throughout most of the engagement.

4-122. During the MBA engagement, the BCT and CABs shift combat power and priority of fires to defeat the enemy's attack. This may require—

- Adjusting subordinates' AO and missions.

- Repositioning of forces.
- Shifting of the main effort.
- Committing the reserve.
- Modifying the original plan.

4-123. Forward forces, obstacles, and fires within the MBA usually break the enemy's momentum, reduce the numerical advantage, and force troops into positions of vulnerability. The CAB masses fires (direct and indirect) to destroy attacking enemy forces as they enter the EAs. Depending on the defensive scheme, the CAB may conduct delay operations, capitalizing on movement and repeated attacks to defeat the enemy or it may fight primarily from a single series of positions.

Execution of Situational Obstacles

4-124. The purpose of these obstacles is to force the enemy's deployment premature, thus slowing the advance. This allows for more effective engagement with indirect fires and, therefore, forces early deployment of enemy breaching assets. These obstacles usually are planned and triggered relative to specific enemy attack options. Situational obstacles may support an essential task for fires support. In this situation, a CAB company team may be employed forward to cover fire support elements with direct fires, and then withdraw to its own defensive positions within the MBA.

Battle Handover

4-125. Battle handover is the transfer of responsibility for the battle from the BCT's security area elements to the CABs. The higher commander who established the security force prescribes criteria for the handover and designates the location where it will pass through, routes, contact points, and the BHL. The BHL is usually forward of the FEBA where the direct fires of the forward combat elements of the CABs can effectively overwatch the elements of the passing unit.

4-126. The CAB commander establishes the criteria for the battle handover prior to the MBA, including where it will pass through, and designates routes and contact points. The CAB ensures its coordination with the reconnaissance unit and with the CAB's company or team commanders who will be directly involved in the passing of the reconnaissance elements. The best way to establish this coordination is as a TACSOP. Coordination usually includes—

- Establishing communications.
- Providing updates on friendly and enemy situations.
- Coordinating passage.
- Collocating C2.
- Dispatching representatives to contact points and establishing liaison.
- Establishing recognition signals.
- Checking status of obstacles and routes.
- Establishing fires, AMD, and sustainment requirements.
- Defining exact locations of contact points, lanes, and other control measures.
- Synchronizing actions to assist the reconnaissance element's RPOL in or out of contact.

Main Battle Area

4-127. The CAB seeks to defeat the enemy's attack forward of or within the MBA. If the CAB can bring sufficient firepower to shape the enemy in the security area fight, an MBA engagement might not occur. If so, then the BCT can rapidly transition and move its CABs into a strong counterattack. However, the BCT and the CABs usually defend over a large area, and enemy strength often forces an MBA engagement. The CAB commander integrates an MBA engagement that is a combined arms fight using direct and indirect fires and reinforced with obstacles. The BCT continues to focus artillery, CAS, and attack aviation in an effort to attack the enemy continuously throughout the depth of the battlefield. In this case, long-range fire support to the CABs might be limited to critical points and times in the MBA fight. Combining all available fires with maneuver, obstacles, and reserve elements, the CAB commander seeks to destroy the enemy or force their

transition to a retrograde or hasty defense. The BCT usually specifies control measures to coordinate and focus the defensive operation.

MANEUVER

4-128. During the MBA engagement, the CAB shifts combat power and priority of fires to defeat the enemy's attack. This may require—

- Adjustment of subordinates' AO and missions.
- Repositioning of forces.
- Shifting of the main effort.
- Commitment of the reserve.
- Modification of the original plan.

4-129. Forward forces, obstacles, and fires within the MBA normally break the enemy's momentum, reduce the numerical advantage, and force troops into positions of vulnerability. The CAB masses fires (direct and indirect) to destroy attacking enemy forces as they enter the EAs. Depending on the defensive scheme, the CAB may conduct delay operations, capitalizing on movement and repeated attacks to defeat the enemy, or it may fight primarily from a single series of positions.

4-130. The CAB must maintain a cohesive defense if it is to remain viable. This does not mean, however, that the CAB must mass forces close together. Company teams can maintain cohesion with forces dispersed by maintaining tactical crosstalk among subordinates and continually tracking and digitally reporting of the enemy. The staff and commanders must continually assess the enemy's options and movement while determining means to defeat them. With forces widely dispersed, continual assessment of time, distance, and trafficability factors is essential. To maintain defensive cohesion, company team commanders must keep their movement, positioning, and fires consistent with the CAB commander's defensive scheme.

PENETRATIONS

4-131. Unless the BCT plan makes other provisions, each CAB commander is responsible for controlling enemy advances within the AO. If the enemy penetrates the defense or a penetration appears likely, the CAB commander repositions forces or commits the reserve to block the penetration or to reinforce the area where a penetration appears imminent. Simultaneously, the CAB commander allocates indirect fires to support the threatened area. Additionally, the commander must alert the BCT commander to the threat and advise the BCT commander that the reserve force has been committed (if applicable).

4-132. If a penetration threatens the CAB, the BCT commander may take several actions to counter the situation. In order of priority, the BCT commander can do any or all of the following:

- Allocate priority of all available indirect fires, including CAS, to the threatened unit. This is the most rapid and responsive means of increasing the combat power of the threatened unit.
- Direct or reposition adjacent units to engage enemy forces that are attacking the threatened unit. This might not be possible if adjacent units are already decisively engaged.
- Commit the BCT reserve to reinforce the threatened unit.
- Commit the BCT reserve to block, contain, or destroy the penetrating enemy force.
- Accept penetration of insignificant enemy forces and maintain contact with them as they move deeper into the MBA.

4-133. When a penetration occurs, units within the MBA continue to fight, reinforce their flanks, and engage the enemy's flanks and rear. The penetrated force must attempt to contain the penetration to prevent the area of penetration from widening and to protect adjacent unit flanks. Adjacent units must take immediate action to secure their exposed flanks, which can include security missions or the establishment of blocking positions. Adjacent units also might need to reposition forces, readjust subordinate AO and tasks, or commit their reserve. MBA forces attempt to reestablish contact across the area of penetration when possible.

FOLLOW THROUGH/COUNTERATTACK

4-134. Following a successful area defense, there might be a period of confusion that the defender can exploit. Given the information capabilities of the CAB, counterattacks can be executed quickly before the enemy can secure their gains or organize a defense. METT-TC, information collection results, and the higher commander's concept of operations dictate the CAB's follow-on mission.

4-135. If the situation prevents offensive action, the CAB continues to defend. As in the initial establishment of the defense, expanding the security area is critical. A local counterattack can provide secured area and time to reorganize. Any attack option must pay particular attention not only to the terrain and enemy but also to friendly obstacles (and their destruction times, if applicable) and areas where dual-purpose improved conventional munitions or bomblets have been used. If the CAB cannot counterattack to gain adequate security area, then the CAB may have to direct a company team to maintain contact with the enemy and guard the AO while others move to reestablish the defense farther to the rear. Whether continuing to defend or transitioning to offensive operations, the CAB must quickly reorganize.

SECTION V – MOBILE DEFENSE

4-136. *Mobile defense* is a type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force (ADP 3-90). Mobile defense focuses on destroying the attacking force by allowing the enemy to advance into a position that exposes the enemy to counterattack and envelopment. The commander uses the fixing force to hold attacking enemy forces in position, help channel attacking enemy forces into ambush areas, and retain areas from which to launch the striking force. A mobile defense requires an AO of considerable depth.

4-137. The commander must be able to shape the battlefield, causing an enemy force to overextend its 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, the CAB generally conducts an area defense or a delay as part of the fixing force as the commander shapes the enemy's penetration or they attack as part of the striking force.

4-138. The CAB, as part of a larger organization, participates in a mobile defense as either part of the fixing force or part of the striking force, but not both. As part of the fixing force, the CAB defends within its assigned AO, although the AO might be larger than usual. As part of the striking force, the CAB plans, rehearses, and executes offensive operations.

Note. Units smaller than a division do not usually conduct a mobile defense because of their inability to fight multiple engagements throughout the width, depth, and height of their AO, while simultaneously resourcing the striking, fixing, and reserve forces. A mobile defense requires considerable depth in the AO in order for the commander to shape the battlefield, causing the enemy to extend their LOCs and support, expose their flanks, and dissipate their combat power. The terrain must allow the commander to maneuver to attack an enemy flank or rear.

FIXING FORCE

4-139. A *fixing force* is a force designated to supplement the striking force by preventing the enemy from moving from a specific area for a specific time (ADP 3-0). Organized by the commander with the minimum combat power needed to accomplish its mission, the fixing force turns, blocks, and delays the attacking enemy force. It tries to shape the enemy penetration or contain their advance. Typically, it is Infantry-heavy, since the IFVs can provide precision long-range fires, while dismounted Infantry support the countermobility assets of the defending unit.

4-140. The fixing force may conduct defensive actions over considerable depth within the MBA. However, it must be prepared to stop and hold terrain on short notice to assist the striking force once it is committed. The operations of the fixing force establish the conditions for a decisive attack by the striking force at a favorable tactical location. The fixing force executes its portion of the battle essentially as a combination of

an area defense and a delaying action. The actions of the fixing force are shaping operations. In the mobile defense, reconnaissance and security, reserve, and sustaining forces accomplish the same tasks as in an area defense.

STRIKING FORCE

4-141. The *striking force* is a dedicated counterattack force in a mobile defense constituted with the bulk of available combat power (ADP 3-0). The striking force decisively engages the enemy as they become exposed in their attempts to overcome the fixing force. Because the striking force normally attacks a moving enemy force, it is usually armor heavy. The battalion may be part of the strike force as part of a division or larger echelon's mobile defense. The striking force is a committed force and has the resources to conduct a decisive counterattack as part of the mobile defense. It is the commander's decisive operation.

DEPTH

4-142. A mobile defense requires considerable depth in the AO in order for the commander to shape the battlefield, causing the enemy to extend their LOCs and support, expose their flanks, and dissipate their combat power. The terrain must allow the commander to maneuver to attack an enemy flank or rear. A division or corps most frequently conducts a mobile defense, but the brigade is also capable of doing so.

4-143. Risks to the mobile defense include—

- Becoming isolated and defeated in detail.
- Enemy operations may impair the ability of the striking force to react at critical points.
- Enemy may be able to confuse friendly forces as to its main attack.
- Increased criticality of mobility support requirements.
- Increased potential for fratricide.

SECTION VI – RETROGRADE

4-144. The *retrograde* is a type of defensive operation that involves organized movement away from the enemy (ADP 3-90). The enemy may force these operations or a commander may execute them voluntarily. The CAB conducts retrograde operations to improve a tactical situation or to prevent a worse situation from developing. CABs usually conduct retrogrades as part of a larger force but may conduct independent retrogrades as required, such as when conducting an area or point raid. In either case, the CAB's higher headquarters must approve the operation.

4-145. Retrograde operations accomplish the following:

- Resist, exhaust, and defeat enemy forces.
- Draw the enemy into an unfavorable situation.
- Avoid contact in undesirable conditions.
- Preserve friendly combat power.
- Gain time.
- Disengage a force from battle for use elsewhere in other missions.
- Reposition forces, shorten LOCs, or conform to movements of other friendly units.

4-146. The three forms of retrograde operations are—

- Delay. This operation trades space for time and preserves friendly combat power while inflicting maximum damage on the enemy.
- Withdrawal. A withdrawal is a planned, voluntary disengagement from the enemy, which may be conducted with or without enemy pressure.
- Retirement. A retirement is an operation in which a force that is not in contact with the enemy moves to the rear in an organized manner.

Note. Maintaining morale is essential among subordinate leaders and troops in a retrograde operation. Movement to the rear may seem like a defeat or a threat of isolation unless Soldiers have confidence in their leaders and know the purpose of the operation and their roles in it.

DELAY

4-147. A *delay* is when a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on the enemy forces without becoming decisively engaged (ADP 3-90). It is critical that the commander's intent defines what is more important in the mission: time, damage to the enemy, or force protection. Inflicting damage is usually more important than gaining time. The BCT commander establishes risk levels for each delay, but maintaining freedom of action and avoiding decisive engagement are ordinarily of ultimate importance. The CAB may execute a delay when it has insufficient combat power to attack or defend or when the higher unit's plan calls for drawing the enemy into an area for a counterattack, as in a mobile defense.

4-148. Delays gain time to—

- Allow other friendly forces to establish a defense.
- Cover a withdrawing force.
- Protect a friendly force's flank.
- Allow other forces to counterattack.

FORMS OF DELAY

4-149. There are two alternatives of delay missions: delay in an AO and delay forward of a specific control measure for a specific period of time. These two alternatives can be executed based upon the commander's intent and METT-TC.

Delay in an Area of Operations

4-150. Higher command might assign the CAB to delay in an AO. The higher commander usually provides guidance regarding intent and desired effect on the enemy but minimizes restrictions regarding terrain, time, and coordination with adjacent forces. This form of a delay is usually assigned when force preservation is the highest priority, and there is considerable depth to the BCT or division's AO.

Delay Forward of a Specific Control Measure for a Specific Period of Time

4-151. Higher command assigns the CAB a mission to delay forward of a specific control measure for a specific period of time. This mission is assigned when the CAB must control the enemy's attack and retain specified terrain to achieve some purpose relative to another element, such as setting the conditions for a counterattack, for completion of defensive preparations, or for the movement of other forces or civilians. The focus of this delay mission is clearly on time, terrain, and enemy destruction. It carries a much higher risk level for the CAB, with the likelihood that all or part of the unit will become decisively engaged. The CAB commander controls the movement of the forces by using a series of delay lines. Delay lines are phase lines that indicate the date and time before which the enemy is not allowed to cross.

Planning a Delay

4-152. The delay requires close coordination of forces and a clear understanding by subordinates of the concept of operations and commander's intent. The potential for loss of control is very high in delay operations, making crosstalk and coordination between subordinate leaders extremely important. Subordinate initiative is critical, but it must be in the context of close coordination with others. Plans must be flexible, with control measures throughout the AO allowing forces to be maneuvered to address all possible enemy COAs.

4-153. The commander determines the end state of the delay based on the higher commander's intent and specific parameters of the higher headquarters' delay order. The commander considers the factors of METT-TC, especially the effects of the terrain, to identify advantageous locations from which to engage the enemy throughout the depth of the AO. Specific delay planning considerations the commander and staff must determine include—

- Force array and allocation of enablers, particularly fires and obstacles.
- Where and when to accept decisive engagement.
- Acceptable level of risk for each subordinate force.
- Form of delay and control measures (company teams delay in AO, control by battle positions, or some other method).
- Maintain adequate mobility to facilitate the delay.
- Integration of obstacle intent and essential tasks for fire support.
- Likely subsequent mission, transition point(s), and conditions.

Delay Organization

4-154. The CAB's organization of its forces depends on how the BCT has structured its forces (unless the CAB operates independently). The BCT usually organizes into a security force, main body, and reserve, but a wide AO may preclude the use of BCT-controlled security forces and reserves. In this case, the BCT can direct the CAB to organize its own security, main body, and reserve forces, the same as if the CAB were operating independently. The brigade commander can designate a CAB, or companies within the CAB, as the security or reserve force for the BCT. If the CAB has to establish a security force, it usually uses the scout platoon as a screen force positioned to observe the most likely enemy avenues of approach and to initiate indirect fires to slow and weaken the enemy. Initially, the CAB main body usually locates well forward in the AO, and then fights from a series of subsequent positions. The reserve force is used to defeat enemy penetrations or to assist units with breaking contact.

Delay Scheme of Maneuver

4-155. The scheme of maneuver must allow the CAB to determine the pace of the delay and maintain the initiative. The commander selects positions that allow forces to inflict maximum damage on the enemy, support their disengagement, and enable their withdrawal. (See figure 4-3.) The commander may choose to delay from successive or alternating delay positions depending on the strength of the teams and the width of the AO.

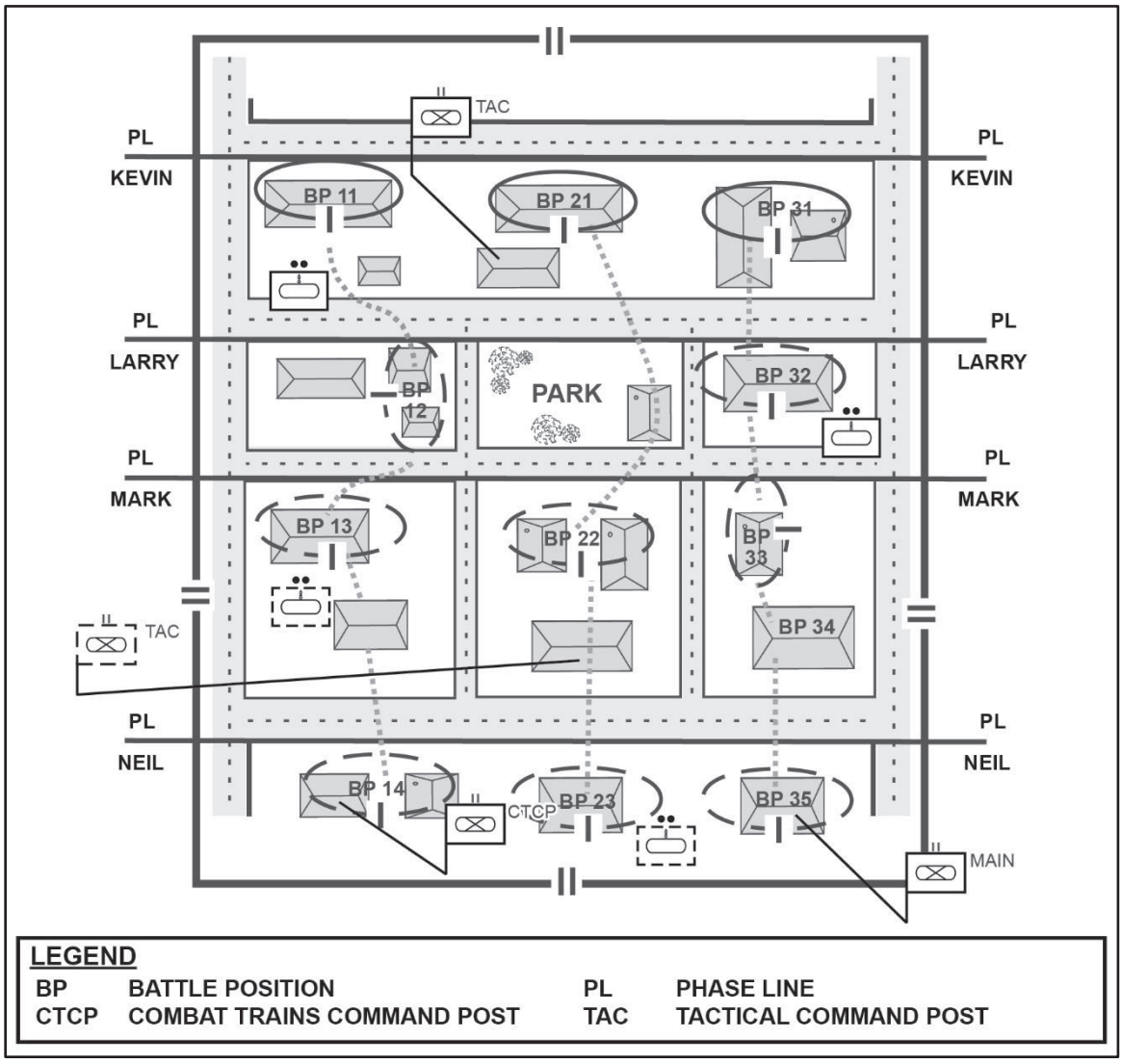


Figure 4-3. Combined arms battalion executing a delay

Alternate and Subsequent Positions in a Delay

4-156. In planning, if the commander chooses one of two techniques for a delay using battle positions, the unit can use either alternate positions or subsequent positions. In both techniques, the delaying forces maintain contact with the enemy between delay positions. Table 4-2 on page 4-32 shows the advantages and disadvantages of the two techniques. (See FM 3-90-1 for more information.)

Table 4-2. Advantages and disadvantages of delay

Method of Delay	*Use When*	*Advantages*	*Disadvantages*
Delay from subsequent positions.	Area of operations (AO) is wide. Forces available are not adequate to be positioned in-depth.	Reduced fratricide risk. Ease of mission command. Repeated rearward passages not required.	Limited depth to the delay positions. Easier to penetrate or isolate units. Less time available to prepare each position. Less flexibility.
Delay from alternate positions.	AO is narrow. Forces are adequate to be positioned in-depth.	Allows positioning in-depth. Harder for enemy to isolate units. More flexibility.	More difficult mission command; requires continuous coordination. Requires passage of lines increasing vulnerability and fratricide potential.

WITHDRAWAL

4-157. Units might or might not conduct withdrawals under enemy pressure. The following is a brief discussion for planning, preparing, and executing a withdrawal. (See FM 3-90-1 for more information.)

FORMS OF WITHDRAWAL

4-158. The two types of withdrawals are assisted and unassisted. The commander's intent and METT-TC determine which type of withdrawal the units use.

Assisted Withdrawal

4-159. The assisting force occupies positions to the rear of the withdrawing unit and prepares to accept control of the situation. In addition, it can assist the withdrawing unit with route reconnaissance, route maintenance, fire support, and sustainment. Both forces closely coordinate the withdrawal. After coordination, the withdrawing unit delays to a BHL, conducts a passage of lines, and moves to its final destination.

Unassisted Withdrawal

4-160. The withdrawing unit establishes routes and develops plans for the withdrawal, then establishes a security force as the rear guard while the main body withdraws. Sustainment and protection elements usually withdraw first, followed by combat forces. To deceive the enemy as to the friendly movement, the BCT or CAB might establish a DLIC if withdrawing under enemy pressure. As the unit withdraws, the DLIC disengages from the enemy and follows the main body to its final destination.

ORGANIZATION OF A WITHDRAWAL

4-161. As with the delay, the CAB structures its force into a security force, main body, and reserve. It can elect to use a single company team or elements of a company team as the security or reserve force. It also can organize a DLIC or stay-behind forces, if required by the enemy situation. If operating independently, the CAB organizes itself in the same manner.

Security Force

4-162. The security force maintains contact with the enemy until ordered to disengage or until another force takes over the task. It simulates the continued presence of the main body, which requires additional allocation of enablers beyond that usually allocated to a force of its size.

Detachment Left in Contact

4-163. The DLIC is an element left in contact as part of the previously designated (usually rear) security force while the main body conducts its withdrawal. Its purpose is to remain behind to deceive the enemy into believing the CAB is still in position, while the majority of the unit withdraws. The DLIC should be one of the strongest of the subordinate units with the most capable leadership.

PLANNING A WITHDRAWAL

4-164. Because the force is most vulnerable if the enemy attacks, the commander and staff usually plan for a withdrawal under enemy pressure. They also develop contingency plans for a withdrawal without enemy pressure. During planning, the commander and staff consider the following:

- Disengagement criteria (time, friendly situation, enemy situation).
- Plan for a deliberate break from the enemy.
- Plan for deception to conceal the withdrawal for as long as possible.
- Displace the main body rapidly, free of enemy interference.
- Safeguard of withdrawal routes.
- Plan for breaching, gap crossing, or bypassing obstacles that hinder the withdrawal.
- Create obstacles between the enemy and the DLIC to complicate pursuit.
- Retain sufficient maneuver and functional and multifunctional support and sustainment or combat service support capabilities throughout the operation to support forces in contact with the enemy.

WITHDRAWAL SCHEME OF MANEUVER

4-165. A withdrawal may be assisted or unassisted and may occur with or without enemy pressure. The plan considers which of the variations the CAB faces based on the higher headquarters' order and the enemy situation. Some other considerations include:

- The element that will be the DLIC or rear guard must transition to cover the CAB's AO. Simultaneously, the CAB must prepare its sustainment assets and the remainder of the force to begin a rapid withdrawal to the rear. The CAB should seek to move on multiple routes to gain speed and shorten formations.
- The CAB commander essentially has two options for breaking contact: break contact using deception and stealth or break contact quickly and violently under the cover of supporting fires reinforced by obstacles to delay pursuit.
- When conducting a withdrawal without enemy pressure, the commander can focus the plan on the best method to displace forces rapidly. The commander may accept prudent risks that ultimately increase the force's displacement capabilities.

PREPARATION

4-166. The commander prepares the CAB for the withdrawal through inspections and rehearsals in the same fashion as discussed with other defensive operations. Inspections focus on subordinate unit preparations to ensure a clear understanding of the concept of operations and commander's intent.

EXECUTION

4-167. Execution of the CAB withdrawal essentially follows this pattern:

- Task-organizing and positioning security and deception forces.
- Reconnoitering withdrawal routes and subsequent positions.
- Preparing obstacles and fighting positions to support the DLIC and withdrawal.
- Preparing wounded Soldiers, damaged equipment, and nonessential supplies for movement.
- Positioning selected mobility and countermobility assets to respond to events that affect the withdrawal.
- Moving nonessential mobility, protection, and sustainment units to the rear.

- Positioning military police and other assets for traffic control.
- Initiating movement, leading with forward security forces.
- The DLIC's breaking of contact and movement as a rear guard.

Concealing the Withdrawal

4-168. The first priority is to conceal the withdrawal from the enemy. As the BCT or CAB initiates movement of forces, it must take measures to deceive the enemy and to maintain OPSEC.

Actions on Contact in a Withdrawal

4-169. Security forces counter any enemy attempts to disrupt the withdrawal or pursue the BCT or CAB. If the security force and the reserve cannot prevent the enemy from closing on the main body, the commander commits some or all of the main body to prevent the enemy from interfering further with the withdrawal.

Termination of the Withdrawal

4-170. Once the BCT or CAB successfully disengages from the enemy, it usually has the following options:

- Rejoin the overall defense.
- Transition into a retirement.
- Continue moving away from the enemy and toward its next mission area.

RETIREMENT

4-171. A retirement is a retrograde operation in which a force that is not in contact with the enemy moves to the rear in an organized manner. The CAB conducts a retirement as part of the BCT to reposition for future operations. The CAB usually organizes itself with security, main body, and reserve elements, depending on the situation and where the CAB is in the movement scheme. The commander and staff develop a movement plan based on the terrain, friendly situation and commander's guidance, and enemy situation. During preparations, BCT and CAB units conduct rehearsals and prepare for movement. During a retirement, the BCT and its CABs usually move to AAs to prepare for future operations. (See FM 3-90-1 for more information.)

SECTION VII – TRANSITIONS

4-172. During the planning for any operation, the CAB commanders and staffs must discern from the higher headquarters OPORD what the potential follow-on missions are and begin to plan how they intend to achieve them. The principal concerns are the same when transitioning. Whether the CAB is concluding an offensive or defensive operation, it must pause to consolidate and reorganize before the next operation. A successful defense often allows the CAB to transition to an attack, at other times to return to stability operations tasks.

4-173. Transitioning to the offense depends on defeating the enemy decisively and recognizing that defeat promptly. The ABCT commander must provide the planning and warning that precedes these transitions. CAB and company team commanders must be ready to confirm sensor indications of enemy's condition and to recommend transition to the offense as they sense the enemy's defeat.

CONSOLIDATION

4-174. Consolidation considerations are the same as in the offense. Some of the considerations such as reestablishing communication and security and maintaining contact are readily achieved after a successful area defense, which relied on them throughout the defense. After a mobile defense or retrograde operations, consolidation may require more time to achieve. Commanders might need to consolidate in order to reorganize, avoid culmination, prepare for an enemy counterattack, or allow time for movement of adjacent units.

4-175. The CAB may be directed to maintain contact with the enemy by redirecting reconnaissance and security capabilities, directing small-unit patrols, and conducting limited objective attacks. In some

situations, the CAB might retain control of key terrain or complete clearing the objective while the remainder of the ABCT transitions to a new mission.

REORGANIZATION

4-176. All units undertake reorganization activities during operations, as the situation allows, for maintaining combat effectiveness. After the CAB defeats an enemy attack, a more extensive reorganization can occur. Reorganization tasks usually include those items listed for the offense in chapter 3. (See FM 3-90-1.)

CONTINUING OPERATIONS

4-177. At the conclusion of an engagement, the CAB and its subordinate units may continue the defense, or if ordered, transition to offensive or stability operations tasks. All commanders consider their higher commander's concept of operations, friendly capabilities, and the enemy situation when making this decision. All missions should include plans for exploiting success or assuming a defense.

OFFENSE

4-178. Higher commanders may order the subordinate unit to conduct a hasty attack, MTC, or participate in exploitation. In some cases, the defensive operation might immediately transition into a pursuit. If reorganization is required, the echelon maintains pressure on the enemy through artillery, CAS, and limited objective attacks while any necessary reorganization takes place.

STABILITY

4-179. Commanders take care in planning transitions from defensive operations to stability operations tasks and vice versa. Subordinate commanders and leaders look for ways to recognize activities that would initiate this transition. Commanders, staffs, and Soldiers need to be aware that elements of the CAB could be conducting offensive and defensive operations and stability operations tasks simultaneously within a small radius of each other. Actions in one unit's AO can affect a change in whatever type operation an adjacent unit is conducting. For example, an offensive operation may result in displacing noncombatants to another section of the city, thus creating a requirement for stability tasks for the unit in that AO. (See FM 3-90-1 for more information.)

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Chapter 5
Stability

Stability operations ultimately aim to establish conditions the local populace regards as legitimate, acceptable, and predictable. Stability operations focus on identifying and targeting the root causes of instability and building the capacity of local institutions. Sources of instability are actors, actions, or conditions that exceed the legitimate authority's capacity to exercise effective governance, maintain civil control, and ensure economic development.

Stability operations restore, establish, preserve, and secure areas, populations, and resources. They are fundamental to the conduct of unified land operations. This chapter discusses the role of the CAB in support of stability operations.

SECTION I – OVERVIEW OF STABILITY

5-1. Stability operations tasks are those tasks executed by a commander to successfully accomplish stability operations. Stabilization is the process by which underlying tensions that might lead to resurgence in violence and a breakdown in the law and order are managed and reduced, while efforts are made to support preconditions for successful long-term development (see FM 3-07). Sources of instability manifest themselves locally. Instability may be caused by a catastrophic event, humanitarian crisis, foreign power-instigated violence, insurgency, or domestic rebellion and civil war. First, instability stems from decreased support for the government based on what locals actually expect from their government. Second, instability grows from increased support for antigovernment elements, which usually occurs when locals see spoilers as helping to solve the priority grievance. Third, instability stems from the undermining of the normal functioning of society where the emphasis must be on a return to the established norms.

STABILITY FRAMEWORK

5-2. A stability framework based on conditions within the AO of initial response, transformation, and fostering stability helps the unit determine the required training and task-organization of forces before initial deployment and serves as a guide to actions in an operation focused on stability. (See ATP 3-07.5 for more information.) Stability operations occur in three phases: phase 1 initial response, phase 2 transformation, and phase 3 fostering sustainability. These three phases facilitate identifying lead responsibilities, determining priorities, and describing the conditions of the operational environment. (See figure 5-1 on page 5-2.)

5-3. Actions of the initial response phase generally reflect activity executed to stabilize a crisis state in the AO. Army conventional force units typically perform initial response actions during, or directly after, a conflict or disaster in which the security situation prohibits the introduction of civilian personnel. Initial response actions aim to provide a secure environment that allows relief forces to attend to the immediate humanitarian needs of the local population. They reduce the level of violence and human suffering while creating conditions that enable other actors to participate safely in relief efforts.

5-4. Stabilization, reconstruction, and capacity-building are transformation phase actions that are performed in a relatively secure environment. Transformation phase actions occur in crisis or vulnerable states. There is the presence of a legitimate authority either interim or established, as well as indigenous HNSF. These actions aim to build HN capacity across multiple sectors. Transformation phase actions are essential to the continuing stability of the environment. These actions are essential for fostering stability within the area.

5-5. Fostering sustainability actions encompass long-term efforts, which capitalize on capacity building and reconstruction activities. Successful accomplishment of these actions establishes conditions that enable sustainable development. Usually, military forces perform fostering sustainability phase actions only when the security environment is stable enough to support efforts to implement the long-term programs that commit to the viability of the institutions and economy of the HN. Often, military forces conduct these long-term efforts to support broader, civilian-led efforts.

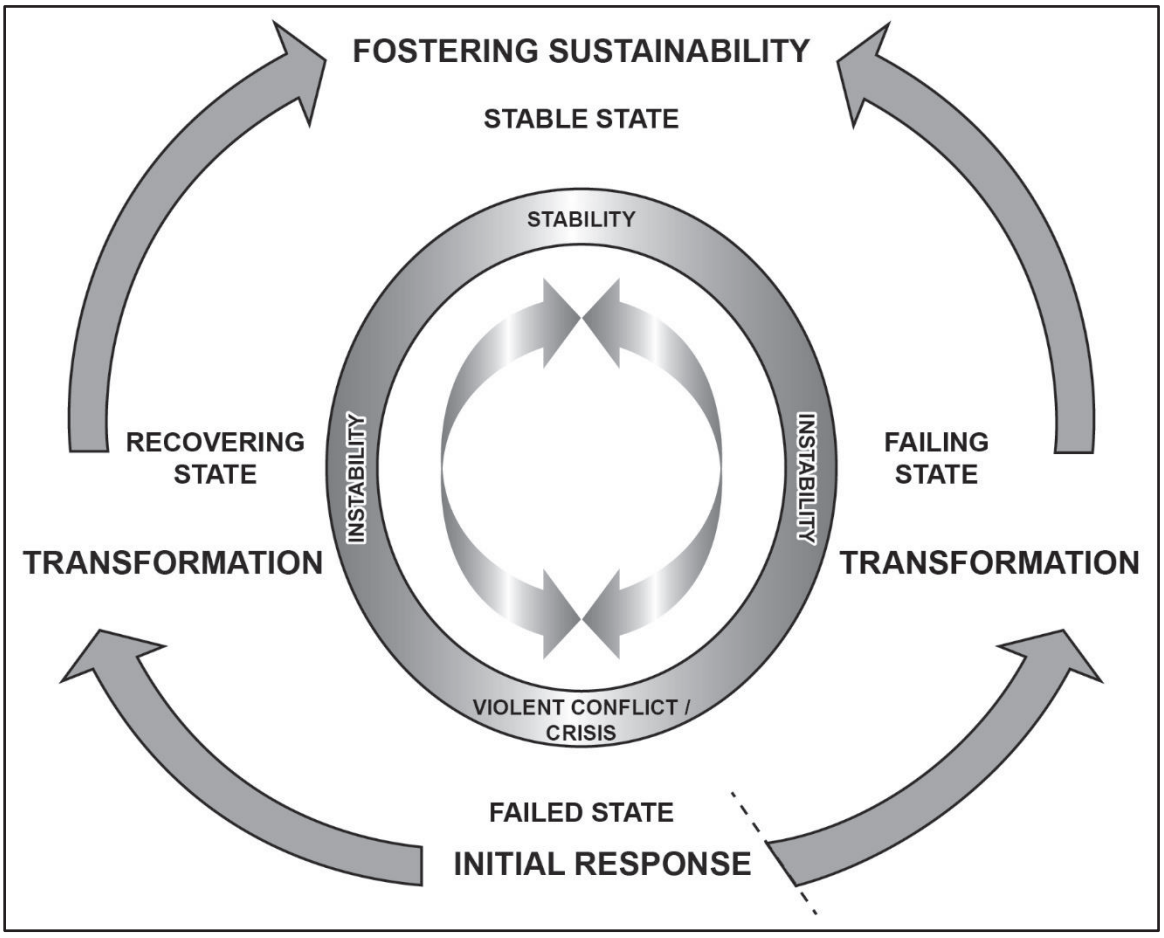


Figure 5-1. Stabilization framework

FUNDAMENTALS OF STABILIZATION

5-6. Any integrated approach to stability operations requires a framework that applies across the range of military operations, from military engagement to large-scale combat operations. It must frame purposeful intervention at any point along that range, reflecting the execution of a wide range of stability operations tasks performed in various operational environments (see ADP 3-07 for more information).

5-7. Executing stability operations supports the fundamentals of stabilization. When involved, military forces execute stability operations continuously throughout all joint operations. Executing stability operations mitigates the risk of lengthy military peacetime engagements during all phases of military operations. The following fundamentals of stabilization create the foundation for long-term stability:

- Conflict transformation.
- Unity of effort.
- Building HN capacity and capabilities.
- HN ownership and legitimacy.

CONFLICT TRANSFORMATION

5-8. Conflict transformation is a process for reducing the means and motivations for violent conflict while developing viable, peaceful alternatives for the competitive pursuit of political and socio-economic aspirations. It aims to set the HN on a sustainable, positive trajectory in which transformational processes directly address the dynamics causing instability.

UNITY OF EFFORT

5-9. Military operations typically demand unity of command; the challenge for military and civilian leaders is to forge unity of effort or unity of purpose among the diverse array of actors involved in a stability operation. This is the essence of *unified action* is the synchronization, coordination, and/or integration of the activities of governmental and nongovernmental entities with military operations to achieve unity of effort (JP 1).

5-10. *Unity of effort* is the coordination, and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization, which is the product of successful unified action (JP 1). Unity of effort is fundamental to successfully incorporating all the instruments of national power in a collaborative approach when conducting stability tasks in operations.

BUILDING HOST-NATION CAPACITY AND CAPABILITY

5-11. The primary role of external military forces during stabilization efforts may be to build HN military force capability and capacity. In stability operations, unified action to enhance the ability of the HN for security, governance, economic development, essential services, rule of law, and other critical government functions exemplifies building HN capacity. HN capacity can be described as an existing yet limited capability (of forces, skills, or functions) within an HN's security or civil sector that can be improved and employed on a national level.

HOST-NATION OWNERSHIP AND LEGITIMACY

5-12. Ultimate responsibility for stability rests with the HN. Commanders must clearly respect the views and interpretations of the HN regarding what it perceives the stability solution should be.

5-13. The CAB works to build legitimacy and trust of the HN elements in the AO. The commander, staff, and subordinate leaders foster legitimacy, credibility, and trust through decisions and actions that adhere to the moral principles and actions of the Army Ethic and comply with applicable U.S., international, and, in some cases, HN laws and regulations. The commander is responsible for ensuring the Soldiers operate per the law of war and ROE. It is the decisions and actions of trusted Army professionals who demonstrate their character, competence, and commitment by adhering to the upholding the Army Ethic who create and maintain international and HN trust.

STABILITY OPERATIONS TASKS

5-14. Army forces conduct the following six primary stability operations tasks: establish civil security, support civil control, restore essential services, support to governance, support to economic and infrastructure development, and security cooperation. At brigade level and below, the primary stability operations tasks are too broad to direct efforts to execute independently. They require partnership with outside organizations because they ultimately invoke political objectives executed in partnership with civic, security, humanitarian, and military organizations. However, during the initial response there may be none to limited support from unified action partners in the CAB's AO. The CAB must be prepared to execute limited tasks related to establishing civil security and establishing civil control without the assistance of unified action partners.

5-15. At lower tactical echelons, efforts require understanding of specific aspects of the local situation to identify and mitigate sources of instability. The CAB uses sewage, water, electricity, academics, trash, medical, safety, other considerations (SWEAT-MSO), and PMESII-PT to address the need to bring about stability in its AO. (See ATP 3-07.5 for more information.)

ESTABLISH CIVIL SECURITY

5-16. Establishing civil security involves providing for the safety of the HN and its population, to include security from internal and external threats; it is essential to provide a safe and secure environment. Civil security includes a diverse set of activities. These range from enforcing peace agreements to conducting disarmament, demobilization, reintegration, and includes biometric identity data collection to identify or nominate to the biometrically-enabled watch list persons of interest, criminal elements, known and suspected terrorists, and other irregular forces.

5-17. Until a legitimate civil government can assume responsibility for security, military forces perform the tasks associated with civil security. At the same time, they help develop HN security and police forces. Normally, the responsibility for establishing and maintaining civil security belongs to military forces from the onset of operations through transition, when HN security and police forces assume this role.

SUPPORT CIVIL CONTROL

5-18. Support to civil control centers on justice reform, the rule of law, and public order, underpinned by efforts to rebuild the HN judiciary, police, and corrections systems. Civil control tasks, along with oversight, accountability, and transparency of the justice sector deter corruption that threatens security, justice, and governance institutions. Civil control regulates selected behavior and activities of individuals and groups. This control reduces risk to individuals or groups and promotes security. Curfews and traffic checkpoints, together with biometric identity data collection, are examples of actions the CAB will conduct to support civil control.

RESTORE ESSENTIAL SERVICES

5-19. The CAB is capable of providing only minimal essential services. Normally, the military force supports other government, intergovernmental, and HN agencies improving essential services. However, a plan for providing emergency services include—

- Emergency medical care and rescue. The CAB can participate in a civic action program and other medical-type events. However, most of the time this needs to be run by a higher echelon. Medical civic action programs can be very beneficial in gaining the trust of the local population.
- Providing food and water. The CAB generally needs to be augmented to provide food and water to the local population. However, a plan for providing food and water should be made in case the need arises.
- Providing emergency shelter. The CAB generally needs to be augmented to provide emergency shelter to the local population. However, a plan for providing emergency shelter should be made in case the need arises. This plan should be developed with higher echelons and with HNSF.

5-20. Commanders must recognize that an HN populace may perceive these tasks as political or as favoring one group over another. In patronage-based societies, tasks often favor an ethnic group or a group where the political power of actors correlate with how many favors or dollars they can deliver to their populace. In these circumstances, the HN populace's perceptions of even simple assistance tasks as favoritism potentially fuels conflict.

SUPPORT TO GOVERNANCE

5-21. If the HN government cannot adequately perform its basic civil functions, then some degree of military support to governance may be necessary. Military support to governance focuses on restoring public administration and resuming public services while fostering long-term efforts to establish a functional, effective system of political governance. The CAB must be prepared to act as a transitional military authority during initial response. The support provided by military forces helps to shape the environment for extended unified action by other partners. Support to governance tasks establish conditions that enable interagency and HN actions to succeed. The CAB commander focuses on transferring control of governance efforts to a legitimate civil authority according to the desired end state.

SUPPORT TO ECONOMIC AND INFRASTRUCTURE DEVELOPMENT

5-22. Support to economic and infrastructure development helps an HN develop capability and capacity in these areas. It may involve direct and indirect military assistance to local, regional, and national entities. CABs are capable of coordinating with local officials or elders to fund limited projects using a commander's emergency response program. These limited projects can support the local economy and assist with rebuilding the local infrastructure by providing employment opportunities, infusing monetary resources into the economy, and stimulating market activity. It is important for military leaders to understand the economic fundamentals of the area to prevent artificial conditions that may not endure long-term.

CONDUCT SECURITY COOPERATION

5-23. *Security cooperation* is all Department of Defense interactions with foreign security establishments to build security relationships that promote specific U.S. security interests, develop allied and partner nation military and security capabilities for self-defense and multinational operations, and provide U.S. forces with peacetime and contingency access to allied and partner nations (JP 3-20). Security cooperation aims to promote stability, develop alliances, and gain and maintain access through security relationships that build partner capacities and capabilities.

5-24. Establishing or reestablishing competent HNSF is fundamental to providing lasting safety and security for the HN and its population. Security cooperation primarily focuses on interoperability programs with core partners and the fledging security forces of a failed or failing HN. Security cooperation activities and their purposes adapt as conditions change and as resource availability changes.

SECTION II – PLANNING CONSIDERATIONS

5-25. Stability operations tend to be decentralized and conducted over extended distances, except specific actions undertaken in combating terrorism, support to counterdrug operations, and noncombatant evacuation operations. As decentralized operations, the units' activities consist largely of separated small-unit operations conducted across an assigned sector or AO. To encourage cooperation from indigenous forces and gain popular support, the CAB must conduct these operations with consistency, impartiality, and discipline. During large-scale combat operations and initial response, stability operations will likely be centralized as the tasks will be limited in scope and initial UAP involvement will be limited. During transitions from offense or defense operations to stability operations tasks, commanders and staffs must quickly assess their civil considerations in terms of the relevant factors of ASCOPE.

SITUATIONAL UNDERSTANDING

5-26. Stability operations are conducted in a dynamic environment. Understanding the dynamics of the environment helps units successfully adapt to the special requirements presented. Although not applicable in every mission, the following considerations apply to many stability operations tasks:

- Military operations should align with political objectives.
- Commanders must be aware that their operations can create more enemies if mitigations are not taken.
- Noncombatants are defining characteristics of most modern military operations.
- Joint, interagency, and multinational cooperation is desired but not always aligned with one another's goals.
- Decentralized operations.
- Mission creep risk.
- Commanders must be prepared to discuss their efforts with a myriad of international organizations and nongovernmental organizations.
- Information intensity and means of communication.
- Constraints.
- Army forces must establish and maintain good working relations with indigenous personnel and leaders.

- Nonlethal weapons.
- Stability operations tasks place great demands on small units and small-unit leaders.
- Stability operations tasks normally require interpreters and cultural understanding.

UNIT INTEGRATION

5-27. When operating inside a multinational organization, commanders should expect to integrate units down to the company level for combat units and to the individual level for support units. Commanders should train with this reality in mind. Units operate under procedures modified to agree with the SOPs for the alliance or coalition. It is accepted that effectiveness initially decreases when operating in a multinational force, but through training and understanding of standards and procedures, unit performance will improve.

INTERAGENCY COORDINATION

5-28. One factor that distinguishes stability operations from offensive and defensive operations is the requirement for interagency coordination at the battalion level and below. In interagency operations, Army commanders have inherent responsibilities including the requirements to clarify the mission; to determine the controlling legal and policy authorities; and to task, organize, direct, sustain, and care for the organizations and individuals for whom they provide the interagency effort. They also assure seamless termination under conditions that ensure the identified objectives are met and can be sustained after the operation.

BUILDING RELATIONSHIPS

5-29. Success in stability operations is often defined by the quality of relationships developed between the CAB and HNSF, government officials, and key opinion makers. Additionally, partnership with multinational, interagency, and nongovernmental factors will often force commanders to adjust to ambiguous C2 relationships. CAB commanders define the role and scope of the unit mission upfront and then establish clearly understood engagement strategies that include a clear narrative nested with the higher commander's intent and a clear delineation of responsibilities for meeting with key leaders within the operational environment. This prevents confusion among HN leaders about who they should talk to in the security force and the overall message and purpose of actions within the ABCT.

SOLDIER AND LEADER ENGAGEMENT

5-30. *Soldier and leader engagements* are interpersonal interactions by Soldiers and leaders with audiences in an area of operations (FM 3-13). It can occur as an opportunity, a face-to-face encounter on the street, or a scheduled meeting. This interaction can also occur via telephone calls, video teleconferences, or other audiovisual mediums. Soldiers and leaders conduct this engagement to inform or to influence attitudes, values, beliefs, and behavior. This engagement provides a venue for building relationships, solving conflicts, conveying information, calming fears, and refuting rumors, lies, or incorrect information. Effectively integrating Soldier and leader engagement into operations increases the potential for commanders to mitigate unintended consequences, counter adversary information activities, and increase local support for friendly forces and their collective mission. (See FM 3-13 for more information.)

CIVIL AND CULTURAL CONSIDERATIONS

5-31. The elements of civil and cultural considerations help supported units and organizations understand the evolving sociocultural environment and considerations, with special focus on civilians, thereby refining decision-making across a broad spectrum. The commander decides how a human terrain team supports the staff.

5-32. Civil considerations involve attaching human terrain teams to ABCTs. Civil considerations use observed sociocultural research and analysis to fill a large operational decision-making support gap. This research provides current, accurate, and reliable data generated by on-the-ground research on the specific social groups. This knowledge provides a sociocultural foundation for the staff's support to the commander's MDMP, in planning and execution. It enables an effective rotation of forces by creating and maintaining an enduring sociocultural knowledge base. (See FM 3-13 for more information.)

INFORMATION OPERATIONS

5-33. Information operations synchronization of information-related capabilities promotes the legitimacy of the mission and reduces bias, ignorance, and confusion by persuading, educating, coordinating, or influencing targeted audiences. Further, it promotes—through Soldier and leader engagement, CA operations, and military information support operations, among other information-related capabilities—interaction at all echelons with these audiences so these target audiences understand the objectives and motives of battalion and that of the BCT, and the scope and duration of area security actions. Combined with broad efforts to build partner capacity, for example, security force assistance. During large-scale combat operations, information operations will likely focus on tactical deception, OPSEC, and degrading enemy capabilities. Information operations are essential to achieving decisive results: a stable HN government and peaceful civilian population. (See ATP 3-13.1 for more information.)

5-34. When an information operations officer or NCO is attached or established within the battalion (one technique is the use the electromagnetic warfare NCO), an information operations officer planner coordinates with the BCT information operations officer to synchronize information-related capabilities into the battalion's information operations planning. Synchronization requires the battalion information operations staff planner to participate in battalion targeting within the fire support cell as well as the various working groups and meetings chaired by the current and future operations and other integrating cells within the battalion. Participation allows for the development of a holistic understanding of the information environment within the problem sets facing the battalion staff. A staff-wide understanding helps synchronize the information operations related planning and targeting and allows for shifts in priorities. This synchronization, in coordination with the information operations and civil-military operations managed at the BCT enables united action partners to be incorporated into planning.

5-35. When attached or established within the battalion, an information operations officer or NCO planner is responsible for synchronizing and de-conflicting information-related capabilities employed in support of battalion operations. In coordination with the information operations officer at the Infantry BCT, the information operations officer or NCO staff planner synchronizes capabilities within the battalion staff that communicate information to audiences and affect information content and flow of enemy or adversary decision-making while protecting friendly information flow. (See FM 3-13 and FM 3-96 for additional information.)

SUSTAINMENT REQUIREMENTS

5-36. The operational environment the CAB faces during stability operations tasks has special logistics considerations. These can include—

- Reliance on local procurement of certain items.

Note. Local contracting might need to be split between belligerent parties.

- Class IV supplies for construction of fixed OPs and checkpoints.
- Use of existing facilities or new construction for quarters; water, sewer, and power utilities; and reinforced hardstand areas for maintenance.
- Barriers or berms to protect ammunition and fuel.
- Special class V supply requirements, such as pepper spray.
- Reliance on bottled water and contracted food service.
- Use of female Soldiers to assist with searching HN female suspects.
- Special FHP considerations include—
  - Extended operations in one location may require dedicated sanitation and personal hygiene facilities.
  - Sustained exposure to possible threat attack might lead to exhaustion and increases the possibility of combat operational stress reaction.
  - Care of detainees (for example, enemy prisoners of war, retained personnel, detained persons, and civilian internees).

RULES OF ENGAGEMENT

5-37. *Rules of engagement* are directives issued by competent military authority that delineate the circumstances and limitations under which U.S. forces will initiate and/or continue combat engagement with other forces encountered (JP 3-84). ROE reflect the requirements of the law of war, operational concerns, and political considerations when military force shifts from peace activities to combat operations and back to the peace phase of an operation. These requirements are the primary means the commander uses to convey legal, political, diplomatic, and military guidance to the military force for handling the crisis in peacetime. The ROE is not just restricted to units conducting stability operations tasks but applies across tasks that the CAB executes.

5-38. The ROE restrict the use of military force in order to achieve the political objectives. In all operations, the commander is legally responsible for the care and treatment of civilians and property in the AO until transferred to proper authorities. The ROE assist the commander in fulfilling these responsibilities. They vary in different conflicts and often change during the respective phases from combat or crisis through peace building or nation assistance.

5-39. The ROE must be consistent with training and equipment capabilities. When necessary, command guidance clarifies the ROE. While the rules must be tailored to the situation, commanders should observe that nothing in such rules negates their obligation to take all necessary and appropriate action in unit self-defense, allowing Soldiers to protect themselves from deadly threats. The ROE can rule out or impose special limitations on the use of weapons. Examples include the requirements for warning shots, single-shot engagements, and efforts to wound rather than kill. A CAB deploying for stability mission trains its Soldiers to interpret and apply the ROE effectively. It is imperative for everyone to understand the ROE since small-unit leaders and individual Soldiers must make ROE decisions promptly and independently.

5-40. Changes to the ROE can result from immediate tactical emergencies at the local level. The commander should be able to request changes to the ROE. Changes are requested through the operational chain of command and must be approved by the designated authority, usually division or higher-level command. Commanders at all levels need to know the request channels for ROE as well as the procedures to obtain approval for recommended changes to the ROE. Situations requiring an immediate change to the ROE could include introduction of combat forces from a hostile nation, attacks by sophisticated weapons systems including weapons of mass destruction, or incidents resulting in loss of life. These situations should be wargamed and special instructions included in all OPORDs and FRAGORDs that specifically state when and how commanders at all levels can adjust the ROE.

5-41. The ROE are established for, disseminated down to, and understood by individual Soldiers. However, the ROE cannot include every situation. Soldiers at all levels must understand the intent of the ROE and act accordingly despite any military disadvantage that may occur. The commander responsible for ROE formulation should consider a commander's intent that describes the desired end state of the operation as well as conflict termination considerations. The commander's intent should provide a framework for a proportionate response in the use of force. These considerations assist commanders and leaders at all levels in situations not clearly addressed in an OPORD. Further, ROE must be an integral part of all predeployment training. (See AR 350-1 and FM 6-27 for more information.)

LEVERAGE SPECIAL OPERATIONS FORCES, JOINT, INTERAGENCY, AND MULTINATIONAL COOPERATION

5-42. As with all operations, unity of effort is fundamental to success. SOF may have operated in the CAB AO prior to CAB deployment. The nature of SOF operations involves being familiar with the local culture and the abilities of HN forces and civil authorities. Although SOF units might not directly operate with the CAB, they are an excellent source of intelligence. Similarly, the CAB's joint, interagency, and multinational partners may be able to provide valuable information on terrain, threats, and the local populace in the AO. Incorporating these personnel and their knowledge into planning work groups can aide in a greater understanding of the pulse of the sources of instability that can affect military operations environment, such as, no-fire area, terrain and facilities military can utilize during a time of war, and key leaders that can influence the populace.

CIVIL-MILITARY OPERATIONS

5-43. Tactical-level civil-military operations must include gaining the support of local-level stakeholders. Operations promote the legitimacy and effectiveness of a U.S. presence and operation among locals. At the same time, these operations minimize friction between the military and the civilian organizations in the field. (See JP 3-57 for more information.)

Civil Affairs

5-44. CA forces are organized, trained, and equipped specifically to plan and execute CA operations across the range of military operations, engaging the civil component (indigenous populations and institutions, unified action partners, other civil entities, and interagency) to support the joint forces commander's civil-military operations concept. CA operations engage and leverage the civil component (people, organizations, and capabilities) to enhance situational understanding, mitigate threats to civil society, and consolidate gains in support of the strategic objective of establishing a secure and stable operational environment that is consistent with U.S. interests. (See FM 3-57 for additional information on CA operations.)

Civil-Military Operations Center

5-45. The CAB can be augmented with a CA team by the ABCT commander, if a CA company has been attached to the ABCT. The CA team can conduct civil information management, provide analysis and solutions for civil factors and limited civil-military operations center functions within the CAB AO. The civil-military operations center capability resides at the CA company level and can be used to augment the efforts of the CA team. Additionally, the CA team can request additional support and expertise from higher echelon CA elements to augment their mission requirements from the CAB. (See FM 3-57 and ATP 3-57.70 for more information on the civil-military operations center and its capabilities.)

PSYCHOLOGICAL OPERATIONS

5-46. Psychological operations forces exert significant influence on foreign targets and audiences and are often the primary capability for affecting their behaviors. During the conduct of stability operations tasks, psychological operations forces advise the commander and staff on the psychological effects of operations, provide public information to support humanitarian assistance, and assist commands to assess adversary propaganda.

5-47. The CAB likely conducts targeted information dissemination while establishing civil control with the purpose of positively influencing public behavior to support the unit and the developing HNSF and government operations. Noninterference messages provide information on the consequences of interfering with these operations and a means for the local populace to provide tips on insurgents and their activities.

MILITARY DECEPTION

5-48. Military deception involves actions executed to deliberately mislead adversary military, paramilitary, or violent extremist organization decision makers. This information-related capability intends for the adversary to take specific actions (or inactions) that contribute to the accomplishment of the friendly mission. Military deception comprises counterdeception, deception to support OPSEC, and tactical deception. (See FM 6-0 and FM 3-13.4 for more information.)

SECTION III – EXECUTING STABILITY OPERATIONS TASKS

5-49. Leaders often plan and conduct stability operations tasks in concert with those outside the U.S. military. Army forces are often the supporting organization rather than the lead agency. However, the efforts of all involved must be coordinated toward a unified effort. Commanders use liaison elements and coordination centers to facilitate unity of effort. Commanders should be flexible in modifying standard mission command arrangements to meet specific requirements of each situation and to promote unity of effort.

ESTABLISHING A COMMON OPERATIONAL PICTURE

5-50. Commanders must achieve mass, concentration, and their objective. In addition, they must not become so decentralized as to piecemeal their efforts. The CAB creates and maintains a COP, utilizing analog and digital systems, which give the commander improved situational understanding. This improved situational understanding enables the commander to command dispersed elements of the CAB while retaining the flexibility to quickly mass forces at the decisive point on the battlefield. The COP should include relevant joint, allied, HN, and nongovernmental organization information and share appropriate COP information in turn.

MAINTAINING COMMUNICATIONS

5-51. When conducting stability operations tasks, communications can be difficult. In addition to problems of compatibility and security, many participants do not have enough communications equipment to meet mission requirements. Communication planners should play an active role in the initial operations planning process to identify the required communications architecture to interconnect the CAB with all of its military and civilian partners. Liaison teams, with adequate communications equipment, can reduce the severity of some of these problems.

5-52. Satellite communications are needed to provide communications between the higher-level headquarters. Other space-based services, such as weather reporting and use of the Global Positioning System, might also be needed (see FM 3-14 for more information). Communications planners must anticipate these requirements during initial deployment planning, evaluate HN communications resources, and integrate them into the overall communications structure. Continual centralized interfacing between key communications planners during planning, rehearsal, and operational phases helps alleviate interoperability issues. Planners should address issues of spectrum management and controls on access to information systems early in planning. The loss of space-based communications due to enemy activity remains a major concern for U.S. Army forces conducting deployed operations. Whether the interruption of the communications is caused by enemy action against satellites or through the use of intermittent jamming or spoofing, the resulting black-out will require U.S. forces to adapt and adjust until the capability is restored. Short-term losses or disruptions of satellite communications will have to be mitigated through alternative communications methods and courier networks.

CYBERSPACE ELECTROMAGNETIC ACTIVITIES

5-53. Cyberspace electromagnetic activities protect the mission command system by seizing, retaining, and exploiting an advantage over the enemy in cyberspace and the EMS while denying and degrading enemy use of the same. Cyberspace electromagnetic activities include cyberspace operations, EW, and EMS operations. These activities deny, degrade, or disrupt the enemy's use of its C2 systems and other cyberspace capabilities.

DECENTRALIZED EXECUTION

5-54. Subordinate commanders need maximum flexibility in executing their missions. The commander must give clear guidance in order to ensure subordinates understand the intent.

5-55. Given the volatile and politically charged nature of most stability operations tasks, individual and small-unit actions can have consequences disproportionate to the level of command or amount of force involved. In some cases, tactical operations and individual actions can have strategic consequences. Preventing these problems requires disciplined, knowledgeable leaders and Soldiers at every level who clearly understand the CAB commander's intent.

MISSION DEBRIEFINGS

5-56. When conducting stability operations tasks, the S-2 should plan for debriefing, any missions that occur outside forward operating bases. Soldiers on convoys, patrols, and LOGPACs have the capability to observe subtle changes in terrain, road conditions, civilian activity, and other indicators that are of intelligence value

when reported. The use of digital cameras, along with mission prebriefings and debriefings should be standardized in the unit TACSOP.

SECTION IV – TRANSITIONS

5-57. Transitions mark a change between phases or between the ongoing set of tasks and execution of a branch or sequel. Shifting priorities between the elements of decisive action—such as from the offense to operations focused on stability operations tasks—involves a transition.

5-58. Transitions require planning and preparation well before their execution to maintain the momentum and tempo. The force can be vulnerable during transitions, so commanders establish clear conditions for their execution. Transitions may create unexpected opportunities and may make forces vulnerable to enemy threats.

TRANSITION TO THE OFFENSE OR DEFENSE

5-59. During an operation focused on stability operations tasks there may be instances where units quickly transition back to operations focused on offensive operations against irregular forces or defensive operations to defeat counterattacks. To facilitate the transition, commanders consider an offensive contingency while conducting operations focused on stability operations tasks. They consider how to generate combat power quickly to take the initiative. It can come from organic, partnered, joint, and HN forces depending on the situation.

5-60. Commanders ensure that transitions from defensive operations to stability operations tasks and vice versa are planned. For example, it may be tactically wise for commanders to plan a defensive contingency if there is a significant global, national, or regional event that negatively affects the AO. Transitioning to a defense should not negate the progress made during stability operations tasks. It should be a temporary change made until the initiative can be regained or until the partnered nation can assume responsibility. The CAB must be prepared to transition from offense to stability to defense. The rapid conduct of key stability tasks of a short duration may be required to stabilize an area long enough for a follow-on force to assume control.

5-61. The conditions for transitioning from stability to a retrograde normally occur during transformation or when fostering stability phases. This is most likely when an intended political outcome is aimed at the influence of the military's and security force's presence. The CAB will most likely support a withdrawal or a retirement as part of a larger force. Most likely it provides security as personnel, equipment, and property and moved out of the HN. Property accountability requires the coordination and clarification for items on various property books and supply chain issues.

TRANSFER OF AUTHORITY

5-62. Stability operations tasks include transitions of authority and control between military forces, civilian agencies and organizations, and the partner nation. Each transition involves inherent risk. Transitions are identified as decisive points on lines of effort. They typically mark a significant shift in effort and signify the gradual return to civilian oversight and control of the partner nation.

5-63. Often during stability missions, relief in place or transfer of authority (TOA) occurs. Besides the normal responsibilities of a relief, commanders deal with civilians or multinational partners. During stability operations tasks, units generally know whether they will be relieved at the end of their tour. Planning for the TOA begins as soon as the unit occupies the AO.

5-64. Before the TOA, the departing unit develops a continuity book with the necessary intelligence on the AO. The book should include lessons learned; details about the populace, village, and patrol reports; updated maps and photographs; and anything that helps newcomers master the CAB operational environment. The CAB should be familiar with its incoming counterparts particularly if it is a different organization that could include light Infantry or other foreign or North Atlantic Treaty Organization units. Clear articulation of unit organization skills and the operational environment helps the incoming unit identify needs and gaps distinguishing between the different units. Commanders should ensure that these continuity books are

updated during the unit's tour of duty. This extensive effort reduces casualties and increases the established and succeeding units' efficiency and knowledge of operations.

5-65. A consistent theme from recent operations is the importance of the transition training (right seat or left seat rides) with incoming Soldiers during TOA. A detailed and programmed TOA allows Soldiers to learn the culture and effectively work with partner nation personnel during the deployment. Typical training during the relief includes the following:

- Use of the AO-specific equipment not available before TOA.
- Enemy tactics, techniques, and procedures for improvised explosive devices.
- Actions on contact.
- Personal meetings with nongovernmental organizations, contractors, interpreters, informants, and local police that operate in the unit AO.
- Negotiation techniques with local tribal, religious, and government officials.
- Operations and intelligence handover of databases, plans, products, and briefings.
- Information collection procedures, processes, and policies.

TRANSITION TO PARTNER NATION SECURITY FORCE CONTROL

5-66. During long-term security force assistance, conditions on the ground, not time, determine the TOA from U.S. forces control or partnership to partner-nation control. The overall authority for the hand off and the subsequent TOA lies with the commander ordering the change. The authority for determining the hand off process lies with the incoming commander assuming responsibility for the mission. This changeover process may affect conditions under which the mission continues. (See FM 3-07, ATP 3-07.10, and FM 3-22 for more information.)

5-67. Changes in the operational environment such as increased attacks, significant destabilization with the infrastructure or people, culturally impacting events inside or outside the operational environment, or development of security forces may require reshaping force packages as situations change. Internal administrative concerns might prompt or support the commander's decision to rotate units. Mission hand off is necessary and defined as the process of passing an ongoing mission from one unit to another with no discernible loss of continuity.

5-68. Commanders make specific considerations along with METT-TC when a TOA to a multinational force. For units relieved of a function by a government agency, procedures typically entail longer hand off times and more complex coordination. Outgoing units that have past, present, or future projects planned with agencies prepare to transfer these projects to responsible agents in the incoming unit.

Chapter 6
Sustainment

Sustainment is the provision of logistics, financial management, personnel services, and health service support necessary to maintain operations until successful mission completion (ADP 4-0). The provision of sustainment is an integrated process (people, systems, materiel, health services, and other support) inextricably linked to operations. The FSC has greatly reduced the CAB commander and staff's technical oversight responsibilities for supply, transportation, and maintenance. Although the BSB provides technical oversight to the FSC, the sustainment function is critical. The CAB commander and staff still bear the responsibility of describing the requirements in the concept of support and integrating that support into the CAB's concept of operations. Because of their criticality and proximity to combat operations, medical platoons remain organic to CAB.

SECTION I – SUSTAINMENT FUNCTIONS AND ORGANIZATIONS

6-1. The CAB commander ensures that sustainment is provided for organic and attached elements and ensures OPCON or supporting units receive necessary support from the proper headquarters. Based upon guidance from the CAB commander and XO, the S-4 coordinates sustainment for the attachments and verifies who is to provide this support and how it is to be requested. When a large attachment joins the CAB, the attachment should bring appropriate logistics assets from its parent unit if possible. The CAB S-4 provides guidance to these assets as well as those of the FSC. The attached unit leaders must coordinate with the CAB S-1 and furnish a copy of the unit battle roster. Thereafter, the attached unit submits reports and requests resupply according to the CAB TACSOP.

SUSTAINMENT FUNCTIONS

6-2. The sustainment warfighting function provides support and services to ensure freedom of action, extend operational reach, and prolong endurance. The sustainment warfighting function includes four elements: logistics, finance and comptroller, personnel services, and HSS, each which must be integrated and synchronized across all warfighting functions to ensure the appropriate level of support.

6-3. Elements of logistics include maintenance, transportation, supply, field services, distribution management, operational contract support, and general engineering. Finance and comptroller leverage fiscal policy and economic power across the range of military operations and encompasses finance operations and resource management. Personnel services are sustainment functions that man the force, maintain Soldier and family readiness, promote the moral and ethical values of the nation, and enable the fighting qualities of the Army. HSS encompasses all support and services performed, provided, and arranged by the AHS to promote, improve, conserve, or restore the behavioral and physical well-being of Army personnel and, as directed, unified action partners. (See ADP 4-0 for more information.)

SUSTAINMENT ORGANIZATIONS

6-4. The BSB is an organic component of a BCT. It provides supply, maintenance, motor transport, and Role 2 medical support to the supported BCT or brigade. It is tailored to support the brigade to which it is assigned. The distribution, field maintenance, and brigade medical support companies have a general support relationship with the BCT units to include the FSCs. The FSCs have a direct support relationship with the supported maneuver battalion. The FSCs are typically attached to the supported maneuver battalion to create

habitual sustainment relationships but can also be attached for limited periods of time based on mission requirements. This attachment is normally limited to the duration of a specific mission or phase of an operation.

SUSTAINMENT STAFF

6-5. The sustainment staffs are integrated into every aspect of operations. They must monitor operations throughout and anticipate the needs of the CAB. They are subject matter experts in their areas and must be adaptable to any unforeseen situation. The CAB staff sections responsible for sustainment planning are: S-1, S-4, BMO, and the medical platoon leader.

MEDICAL PLATOON

6-6. The medical platoon provides Role 1 medical support to the CAB and all supporting units in the CAB AO. The medical platoon triages, treats, and evacuates casualties or returns them to duty. It stocks medical supplies and provides class VIII support to company medical teams. It performs operator maintenance of the battalion's medical equipment and coordinates for biomedical equipment repair through the BSMC. The medical platoon's survivability and mobility are increased by the use of evacuation vehicles and aid stations. The medical platoon leader or physician, physician assistant, and medical platoon sergeant oversee BAS operations. (See FM 4-02 for more information.) The medical operations officer, a medical service corps officer, coordinates the operations, administration, and logistics of the medical platoon. At the discretion of the commander, may be assigned as the medical platoon leader. The duties include the following:

- Overseeing the daily administrative and logistical operations for the medical platoon.
- Coordinating MEDEVACs of patients to higher roles of care.
- Supporting medical platoon personnel that are providing direct support to the maneuver companies.

CAB HEADQUARTERS AND HEADQUARTERS COMPANY

6-7. The CAB HHC is responsible for the administrative and sustainment support for the HHC and battalion staff and its CPs. It has a supply section to provide unit-level supply and armorer support to the Soldiers and equipment of the CAB headquarters.

BRIGADE SUPPORT BATTALION

6-8. The BSB is the BCT's organic sustainment unit. The BSB commander, assisted by the support operations officer, manages sustainment operations (including AHS) for the BCT commander. The support operations officer is the key interface between the supported units and the BSB. The support operations officer plans and monitors support operations and makes necessary adjustments to ensure support requirements are met. The support operations officer requests and coordinates augmentation with the higher echelon when requirements exceed capabilities. The BSB also has a sustainment automation support management officer who assists with maintenance of logistics-related standard logistics information systems, very small aperture terminal, and combat service and support automation information systems integrated throughout the BCT.

6-9. The BSB can have up to six FSCs and three other companies in addition to its HHC. The BSB companies are—

- Distribution company.
- Field maintenance company.
- Medical company.
- FSCs (one for each CAB, Cavalry squadron, engineer battalion, and field artillery battalion).

FORWARD SUPPORT COMPANY

6-10. The role of the FSC is to provide direct logistics support to the supported battalion. The FSC provides the supported commander with dedicated logistics assets organized specifically to meet the battalion's

requirements. The FSC provides field feeding, bulk fuel, general supply, ammunition, distribution, and field maintenance. The FSC commander receives technical logistics oversight and mentoring from the BSB commander. FSC commanders must have a continuous relationship with the BSB support operations officer. The BSB commander will utilize the support operations officer to ensure that all FSC commanders understand their brigade logistics support plan in support of the battalion commander's guidance. The FSC commander advises the battalion S-4 and XO on logistics planning and is responsible for executing the logistics plan per the BSB and CAB commander's guidance. The FSC receives supplies and specialized maintenance support from the BSB. (See ADP 4-0 for more information.) The FSC is organized as in figure 6-1 to support—

- Food and water (class I).
- Fuel (class III).
- Barrier materiel (class IV).
- Ammunition (class V).
- Repair parts (class IX).
- Maintenance and recovery.
- Supply and distribution.

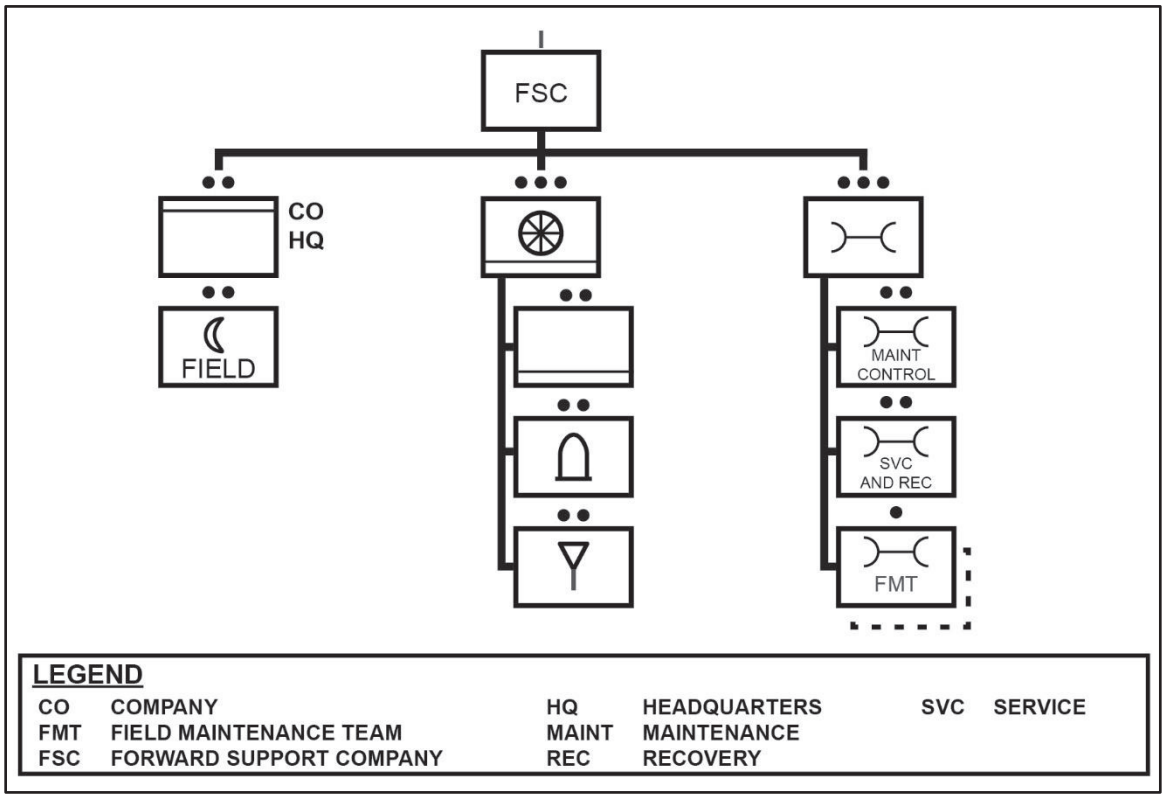


Figure 6-1. Forward support company

6-11. The FSCs normally operate in close proximity to the supported battalion. The location of the FSC commander and the distance separating the FSC and the supported battalion is METT-TC with C2 logistics assets protection and required resupply turn-around times being key considerations. The FSC has distinct FMTs to support each Armor and mechanized Infantry company. These teams generally have a direct support relationship to their supported companies.

SUSTAINMENT PLANNING

6-12. The S-4, S-1, and battalion XO are the principal sustainment planners. The FSC commander advises the supported battalion S-4 and XO and is responsible for executing the logistics plan following the maneuver battalion commander's intent. The battalion XO, operating from the CAB main CP, monitors sustainment operations and ensures appropriate synchronization of support. The S-4 and S-1 maintain a continuous awareness of requirements, expenditures, and losses during all operations via status reports and estimates. The battalion XO, S-1, and S-4 use the logistics estimate to determine sustainment capabilities, anticipate support requirements, identify and resolve shortfalls, and develop the battalion concept of support.

6-13. The key to successful logistical operations is creating a logistics estimate of the tactical operation through phases in conjunction with the S-3 and other staff section during MDMP. The S-4 must take into consideration each phase of the operation, the distance traveled by the battalion, the time the battalion needs to travel that distance, and the consumption rate of all classes of supply. The logistics estimate and METT-TC will assist in determining the logistics task-organization and the placement of FSC assets between the combat trains and field trains. Commanders should carefully assess the risk to the overall sustainment mission when deciding to forward position FSC fuel assets in the CTCP. The logistics estimate is used to create the concept of support. The concept of support and the logistics task-organization will be discussed during the battalion sustainment rehearsal. Integrate the logistics plan into the S-3 operational plan early to mitigate shortfalls and to develop and synchronize sustainment with maneuver and fire plans.

6-14. Sustainment planners must thoroughly understand the mission, tactical plans, and CAB commander's intent. They must know the following information:

- Mission, task-organization, and concept of operations for all subordinate units in the CAB.
- Brigade sustainment plans.
- Casualty estimates.
- Known and anticipated branch plans and sequels.
- The density of personnel and equipment of each subordinate unit.
- Known and anticipated enemy situation and capabilities.
- Unit basic loads.
- Mission-related consumption rates.

LOGISTICS ESTIMATE

6-15. A logistics estimate is an analysis of logistics factors affecting mission accomplishment. Sustainment planners use these estimates to recommend COAs and to develop plans to support selected concepts of operation. The key concerns of CAB sustainment planners are the status of supply classes III, IV, and V and the operational status of tanks, IFVs, and other combat vehicles. Logistics estimates are frequently formulated in terms that answer the following questions:

- What is the current and projected status of maintenance, supply, and transportation?
- How much of what is needed to support the operation?
- How will it get to where it is needed?
- What external support is needed?
- Can the requirements be met using LOGPAC operations or are other techniques necessary?
- What are the shortfalls and negative impacts?
- What COAs can be supported?

6-16. Sustainment planners must anticipate and understand the support requirements of a tactical plan or COA. They must analyze all COAs and modifications to current plans. They assess their sustainment feasibility, identify support requirements, and determine requirements for synchronization. The planners must visualize how the battle will unfold in order to determine critical requirements for each sustainment function.

6-17. Sustainment planners logically consider the requirements for each sustainment function before (prior to commitment), during (commitment to battle), and after (reconstitution and future missions). They analyze each COA or plan and consider:

- Type and duration of the operation.
- Task-organization, tasks, and sustainment requirements of subordinate forces.
- Ramifications of tactical operations such as tactical pauses, long movements, preparatory fires or defenses.
- Need for special equipment, supplies, or services.
- Requirements to separate, disassemble, reconfigure, uncrate, or transload supplies above normal requirements.
- Requirements for reconstitution.
- Required varieties and quantities of all classes of supplies, especially classes III, IV, V, and IX.
- Requirements for support of reconnaissance forces, security operations, or deception efforts.
- Need for classes IV and V obstacle material.
- Pre-positioned stockage requirements.
- Emergency resupply requirements.

6-18. The FSC commander and S-4's analysis also includes estimated attrition based on likely outcomes of subordinate missions. Analysis of estimated attrition primarily focuses on critical systems such as tanks, IFV's, and engineer systems. The S-1 assists by projecting potential personnel losses. To perform this analysis, the S-1 and S-4 use current unit personnel and equipment densities, standard planning factors, the sustainment COA planning function, historical data, or any combination of these. This projection helps the commander understand the potential losses and associated risks of each COA.

6-19. To understand the CAB's capabilities and determine support requirements, planners should apply a METT-TC analysis to the situation. The following are examples of general logistic considerations for tactical operations.

- Mission considerations include—
  - CAB mission and commander's intent.
  - Concept of the operations.
  - Higher headquarters' mission and concept of operation.
  - Higher headquarters' concept of support.
  - Type and duration of the operation.
  - Controlled supply rate.
  - Required supply rate.
- Enemy considerations include—
  - Enemy capabilities and tactics that could threaten logistic operations.
  - Enemy avenues of approach.
  - Enemy unconventional tactics that could threaten logistic operations.
  - Anticipated number of enemy prisoners of war.
- Troops and support available considerations include—
  - CAB task-organization to include supporting sustainment units and all attachments.
  - Location and condition of all units, including sustainment units.
  - Current and projected status of personnel, equipment, and classes of supply.
  - Availability and status of services.
  - Unit-level logistic capabilities.
- Terrain and weather considerations include—
  - Effects of weather and terrain on sustainment operations.
  - Additional sustainment requirements of the CAB due to weather and terrain.
  - Condition of infrastructure such as roads and bridges.

- Time available considerations include—
  - Impact on the ability to replenish supplies.
  - Planning and preparation time for sustainment units.
  - Impact of time on support requirements and distribution methods.
- Civil considerations include—
  - HN support and contract services.
  - Impact of dislocated civilian movement.
  - Potential for hostile reactions by civilians against sustainment operations.
  - U.S. (civilian) contractors on the battlefield.

ECHELON SUPPORT

6-20. How the CAB, including external and attached organizations and BSB, array in echelon varies widely based on METT-TC. Unit SOP should specify the required personnel, equipment and task for each sustainment node in order to effectively echelon support. In support of the CAB's concept of support, the FSC plans and synchronizes *echelon support*, which is the method of supporting an organization arrayed within an area of an operation (ATP 4-90). *Area support* is the method of logistics, medical support, and personnel services in which support relationships are determined by the location of the units requiring support. Sustainment units provide support to units located in or passing through their assigned areas (ATP 4-90). Current mission, task-organization, mission command, concept of support, capability and capacity, and terrain influence how support is echeloned.

ECHELON OF SUPPORT

6-21. Echeloning support within the CAB is a carefully planned and executed process. The method employed to echelon support is a deliberate, collaborative decision based upon a thorough mission analysis within the MDMP. During this analysis, there must be an understanding at all levels of the capabilities of the support organization within and supporting the CAB. As the CAB's primary sustainment organization, the FSC's organization facilitates echeloned support. Common echelon of support at the lowest level of sustainment is executed at the battalion and company echelons.

BATTALION ECHELONS

6-22. An FSC from the BSB supports the CAB. The CAB normally operates in echeloned trains where subordinate unit trains employ into multiple locations. The FSC performs the logistics function within the battalion echelon of support. Echeloned trains at the CAB can be organized into company trains, combat trains and field trains. CAB trains are used to array subordinate sustainment elements (unit personnel, vehicles, and equipment) including the FSC. The battalion commander and staff, and the FSC commander collaborate to determine the best method of employment commensurate with the CAB's concept of support. Echeloning of support can include the BAS, elements of the S-1 section and S-4 section, and elements of the FSC (see figure 6-2).

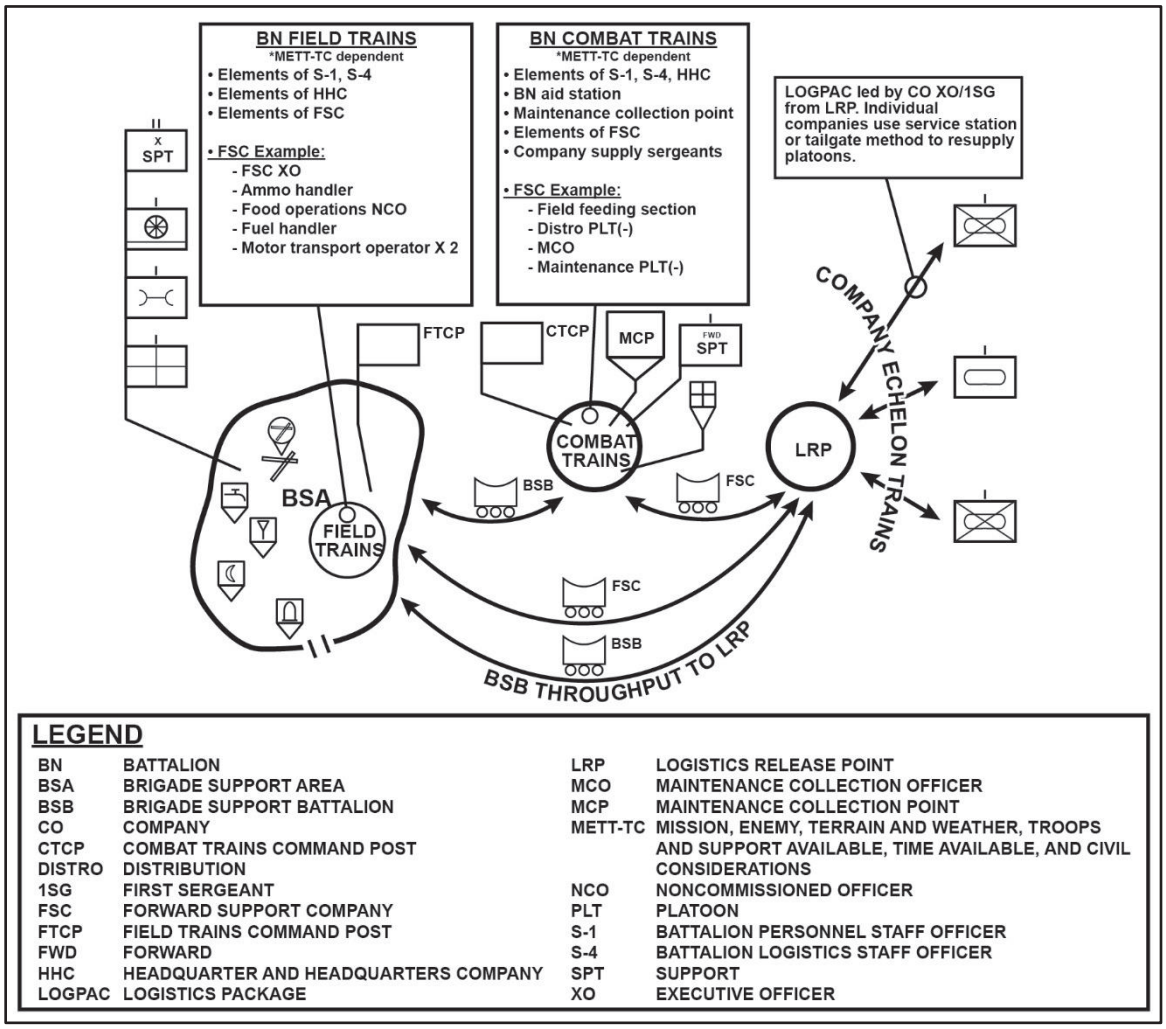


Figure 6-2. Echeloned support, example

Combat Trains

6-23. The purpose of the CTCP is to regenerate combat power and return it to the unit's fighting formations. CTCPs are positioned according to the METT-TC and must be small and agile and are typically collocated with the MCP and the Role 1 treatment facilities. All operations require the CTCP to coordinate sustainment in support of tactical operations by compiling the battalion LOGSTAT and transmitting it to the brigade S-4 and the BSB support operations officer to request resupply. During the fight, the CTCP regenerates combat power through the repair of damaged equipment and the treatment of casualties at the Role 1. As necessary, the CTCP coordinates the retrograde of equipment to the BSA and evacuation of casualties to the Role 2.

6-24. Combat trains usually consist of elements of the battalion S-1 section, S-4 section, and BAS, the MCP, and other selected elements of the FSC. Units consider the mission variables of METT-TC when locating combat trains in the CAB support area. Whenever possible, the combat trains are positioned outside the range of the enemy's mortar capabilities, while ensuring uninterrupted support to the CAB. The combat trains must be mobile enough to support frequent changes in location, time and terrain permitting, under the following conditions when—heavy use or traffic in the area may cause detection, the area becomes worn by heavy use such as in wet and muddy conditions, or security is compromised.

6-25. The MCP should be positioned where recovery vehicles have access or where major or difficult maintenance is performed. The MCP must maintain a current maintenance status on each of the companies'

equipment, especially on its vehicles in order to keep the commander apprised of its fighting capabilities. Like any other unit in the CAB, it prepares orders, tracks current operations with necessary overlays, and provides TACSOPs. The MCP is usually a very active with personnel and vehicles coming and going for repairs or resupply. The maintenance team must have a system to account for these personnel and vehicles at all times in order to move on order without losing any control of its assets.

Field Trains

6-26. The CAB normally task organizes a field trains element to provide a centralized location for controlling battalion sustainment support. The field trains consists of an FTCP, battalion sustainment personnel, battalion sustainment vehicles, and supporting FSC personnel located near the BSB headquarters. The FTCP serves as the battalion or squadron commander's primary direct coordination element with the supporting BSB in the BSA.

6-27. FTCP may also contain a CAB S-4 representative, S-1 representative, and supply sergeant or representative. Field trains provide direct coordination between the CAB and the BSB. The field trains are positioned based on mission variable considerations but are normally collocated on the BSB base. When organized, the field trains usually consist of the elements of the HHC and the battalion S-1 and S-4 sections and may include FSC elements not located in the combat trains. Field trains personnel help facilitate the coordination and movement of support from the BSB to the battalion. The battalion S-4 coordinates all unit supply requests with the ABCT S-4 and BSB. The BSB fills orders with on-hand-stocked items. Ideally the BSB executes through unit distribution to the FSC at the combat trains. However, METT-TC may dictate that the BSB conduct supply point distribution, and the FSC transport supplies forward from the BSA. A technique for FSC employment is to have the logistics team within the BSA to assist the BSB distribution company in configuring loads for the battalion based off the LOGSTAT.

6-28. Only a small number of FSC personnel work in the FTCP. Too many FSC personnel in the FTCP detracts from the FSC capability. Other FSC personnel may consist of the FSC XO and/or 1SG, and supply personnel. Their primary function is to communicate maneuver battalion support requirements to the BSB support operations officer and to coordinate for transportation to distribute supplies. The majority of the FSC support capability should remain in the combat trains, closer to the supported battalion when possible. The FTCP serves the following functions:

- Synchronizes and integrates the BCT sustainment concept of support.
- Coordinates logistics requirements with the BSB support operations section.
- Configures LOGPACs tailored to support requirements.
- Coordinates with the BCT for personnel services and replacement operations.
- Forecasts and coordinates future sustainment requirements.
- Coordinates retrograde of equipment.
- Coordinates retrograde of personnel including CASEVAC, personnel movement, and human remains.

Company Trains

6-29. The most immediate and reactive sustainment echelon to the changing battlefield environment is the company trains. The purpose of the company trains is to evacuate casualties and nonmission capable equipment from the company area to MCPs and to request and distribute company supplies. Company trains are located at least one terrain feature between it and the enemy, the company trains must be out of the enemy's direct fire weapons. The company trains perform five key functions:

- Resupply requests (via digital or analog LOGSTAT) through the CTCP.
- Repair and return of combat systems by the FMT to the maneuver companies.
- Resupply via LRP operations.
- Evacuation of casualties to Role 1.
- Evacuation of nonmission capable equipment to the MCP in the CTCP.

6-30. Company trains provide sustainment for a company during combat operations. Company trains usually include the 1SG, MEDEVAC teams, supply sergeant, and the armorer. Usually, the FSC provides an FMT,

with capabilities for maintenance, recovery, and limited combat spares. The supply sergeant can collocate in the combat trains, if it facilitates LOGPAC operations. The 1SG usually directs movement and employment of the company trains, although the company commander may assign the responsibility to the company XO. By placing at least one terrain feature between it and the enemy, the company trains will be out of range of the enemy's direct fire weapons.

SECURITY OF THE TRAINS

6-31. Sustainment elements behind the FLOT may form base clusters and must be prepared to defend against hostile or insurgent forces that have broken through or bypassed the defense. Generally, the HHC commander is responsible for trains' security when operating in a unit trains configuration. If the CAB commander locates the field trains with the BSA, the FSC commander coordinates with the BSB commander to integrate the field trains into the BSA defensive plan.

6-32. The HHC commander and S-4 should consider all the assets at their disposal to increase trains security to include vehicles receiving maintenance that are still capable of firing some or all of their weapon systems, available personnel, to include maintenance and crews and other attachments. A perimeter defense, to include EAs, is normally planned in all trains areas, and elements in the trains are assigned a specific sector to defend. Mutually supporting positions that dominate likely avenues of approach are selected for vehicles armed with heavy machine guns. Reaction forces and OPs are established based on the unit TACSOP. To enhance security, an alarm or warning system is arranged. Sector sketches, fire plans, and obstacle plans should be prepared. Rehearsals are conducted to ensure that all personnel know the part they play in the defensive scheme. The officer in charge at each location establishes a shift schedule for operations and security on a 24-hour basis.

MOVEMENT OF THE TRAINS

6-33. The movement of trains requires detailed planning and guidance, especially in the offense when forward trains are required to move with the fight to provide the maintenance support and combat power to maintain the momentum of the offensive operation. The battalion XO and S-4, in coordination with the FSC commander, plan locations and movement of the trains (or the FSC) to ensure responsive forward support. The displacement of the trains must be carefully coordinated with the concept of operations, locations of the BSA and MSRs, communication links, establishment of digital nodes, priorities of support, and time available for sustainment brigade throughputs and displacement. It is important for the CAB staff to understand the impact of BSB to FSC delivery schedules during the planning process. Movement of the trains or the FSC may severely constrain the maneuver commander's plan unless each echelon of sustainment is considered during the planned or emergency move.

6-34. During operations, not all maintenance can be conducted forward with the maneuver companies. Forward maintenance teams are limited on haul capacity to fix forward. During the planning process, it is imperative to determine when evacuation to the BSA is required. A solid trigger for that is an evacuation timeline with conditions that indicate that pushing a piece of equipment to the rear formations is advantageous. This timeline should be established by the brigade with input from the supporting elements. For example, it can determine that repairs requiring up to two hours are conducted at company trains, two- to six-hour repairs at the CAB MCP and any repairs requiring greater than six hours go to the field trains. In order to allow for the MCP to displace, if required by the tactical situation, it may be necessary to evacuate equipment to the BSB when the nonmission capable vehicles on hand at the MCP exceed the recovery capability of the FSC.

6-35. Sustainment planners should take into consideration that maintenance and recovery should not hinder a unit's ability to seize and exploit the initiative. Units may be required to leave catastrophic losses at an MCP for recovery later. The battalion S-4 would submit requests to the brigade S-4 and support operations officer for further coordination of additional recovery or haul assets. If a maintenance surge team is allocated to the CAB, the battalion S-3 and S-4 determine which company has priority for surge team support.

6-36. Conducting resupply by air is an alternative to delivering supplies. Normally resupply is conducted by moving equipment, supplies, and personnel around by trains or convoys. The combat trains normally establish a landing zone (LZ) for MEDEVAC and sling-load resupply of repair parts and other needed

supplies, as opposed to waiting for convoy resupply to deliver supplies. To do this, the S-4 must first carefully consider the road networks, traffic flow, choke points, and control problems to determine the best methods for resupply. (See ATP 4-48 for more information.)

6-37. In addition to conducting planned moves, both the combat trains and the field trains should have a TACSOP for conducting emergency moves. Emergency moves normally occur when the trains must relocate quickly to avoid a significant enemy threat. The CAB designates alternate trains' locations and movement routes. The CTCP, FTCP, and FSC commander disseminate emergency movement plans to all sustainment elements per the unit TACSOP. Leaders reconnoiter movement routes and alternate locations to ensure suitability. Emergency plans are rehearsed as time allows.

SUSTAINMENT REPORTING

6-38. Communications are critical to expedite the sustainment effort. Unit 1SGs or XOs must report their requirements and losses on the A&L net as soon as practical. When the use of the A&L net is not possible, LOGSTAT reports are sent via JBC-P or with resupply and evacuation vehicles. For redundancy, units must always exercise their PACE plan.

ADMINISTRATIVE AND LOGISTICS NET

6-39. The CTCP is the net control station for the CAB A&L net. The S-4, S-1, HHC commander, FSC commander, FSC platoon leaders, medical platoon leaders, company 1SGs, and FTCP operate in the A&L net. The CTCP also operates in the BCT A&L net and the CAB command net.

LOGISTICS STATUS REPORT

6-40. The LOGSTAT is an internal status report that identifies logistics requirements, provides visibility on critical shortages, allows commanders and staff to project mission capability, and informs the COP. Accurate reporting of the logistics and AHS support status is essential for keeping units combat ready.

6-41. LOGSTAT reporting begins at the lowest level. The company 1SG or XO compiles reports from subordinate elements and completes the unit's LOGSTAT report. Once completed, reports are forwarded from a unit to its higher headquarters and its supporting logistics headquarters, to include the FSC and the BSB. Normally LOGSTATs flow through S-4 channels. The BSB and its subordinate units report on-hand supplies and supply point quantities. The CAB staff has an interest in both reports, as does the supporting sustainment unit.

6-42. LOGSTATs should be completed at least daily (based off unit SOP), but may be required more frequently during periods of increased intensity or high operational tempo. As long as automation is available, LOGSTAT relayed via near real-time automation provides the commander with the most up-to-date information, ultimately improving the supporting unit's ability to anticipate requirements. (See figure 6-3a and figure 6-3b on page 6-12 for an example LOGSTAT report.) (See FM 4-0 for additional LOGSTAT information.)

Logistics Status Report (LOGSTAT)			
Unit:	A Co. 123rd AR BN	Date/Time:	151130MAY2021
Location:	Camp Smith	Headcount:	57

Line 1	Class I	Combat Load	On Hand	Next 24	Next 48	Next 72	Status %
	MRE (Case)	275	300	50	50	50	100%
	Water, Bulk (Gallons)	300	500	300	200	200	100%
	Ice (Bag)	250	150	125	125	125	60%
Line 2	**Class II**						
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Line 3	**Class III**						
	JP-8 (Gallons)	60K	55K	30K	35K	35K	91%
	FRH (Gallons)	500	600	250	300	500	100%
Line 4	**Class IV**						
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Line 5	**Class V**						
	120mm APFSDS-T	350	175	150	100	175	50%
	.50 cal AP	10K	8.5K	5K	2K	2K	85%
Line 6	**Class VI**						
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Line 7	**Class VII**						
	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Line 8	**Class VIII**						
	Tourniquet	180	75	30	50	0	41%
	Lactated Ringer IV	70	60	20	40	15	85%

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Figure 6-3a. Logistics status report, example

Logistics Status Report (LOGSTAT)

Unit:	A Co. 123rd AR BN	Date/Time:	151130MAY2021
Location:	Camp Smith	Headcount:	57

Line 9	**Class IX**						
	Track Pad	50	75	20	15	15	100%
	Road Wheel, Tank	30	25	8	8	8	83%
Line 10	**Class X**						
	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Additional Remarks: Request service station resupply on 17MAY21

Instructions:

Daily Suspense is: 1300Z

Submit To: CPT Brown, S4 OIC or SFC Davis S4 NCOIC

Legend:

AP	Armor Piercing	JP	Jet Propellant
APFSDS-T	Armor Piercing Fin Stabilized Discarding Sabot - Tracer	K	Thousand
AR	Armor	mm	Millimeter
BN	Battalion	MRE	Meal Ready to Eat
Cal	Caliber	N/A	Not Applicable
CO	Company	NCOIC	Noncommissioned Officer in Charge
CPT	Captain	OIC	Officer in Charge
DTG	Date Time Group	POC	Point of Contact
FRH	Fire Resistant Hydraulic	SFC	Sergeant First Class
IV	Intravenous	Z	Zulu

SAMPLE

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Figure 6-3b. Logistics status report (continued), example

LOGISTICS PACKAGE OPERATIONS

6-43. *Logistics packages* are a grouping of multiple classes of supply and supply vehicles under the control of a single convoy commander (FM 3-90-1). The FSC distribution platoon pushes the battalion-configured loads via LOGPAC to the maneuver companies based on the support plan. The BSB distribution company pushes LOGPACs to the companies by exception as necessary. Routine resupply, conducted ideally during hours of limited visibility, through LOGPACs cover all classes of supply, mail for the battalion, and any other requested items.

6-44. LOGPACs usually move forward daily for routine resupply and are the preferred method for the distribution of supplies. Tactical situations may require resupply outside of routine resupply. During the planning phase, the various resupply methods discussed later in this chapter should be taken into consideration and the most efficient resupply method should be used that best supports the battalion mission. The battalion, through planning, should refrain from assuming tactical risk with lower levels of classes I, III, and V for prolonged periods of time due to the nature and fluidity of battalion missions.

6-45. The S-4 should standardize a LOGPAC as much as possible while still providing troops with sufficient quantities of each supply item in anticipation of the battalion requirements. The S-4 and FSC commander must also plan and coordinate LOGPAC operations to ensure it fully supports the commander's tactical plan. The battalion commander's guidance on scarce and heavily requested items and accurate LOGSTAT reporting assists the S-4 in quickly forecasting supply constraints and submitting requisitions to alleviate projected shortages. The LOGSTAT will identify logistics requirements, provide visibility on critical shortages, and allow commanders and staff to project what needs to be included on the next LOGPAC push to the companies.

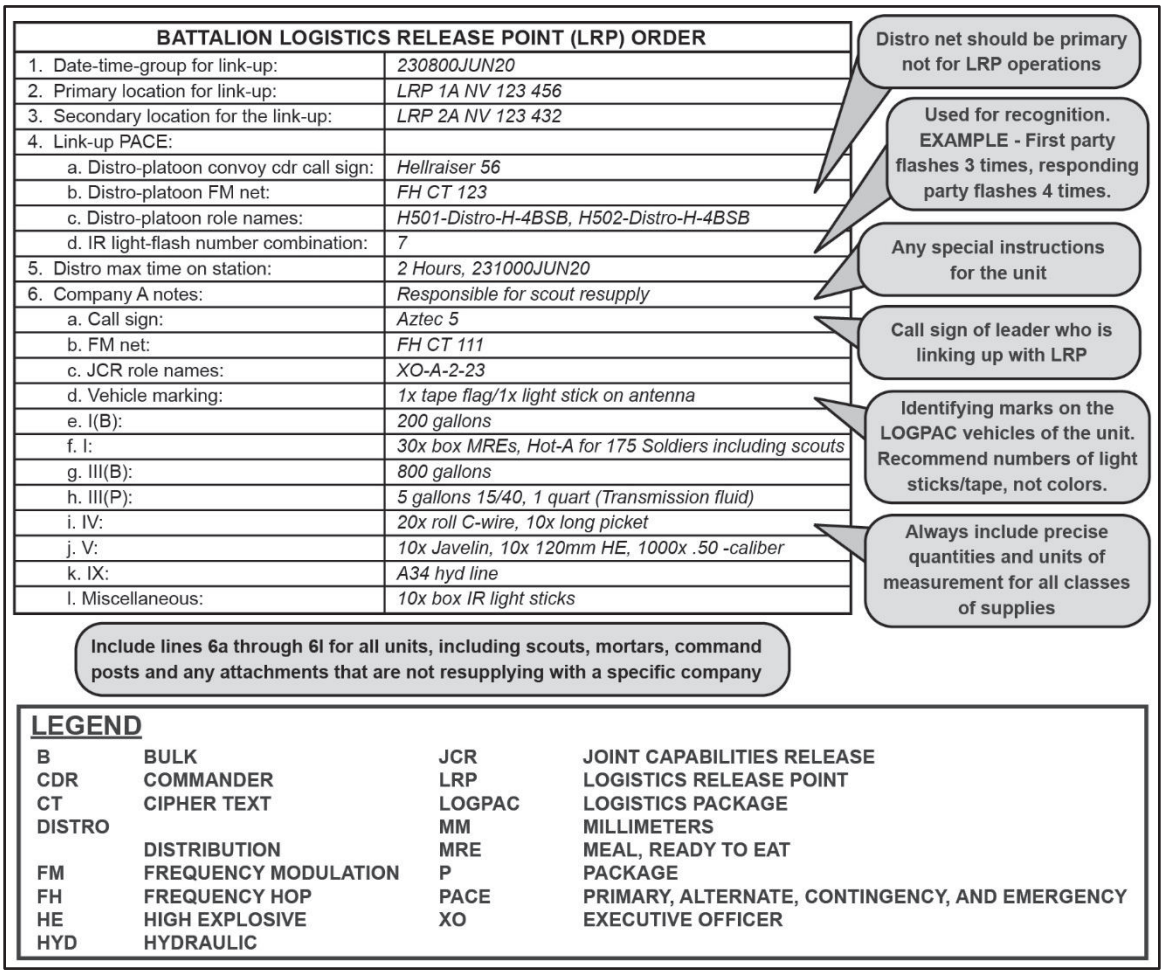
6-46. The LOGPACs are built based on battalion LOGSTAT reports. Normally, supply quantities are validated by the brigade S-4 in the sustainment synchronization meeting, and (depending on the concept of support), the BSB distribution company could build battalion-configured loads to push to the FTCP if located outside of the BSA or push to the combat trains if the field trains are located within the BSA. Once received, the FSC will breakdown the battalion-configured loads into company-configured loads and prepare for the next LOGPAC at the designated LRP. Depending on the mission, the BSB distribution company or the division sustainment support battalion can throughput directly to an LRP as required.

LOGISTICS RELEASE POINT

6-47. Efficient, rehearsed, and organized LRPs are the cornerstone of battalion logistics. A well-executed LRP allows the battalion to resupply all its formations quickly and allows the trains to resupply themselves quickly to set conditions for maximizing the battalion's operational reach. Poorly executed LRPs cause delays to maneuver operations, expose vulnerable logistics assets to enemy contact and can disrupt the entire battalion's resupply efforts.

6-48. An LRP is just a point on the ground where the battalion's dispersed elements linkup with its LOGPAC, conduct sustainment actions, receive and escort its LOGPAC to its company team trains and return to the LRP when complete. LRPs are a rehearsed battalion-level operation that is informed and planned by a deliberate MDMP.

6-49. A pre-LRP order is a critical step in synchronizing the battalion LRP operation. Ideally, the S-4 will receive LOGSTAT reports, analyze them and the battalion's operational COP, and then send out the pre-LRP order four to six hours before LRP link-up time. All subordinate units and CP in the battalion, to include attachments, receive the order and provide acknowledgement and confirmation or corrections as needed. (See figure 6-4 on page 6-14 for an example of information they may be required.)



BATTALION LOGISTICS RELEASE POINT (LRP) ORDER	
1. Date-time-group for link-up:	*230800JUN20*
2. Primary location for link-up:	*LRP 1A NV 123 456*
3. Secondary location for the link-up:	*LRP 2A NV 123 432*
4. Link-up PACE:	
a. Distro-platoon convoy cdr call sign:	*Hellraiser 56*
b. Distro-platoon FM net:	*FH CT 123*
c. Distro-platoon role names:	*H501-Distro-H-4BSB, H502-Distro-H-4BSB*
d. IR light-flash number combination:	*7*
5. Distro max time on station:	*2 Hours, 231000JUN20*
6. Company A notes:	*Responsible for scout resupply*
a. Call sign:	*Aztec 5*
b. FM net:	*FH CT 111*
c. JCR role names:	*XO-A-2-23*
d. Vehicle marking:	*1x tape flag/1x light stick on antenna*
e. I(B):	*200 gallons*
f. I:	*30x box MREs, Hot-A for 175 Soldiers including scouts*
g. III(B):	*800 gallons*
h. III(P):	*5 gallons 15/40, 1 quart (Transmission fluid)*
i. IV:	*20x roll C-wire, 10x long picket*
j. V:	*10x Javelin, 10x 120mm HE, 1000x .50 -caliber*
k. IX:	*A34 hyd line*
l. Miscellaneous:	*10x box IR light sticks*

Figure 6-4. Pre-logistics release point order, example

6-50. LRP locations are determined by the S-4 based on the tactical situation. They should be well forward and easily located. LRPs, as well as the MSR, combat trains, field trains, and BSA locations are included on the operations overlay and discussed during the sustainment rehearsal. The CTCP notifies subordinates and the FTCP well in advance which LRPs will be used. The battalion TACSOP will discuss actions at the LRP and the time spent at each LRP. The S-4 determines the LOGPAC schedule and notifies units accordingly. LOGPACs may be scheduled to arrive shortly after arrival at a battle position or intermediate objective. Subordinates must ensure that the resupply vehicles are returned to the LRP as soon as possible so that the vehicles can return to the field trains and begin preparation for the next mission.

6-51. At least one senior representative from the CTCP (S-4, S-1, or senior NCO) and the battalion CSM should be present at the LRP while it is in effect. Their purpose is to meet with the unit 1SGs for coordination of logistical requirements and to ensure that the LOGPAC release and return takes place efficiently. A brief meeting is normally held immediately before the 1SG picks up the LOGPAC. Coordination may include—

- Changes in logistical requirements reflecting any last-minute task-organization.
- Reports on personnel, logistics, and maintenance from the companies.
- Confirmation of receipt of digital logistics situation reports (if equipped with digital C2 systems).
- Firsthand updates on the tactical situation and LOGSTAT.

6-52. Resupply of the scout and mortar platoons, the main CP, combat trains, and attached support units must be planned and coordinated. The HHC 1SG coordinates and supervises resupply of these elements.

Generally, the HHC 1SG operates out of the combat trains. The platoon sergeant of these elements or senior NCO at a facility must report their requirements to the HHC 1SG or to the CTCP.

6-53. The most desirable method of resupply is to form small LOGPACs for these elements, which the platoon sergeant picks up at the LRP in the same manner as a company 1SG. In some cases, the HHC 1SG delivers the LOGPAC to the main CP, combat trains, and scout and mortar platoons. Attachments can receive resupply at one of these locations or as previously coordinated. Another option is for attachments to be resupplied from a nearby company LOGPAC. The S-4 coordinates this resupply before the LOGPACs are dispatched.

6-54. Resupply operations for the scout platoon pose several unique challenges. Special procedures may be necessary to resupply the scout platoon, to include—

- Resupplying the platoon by having each vehicle individually pull off line and move to a resupply site. This is also known as the service station method. (See ATP 3-90.1 for more information.) This method may be feasible when the platoon is performing security for a stationary force.
- Resupplying the platoon near the combat trains as the platoon repositions between missions. This is also known as the distribution point method.
- Designating one class III vehicle in the combat trains to fuel the platoon on short notice. This method is also known as the tailgate method. The tailgate method is where the fuel truck goes to the customer instead of the customer coming to the fuel truck.

6-55. While the LOGPACs are the preferred methods of resupply, there will be times when other methods of resupply are required:

- Resupply from the combat trains (emergency resupply). The combat trains have a limited amount of classes III and V for emergency resupply. The S-4 coordinates emergency resupply from the combat trains and then refills or replaces the combat trains' assets.
- Prestocking is the placing and concealing of supplies on the battlefield. This is normally done during defensive operations when supplies are placed in subsequent battle positions. These prestocked supplies are sometimes called a cache.
- Mobile prepositioning is similar to prestocking except that the supplies remain on the truck, which is positioned forward on the battlefield.

6-56. The CAB and supporting FSC are 100-percent mobile with their organic vehicles and trailers. The FSC has the capability to carry one combat load for the supported battalion. If the FSC's assets are committed, the S-4 could request transportation assets from higher headquarters.

BATTALION REFUEL ON THE MOVE

6-57. When the entire battalion needs to resupply quickly, usually during a long movement or to transition from one operation to another, a refuel on the move or battalion supply point of some type is the fastest method. Like any other operation, a refuel on the move requires more detailed planning and preparation. Planning considerations must include security, far and near, an established order of march, guidance on fuel-nozzle time per vehicle, tactical dispersion between fuel trucks, and clearly marked lanes.

6-58. Figure 6-5 on page 6-16 is a sample battalion refuel on the move order format that can be used when planning a refuel on the move and coordinating an entire battalion through it. (See ATP 4-43 for more planning considerations when executing a refuel on the move.)

BATTALION REFUEL ON THE MOVE (ROM) ORDER	
1. Order of march	*Scouts, Company B, Company A, Company C, mortars, main command post*
2. Nozzle time per vehicle	*4 minutes*
3. ROM entry-point grid	*NV 1234 5578*
4. ROM beachmaster call sign	*Hellraiser 57*
5. ROM beachmaster FM net	*FH CT 123*
6. ROM beachmaster role name	*H502-Distro-H-485B*
7. Pre-ROM TAA instructions	*Company A NV 1243 5370 oriented NW; Company B NV 1245 5365 oriented NE*
8. Post-ROM TAA instructions	*Company TAA at NV 121 567, move to objective once consolidated*
9. Security platoon	*1/Company C until complete, then fuel and join company*
10. Lane marking	*Left to right, #1 - #8, picket with VS-17 panel and # of light sticks*
11. Additional supplies guidance	*Class V Javelin available, 200 meters past ROM lane, NV 1236 5679*
12. ROM instructions	*Contact beachmaster, take commands from them before entering*

LEGEND

CT	CIPHER TEXT	NE	NORTHEAST
FM	FREQUENCY MODULATION	NW	NORTHWEST
FH	FREQUENCY HOP	TAA	TACTICAL ASSEMBLY AREA

Figure 6-5. Battalion refuel on the move order

6-59. Aerial delivery is also used as a method of resupply. See chapter 8 in this publication for more details on aerial delivery of resupply. When employing aerial delivery, the ABCT should consider the following:

- The use of aerial delivery requires the coordination of the CAB staff and the ABCT S-3, S-4, and air defense airspace management (ADAM) or brigade aviation element (BAE) sections. Special focus must be placed on the enemy air defense capability.
- The FSC must be prepared to receive and package bulk supplies by sling-load operations or joint precision airdrop system. To conduct these operations, sling-load trained personnel are required in the FSC's distribution platoon.

6-60. All companies must know how to select a LZ or drop zone to receive aerial resupply. The delivered supplies are immediately transported away from the LZ or drop zone.

SECTION II – MAINTENANCE

6-61. The Army has two levels of maintenance: field and sustainment. Field maintenance consists primarily of troubleshooting, repairing, or replacing parts and assemblies on the user's system or platform. It is the product of merging the previous organizational and direct support levels of maintenance together. Within the CAB, field-level maintainers are concentrated in the FSC. Field maintenance is also done in the battalion S-6 sections for network and signal equipment. Sustainment maintenance includes repairing components major assemblies off the user's system or platform and overhauling major end-items to the national standard. Sustainment-level maintenance returns the products to the national supply system. COMSEC equipment is evacuated through maintenance channels from the unit to the first supporting maintenance unit to complete a total supply transaction and return a serviceable device to the user. The repair of COMSEC material is performed at sustainment level only.

6-62. *Field maintenance* is on system maintenance, repair and return to the user including maintenance actions performed by operators (FM 4-30). It covers tasks previously assigned to operator or crew, organization or unit, and direct support maintenance levels. It includes some off-system maintenance critical to mission readiness.

6-63. Company commanders ensure that vehicle crews and equipment operators perform preventive maintenance checks and services. To provide quick turnaround of maintenance problems, each maneuver company has FMTs from the supporting FSC dedicated to support them. These FMTs have forward repair systems and mechanics trained in the company's equipment. The company 1SG usually positions the FMT in the company trains. (See ATP 4-90 for more information.)

6-64. The FSC performs field-level maintenance. The FSC has a maintenance platoon that repairs automotive, armament, ground support, electronic, and missile equipment. The FSC focuses on line-replaceable units and component replacements, using combat spares from the prescribed load list and shop stock. It has a service and recovery section and also performs battle damage assessment and repair (known as BDAR). The FSC's maintenance control section uses GCSS-Army to order repair parts. The FSC commander establishes MCPs in coordination with the CAB XO or S-4. These MCPs are generally in the combat trains.

6-65. The BSB's field maintenance company provides limited backup support to FSCs. It also serves as the maintenance point for low-density equipment. When required, the BSB dispatches FMTs to perform on-site diagnoses, make minor adjustments, and conduct repairs.

6-66. A maintenance surge team may be requested to provide additional field maintenance support to major weapon systems: M1 and M2/3systems. The battalion S-4 recommends the requisition of a maintenance surge team based on the CAB's current equipment readiness posture. The surge team should be allocated to the main effort company or to the company with the lowest equipment readiness status.

BATTLE DAMAGE ASSESSMENT AND REPAIR

6-67. BDAR is the procedure used to rapidly return disabled equipment to the operational commander by field expedient repair of components. BDAR restores the minimum essential combat capabilities necessary to support a specific combat mission or to enable the equipment to self-recover. BDAR is accomplished by—

- Bypassing components or safety devices.
- Relocating parts from like or lower priority systems on the equipment.
- Fabricating repair parts.
- Implementing a temporary repair.
- Using substitute fluids, materials, or components.

6-68. Based on the unit's SOPs and at the commander's discretion, anyone can perform BDAR depending on the extent of repairs required and METT-TC conditions. The commander decides whether or not to use BDAR instead of standard maintenance procedures. Expedient repairs may or may not return the vehicle to a fully mission-capable status. At the completion of immediate combat operations, qualified maintenance personnel will make repairs to restore the equipment to fully mission-capable 10/20 maintenance standards. (See AR 750-1 for BDAR regulatory guidance.)

RECOVERY AND EVACUATION

6-69. FSCs are responsible for recovering their own damaged equipment and the equipment within the CAB itself. If the vehicle is repairable, the company recovers it and transports it to the MCP or to the nearest MSR, depending on what is specified in the TACSOP or the OPORD. The use of digital systems enables recovery vehicles to identify the exact location of the inoperable piece of equipment. When the decision is made to repair the equipment at the BSA, either recovery or evacuation is used. If FSC recovery assets are overextended, recovery support can be coordinated with the BSB to prevent excessive repair delays. Equipment that cannot be repaired at the BSA usually is evacuated to sustainment brigade units.

CONTROLLED EXCHANGE

6-70. Controlled exchange is the removal of serviceable parts from an item of not mission capable equipment to install on another piece of equipment that can be rendered mission capable more quickly or easily. Controlled exchange is approved by the CAB commander of the owning equipment.

RESUPPLY

6-71. The FSC has combat spares or shop stock to support maintenance of vehicles, generators, and other equipment. Combat spares are a combination of on-board spares, shop stock, bench stock, and combat repair stock. Combat spares are issued based on the commander's priority and authorization. The FSC may allocate combat spares to FMTs, depending on the METT-TC. The FMTs replenish combat spares using GCSS-Army

through the FSC. The company supply sergeant and communications personnel also order parts as needed through the FSC.

COMMUNICATIONS SECURITY MAINTENANCE

6-72. COMSEC equipment is evacuated through maintenance channels from the unit to the first supporting maintenance unit to complete a total supply transaction and return a serviceable device to the user. The repair of COMSEC material is performed at sustainment level only.

SECTION III – ARMY HEALTH SYSTEM SUPPORT

6-73. HSS is arranged in progressive numeric roles of medical care. These roles begin at the point of injury with Role 1 medical care and progress to the continental U.S. support base. Each role reflects an increase in capability, with the functions of each lower role being within the capabilities of the higher role.

6-74. Roles 1 and 2 medical care are described below. Role 3 medical care is provided by hospital centers and combat support hospitals located in the AO. Role 4 medical care is located in overseas and continental U.S. support base hospitals and other safe havens. Mobilization requires expansion of military hospital capacities and the inclusion of Department of Veterans Affairs and civilian hospital beds in the National Disaster Medical System to meet the increased demands created by the evacuation of patients from the AO. The support-base hospitals represent the most definitive medical care available within the AHS.

ROLE 1 MEDICAL SUPPORT

6-75. Self-aid/buddy aid and CSLs utilizing TCCC is the first medical care a Soldier receives. Combat medics provide Role 1 services to their patients. It continues at the BAS with treatment from the physician and physician assistant. Role 1 care includes combat and operational stress preventive measures immediate lifesaving measures, patient collection, and MEDEVAC to higher roles of care at supporting medical treatment facilities (MTFs).

COMBAT LIFESAVERS

6-76. Self-aid or buddy aid is crucial to HSS. Either the wounded/injured Soldier or a fellow Soldier is usually the first person on the scene of a medical emergency, and provides the first casualty response to wounded and injured personnel. The vehicle commander is responsible for ensuring that injured crewmen receive immediate first aid, and that the commander is informed of casualties. The vehicle commander coordinates with the 1SG and company senior medic for ground evacuation.

6-77. The CLS is a nonmedical Soldier who has received additional training in order to provide TCCC and lifesaving procedures, beyond the level of self-aid or buddy aid. The CLS is not intended to take the place of medical personnel, but to slow deterioration of a wounded Soldier's condition until medical personnel arrive. Each squad, crew, or equivalent-sized deployable unit has at least one Soldier trained and certified as a CLS.

BATTALION AID STATION

6-78. The medical platoon is the focal point of HSS/FHP for the CAB. It is organized to support the battalion CPs and companies; acquire, treat, evacuate casualties; and coordinate further evacuation as necessary. This platoon establishes a treatment point at the BAS. The medical platoon provides trained personnel to stabilize patients for further evacuation, provide emergency lifesaving and limb-saving treatment, and treat minor wounds or illness for return to duty. (See ATP 4-02.3 for more information.)

6-79. Resupply of medical supplies is through medical channels. Medical personnel are responsible for maintaining their medical equipment sets. CLS and company or platoon medics receive replenishment for their aid bags from the medical platoon. To prevent unnecessary depletion of blankets, litters, splints, and other medical equipment, the receiving medical facility exchanges similar properties with the BAS when it accompanies the patient. (See ATP 4-02.1 for more information.)

MEDICAL EVACUATION

6-80. Evacuation of injured Soldiers is categorized into two types:

- MEDEVAC is the use of ground or air ambulances to evacuate from the point of injury to MTFs while providing en route care.
- CASEVAC is the use of nonmedical vehicles or other means for patient movement without providing en route care.

Note. Refer to ATP 4-02.2 and ATP 4-02.3 for critical considerations when utilizing CASEVAC.

6-81. The MEDEVAC plan is the key to the HSS plan. The medical platoon is responsible for MEDEVAC of casualties from the point of injury to the BAS. The CAB S-1 or S-4, surgeon, and medical platoon leader must ensure there is a coordinated MEDEVAC plan from all battalion locations to the BAS and to the BSMC in the BSA. The BCT surgeon section coordinates the MEDEVAC plans of all BCT medical platoons and the BSMC. The CAB S-4, ABCT S-4, and medical operations officer coordinate AXP locations and post them on the support graphics in digital systems. The CAB S-4 and medical operations officer also coordinate any available nonstandard ambulance support from within the battalion. Normally, company commanders or XOs, in close coordination with unit 1SGs and medic, execute the company CASEVAC mission at the point of injury, AXP, casualty collection point, or company trains. The S-4 and surgeon identify and position internal vehicles as required for mass CASEVAC. The CAB S-4 and medical operations officer track active and inactive AXPs and disseminate that information to battalion CPs and companies.

6-82. CAB medical platoons generally attach ground ambulances to companies in anticipation of casualties. The BSMC ambulance teams evacuate patients from the BAS back to the Role 2 MTF/BSMC located in the BSA. Pre-positioning BSMC ambulance teams with the supported CAB's BAS reduces ambulance turnaround times. The BCT surgeon, in coordination with the BAE and the BCT S-4, plans the landing sites for aerial evacuation. BCT MEDEVAC plans and exercises should include the use of aerial evacuation (when available) to transport litter-urgent patients.

6-83. As casualties occur, the CAB S-4 directs assets to assist with CASEVAC. MEDEVAC outside the battalion can be accomplished by ground or air means. Recovery responsibility does not end until casualties are evacuated back to its Role 1 MTF or BAS. Responsibility for further evacuation from the BAS is the mission of the BSMC ground ambulances or supporting air ambulance. Casualties can be evacuated to the Role 2 MTF/BSMC in the BSA or other supporting MTFs. Medical patients are evacuated no further to the rear than their condition requires and return to duty as soon as possible.

6-84. The fastest method of MEDEVAC is by air ambulance, but air ambulance use is METT-TC dependent. The combat aviation brigade may position a forward support MEDEVAC platoon usually consisting of three HH-60 Blackhawk aircraft in support of the BCT. The forward support MEDEVAC team is normally located in the BSA or with other aviation elements located in the brigade AO. The forward support MEDEVAC team provides area support to the BCT and other units operating in the BCT AO. The BAE and BCT surgeon coordinate the use and positioning of the forward support MEDEVAC team. They integrate air ambulance support to include coordination of airspace C2 requirements, establishing clear lines of authority to launch a MEDEVAC and identification of pickup zones (PZs) and LZs.

6-85. Planners must anticipate the potential for high casualty rates and long evacuation distances. They identify and coordinate AXPs along the axis of advance and on the objective. Planners must identify the AXP locations for all phases of the operation; they must also identify triggers developed for AXP's displacement to their next locations. Planners must retain the flexibility to shift nonstandard evacuation assets to support mass casualty or CASEVAC as required. (See ATP 4-02.2 for more information.)

MEDICAL REPORTING

6-86. Medical communications for combat casualty care (known as MC4) and theater medical information program (TMIP) support the information management requirements for the CAB medical platoon. The CTCP uses digital systems and MC4-TMIP to support medical planning, coordination of orders and subordinate

tasks, and to monitor and ensure execution throughout the mission. Medical reporting includes disease and nonbattle injury reports, environmental and occupational health surveillance, and lost duty days.

6-87. The MC4-TMIP is an automated system, which links health care providers and medical support providers, at all roles of care, with integrated medical information. The MC4-TMIP receives, stores, processes, transmits, and reports medical mission command, medical surveillance, casualty movement or tracking, medical treatment, medical situational awareness, and medical logistics data across all roles of care. MC4-TMIP is capable of using the same combat service and support very small aperture terminal network for data transmission as the automated supply and maintenance systems.

ROLE 2 MEDICAL SUPPORT

6-88. Medical companies provide Role 2 care. They examine and evaluate the casualty's wounds and general status to determine treatment and evacuation priorities. Role 2 care duplicates all the capabilities of Role 1, but Role 2 MTFs provide a greater capability to resuscitate trauma patients than is available at Role 1. Those patients who can return to duty within 72 hours (1 to 3 days) are held for treatment. When required to provide far-forward surgical intervention, a forward resuscitative and surgical detachment may augment the medical company to provide initial wound surgery.

BRIGADE SUPPORT MEDICAL COMPANY

6-89. CAB Soldiers do not usually use HN or other non-U.S. medical facilities except for emergency medical treatment or for medical or surgical specialty consultation when a medical specialist, such as a neurosurgeon, is not readily available. The BSMC examines and evaluates a casualty's wounds and general physical condition to determine treatment and evacuation priorities. This role of care contains Role 1 capabilities and expands to Role 2 care with the following available services by adding operational dental, laboratory, radiology, operational public health, medical logistics and blood management, combat and operational stress control, and patient-holding capabilities. A forward resuscitative and surgical detachment may augment the BSMC as necessary to provide surgical resuscitation, stabilization, and initial wound surgery. The BSMC has a brigade medical supply office that serves as a forward distribution point for class VIII and synchronizes medical logistics support for medical equipment and its maintenance within the BCT. (See FM 4-02, ATP 4-02.3, ATP 4-02.8, and ATP 4-90 for more information.)

FORCE HEALTH PROTECTION

6-90. FHP encompasses measures to promote, improve, conserve, or restore the mental or physical well-being of Soldiers. These measures enable a healthy and fit force, prevent injury and illness, and protect the force from health hazards. These measures also include the prevention aspects of a number of Army Medicine functions (PVNTMED, including medical surveillance and occupational and environmental health surveillance; veterinary services, including the food inspection and animal care missions; combat and operational stress control; dental services [preventive dentistry]; and laboratory services [area medical laboratory support]). (See FM 4-02 and ATP 4-02.8 for more information.)

PREVENTIVE MEDICINE PERSONNEL AND SERVICES

6-91. Operational public health support is provided by PVNTMED personnel who are organic to the BSMC. PVNTMED personnel who are organic to the BSMC provide operational public health support. This BSMC PVNTMED section is equipped to conduct operational public health surveillance and control. Level II operational tasks include but are not limited to—

- Preparing a running estimate to identify the health threat in the BCTs AO. Preparations should include acquiring past after-action reports and data from higher headquarters, U.S. Army Public Health Center, and the National Center for Medical Intelligence.
- Advising the commander on impacts of the health threat to the forces and providing recommended techniques and procedures to defeat or minimize the health threat.
- Preparing essential operational public health information for inclusion into the operation plan, OPORD, and briefings to ensure awareness of the health threat and the corresponding operational public health measures.

- Performing sanitary inspections of supported units' food service, field site, latrine, bathing, and other sanitation facilities.
- Performing sanitary inspections and providing operational public health recommendations for detainee facilities. (See ATP 4-02.46 for additional information on medical support to detainee operations.)
- Providing early warning of any breakdown in basic sanitation practices so that corrective action may be conducted before diseases are transmitted.
- Providing early detection and warning of potential disease epidemics or suspected biological warfare agent employment within the BCT AO.
- Providing limited pest management services and vector surveillance to supported units.
- Monitoring field water supplies, to include possible CBRN and toxic industrial material contamination.
- Collecting environmental samples from suspected CBRN or toxic industrial material contaminated sources.
- Preparing samples for submission to supporting laboratories for analysis.
- Providing input and recommendations to contracting services to ensure PVNTMED requirements are adequately addressed.
- Preparing chain of custody documents and ensuring that the samples are not contaminated from 39 sources outside the sampled site.
- Providing staff oversight of and assisting in the training in the proper use of PVNTMED measures.

Combat and Operational Stress Control

6-92. Provides direct support combat and operational stress control prevention and treatment services for BCT mental health sections, division or corps and theater army, and joint or combined forces on an area basis. Combat and operational stress control prevents, identifies, and manages adverse combat and operational stress reactions in supported units. Combat and operational stress control optimizes mission performance, conserves the fighting strength, and prevents or minimizes adverse effects of combat and operational stress reactions on Soldiers and their physical, psychological, intellectual, and social health. Its goal is to return Soldiers to duty expeditiously. Combat and operational stress control activities include routine screening of individuals when recruited; continued surveillance throughout military service, especially before, during, and after deployment; and continual assessment and consultation with medical and other personnel from garrison to the battlefield. (See ATP 6-22.5 for more information.)

CAB Force Health Protection Program

6-93. The CAB commander and all leaders, in conjunction with the company commanders, combat medic, and field sanitation teams, emphasize and enforce high standards of health and hygiene at all times. A proactive FHP program implemented at the battalion and company levels should include personal health and hygiene, operational public health, preventive dentistry, combat and operational stress control, food safety, and awareness of potential health threats. CAB leaders and members must be informed on operational public health measures to counter health threats and to maintain their health and overall fitness to perform their mission.

SECTION IV – HUMAN RESOURCES SUPPORT

6-94. The S-1 section provides the CAB with an organic element for the planning, integration, coordination, and delivery of HR support for the CAB. (See FM 1-0 and ATP 1-0.1 for more information.) The S-1 provides HR support in the following areas:

- Essential personnel services.
- HR planning and operations.
- Unit mailroom operations.
- Personnel information management.
- PRM.

- PASR.
- Casualty operations.

ESSENTIAL PERSONNEL SERVICES

6-95. The CAB S-1 section performs essential personnel services to provide timely and accurate personnel services that efficiently update Soldier status, readiness, and quality of life and allow Army leadership to effectively manage the force. Essential personnel services include: processing awards and decorations, evaluations, transfers, leaves and passes, managing promotions (to include semi-centralized NCO promotions), personnel actions (for example, requests for special training, education, and reclassification), processing congressional and special inquiries, and processing line of duty investigations.

HUMAN RESOURCES PLANNING AND OPERATIONS

6-96. HR planning and operations are the means by which the CAB envisions a desired HR end state in support of the commander's mission requirements. The S-1 tracks current and near-term (future) execution of the planned HR support to ensure effective support. The S-1, as a coordinating staff officer, integrates continuous HR planning into the CAB's decision-making process. HR planning information includes—

- Task-organization.
- Projected changes to task-organization during conduct of the operation (for example, by phase).
- Updated and projected PASR data during the operation.
- Updated loss projections (casualty estimates).
- Key position shortages and loss predictions.
- Replacement policies, availability, and flow.
- Theater evacuation policy.
- Manning priorities (priority of fill).
- Crew or key leader reconstitution planning.
- Casualty reporting scheme.
- Location of medical facilities, evacuation assets, and HR squads performing a casualty reporting mission.
- Rest and Recuperation and leave policy and projections during the operation.
- Wartime theater awards policy (as impacted by task-organization).
- Location of supporting HR organizations.
- Location and amount of secure or nonsecure connectivity and bandwidth.

UNIT MAILROOM OPERATIONS

6-97. The CAB S-1 section is responsible for the development and coordination of the CAB unit mailroom operations plan. The S-1 coordinates external postal support with the BCT S-1 and the HR company (postal). Normally, Soldier mail will arrive at the BSA already sorted by unit (for example, four-digit zip code extensions). Then the mail either is picked up by the designated battalion mail clerk or is sent forward to the combat trains. Outgoing mail is exchanged at the same time. The battalion mail clerk receives and distributes the mail to the company mail clerk who ensures it is delivered to the Soldier.

PERSONNEL INFORMATION MANAGEMENT

6-98. Personnel information management compasses, collecting, processing, storing, displaying, reconciling, and disseminating critical HR information about units and Soldiers. It supports the execution of all other HR functions. HR systems facilitate the rapid, self-service access of Soldier data, and when properly integrated to other HR systems, facilitates near real-time data updates. However, the CAB S-1 section will still need to perform data inputs to HR systems. Effective personnel information management is critical to enable timely PRM which maintains unit personnel combat power. The CAB S-1 exercises personnel information management through—

- Updating strength-related information in HR systems and databases.
- Managing personnel information on assigned or attached personnel.
- Maintaining personnel files in accordance with regulations and policies.

PERSONNEL READINESS MANAGEMENT

6-99. PRM distributes Soldiers to CAB units based on documented authorizations, commanders' priorities, and anticipated mission needs; thus, providing the manpower needed to support CAB operations. Several significant manning processes encompass PRM, such as individual Soldier readiness (in terms of deployability), strength management and strength distribution, and replacement operations. CAB S-1 responsibilities for PRM include—

- Monitor and report personnel readiness status of subordinate units (to include key leaders, combat squads, and teams).
- Predict personnel requirements based on current strength levels, projected gains, estimated losses, and number of individuals returning to duty from medical facilities.
- Advise the CAB commander on current and projected personnel readiness status.

PERSONNEL ACCOUNTING AND STRENGTH REPORTING

6-100. PASR is the process used to provide personnel strength information critical to commanders, HR providers, and the PRM system. Personnel accounting is the process of recording by-name data on Soldiers, DOD and DA Civilians as they arrive and depart units, and management of the location and duty status of every person assigned or attached to a unit. Strength reporting is the numerical end product of the personnel accounting process. Company 1SGs are critical participants in this process. The S-1 section must be very sensitive to the accuracy and timeliness of all personnel accounting reports, paying special attention to Soldiers who have changed status in the medical treatment process and task-organization changes. Timely data input through the electronic Military Personnel Office and Deployed Theater Accountability System is the method for reporting shortages. In the event the Deployed Theater Accountability System is not available (due to lack of bandwidth, degraded communications or other issues), manual reports can be used such as the personnel status, personnel summary, and personnel requirements report. CAB S-1 PASR responsibilities include—

- Collect, summarize, analyze, update and report by-name personnel strength information using the directed secure or nonsecure HR enabling systems (duty status changes).
- Maintain personnel information via Deployed Theater Accountability System and electronic Military Personnel Office.
- Reconcile manual strength information with automated strength information systems.
- Submit personnel status reports to BCT S-1.
- Coordinate with appropriate agencies for information on casualties, patient tracking, and stragglers.
- Coordinate for connectivity for secure and nonsecure voice and data systems.
- Ensure S-1 section members have appropriate security clearances and access to the appropriate HR systems.

HUMAN RESOURCES SUPPORT TO CASUALTY OPERATIONS

6-101. HR support to casualty operations includes collecting, recording, reporting, verifying, and the processing of casualty information from unit level to Headquarters, Department of the Army normally within 12 hours of incident. The recorded information facilitates next of kin notification, casualty assistance, casualty tracking and status updates, and provides the basis for historical and statistical reports. Holistic casualty operations involve a wider array of missions and organizations to oversee things like line of duty determinations, disposition of remains and personal effects (a responsibility of the mortuary affairs organization of the supporting sustainment command), military funeral honors, and casualty mail coordination.

UNIT REPORTING

6-102. As casualties occur, the nearest observer informs the company 1SG via the most expedient method available (for example, free text within a digital C2 platform, voice radio) per unit TACSOP. The 1SG uses a digital C2 platform to submit a personnel situation report, which documents duty status changes on all casualties. A digital C2 platform sends these reports directly to the CTCP. Casualties are taken to casualty collection points for classification of injury type (routine, urgent, return to duty), evacuation, and integration into the medical treatment system. The 1SG ensures completed DA Form 1156s (*Casualty Feeder Card*) are forwarded to the CAB S-1 for processing to the BCT S-1. The CAB S-1 submits the casualty report using either the Nonsecure Internet Protocol Router Network (NIPRNET) web-based Defense Casualty Information Processing System (known as DCIPS), or, when NIPRNET is not practical, completes the casualty report(s) using the DCIPS import spreadsheet template. The report is then reviewed by the BCT S-1 who verifies the information and forwards the report to the corps and division assistant chief of staff, personnel (G-1)/adjutant general or deployed theater Casualty Assistance Center using DCIPS (or other means available when DCIPS is not available).

6-103. The S-1 ensures the accuracy of the data in DCIPS to, ensure accurate and timely notification of the Soldier's next of kin. The CAB S-1 must establish procedures to ensure personnel attached and augmented to the battalion are accurately reported, and that each Soldier is reported only once.

6-104. Commanders and 1SGs must establish procedures to ensure that the Soldier's next of kin are notified properly and according to procedure. The proliferation of personal communications (for example, cell phones and computers) in proximity to the battlefield enables nearly all Soldiers to contact their home station. The next of kin for Soldiers wounded or killed in action should not receive notification through unofficial means.

PERSONNEL ACCOUNTING

6-105. When a Soldier becomes a casualty, the unit medic from the medical platoon records medical treatment on the Soldier's DD Form 1380 (*Tactical Combat Casualty Care [TCCC] Card*). The BAS and BSMC read the Soldier's DD Form 1380 when they treat the Soldier. The CAB S-1 should electronically receive a notification message to update the Soldier's patient tracking status. In this manner, a casualty's location can be determined and Soldiers properly accounted for. If the electronic system does not work, the S-1 should plan to have a representative at the BAS. This is a shared responsibility between Role 2, BCT medical officer, and BCT S-1. (See ATP 4-02.8 for additional reporting requirements.)

S-1 RESPONSIBILITIES

6-106. Key responsibilities of the CAB S-1 section for HR support to casualty operations include—

- Maintain personnel asset visibility on all assigned or attached personnel.
- Provide Soldiers the opportunity to make changes to their DD Form 93 (*Record of Emergency Data*) and SGLV 8286 (*Servicemembers' Group Life Insurance Election and Certificate*) when changes are necessary and ensure both are current and uploaded into Interactive Personnel Electronic Records Management System.
- Ensure that all assigned or attached personnel are trained on and maintain required copies of DA Form 1156.
- Receive casualty information from subordinate or attached units (information may be received via casualty reporting system, DA Form 1156s, radio, or by other available methods).
- Notify the battalion commander and the chaplain when a casualty occurs.
- Ensure a field grade officer from the CAB reviews and approves all casualty information prior to submission of the initial report. (If the tactical situation does not allow a review, follow-up the initial report with a supplemental update as soon as possible.)
- Submit initial casualty reports to BCT S-1 using DA Form 1156 without delay, or as soon as the tactical situation permits.
- Provide supplemental casualty report information.
- Process posthumous promotions, awards, U.S. citizenship actions, if applicable.
- Appoint summary court-martial officer for personal effects.

- Coordinate for an investigating officer to conduct a collateral investigation (required for hostile deaths and accidental or operational nonhostile and hostile friendly fire incident). (See AR 15-6 for more information.)
- Appoint line of duty investigating officer for nonhostile injuries and deaths, as directed by the commander.
- Prepare, review, and dispatch letters of sympathy or condolence.
- Coordinate with the surgeon, BAS, or medical company to monitor status of patients.
  Track evacuated casualties back to home station/demobilization site.
- Update the commander on the status of casualties.

6-107. Techniques for casualty management include—

- Plan to receive casualty reports from company 1SGs as soon as possible or as mission dictates when casualties occur.
- Plan to forward casualty reports to the BCT S-1 as soon as possible or as mission dictates.
- Monitor mortuary affairs activities and reconcile casualty reports.
- Coordinate with BAS, BSMC, and the HR squad performing a casualty reporting mission to monitor status of casualties.
- Coordinate requirements with the S-4 for mortuary affairs supplies for unit teams.
- Coordinate with the BSMC and the HR squad performing a casualty reporting mission for return to duty of battalion personnel.

RELIGIOUS SUPPORT

6-108. The religious support mission is to assist commanders in the responsibility to provide for the free exercise of religion, and to provide religious, moral, and ethical leadership to sustain a ready force of resilient and ethical Soldiers and leaders. UMTs and chaplain sections, comprised of at least one chaplain and one religious affairs specialist, possess three core competencies: nurture the living, care for the wounded, and honor the dead. The religious support mission is executed through two required capabilities—providing religious support and advising the command.

6-109. Religious advisement is both internal and external. External advisement advises commanders on the potential impact of religion of local populations that are external to the organization. Internal advisement advises commanders on religion, morals, and morale within the organization, and ethical decision making of the command. See FM 1-05 and the ATP 1-05 series for more information.

LEGAL SUPPORT

6-110. The CAB S-1 has an assigned paralegal specialist. Under the direction and supervision of the brigade judge advocate and brigade senior paralegal NCO, the paralegal specialist assists with the delivery of the six core legal disciplines to the commander: military justice, international and operational law, administrative and civil law, contract and fiscal law, legal assistance, and claims. The paralegal specialist's duties include serving as a liaison between the CAB and the brigade legal section, preparing legal and administrative documents under the supervision of a judge advocate, assisting with investigations as directed by the brigade legal section, and tracking all unit legal actions.

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Chapter 7
Enabling Operations and Activities

Enabling operations are specialized missions that units plan and conduct to achieve or sustain a tactical advantage. Units execute these operations as part of offensive, defensive, or stability operations. The fluid nature of the modern battlefield increases the frequency with which the CAB executes enabling operations and activities, which include, reconnaissance and security, tactical road march, relief in place, passage of lines, AA operations, battle handover, and site exploitation. This chapter establishes techniques and procedures unique to the CAB that the battalion can apply to these specialized operations.

SECTION I – RECONNAISSANCE AND SECURITY

7-1. Reconnaissance and security operations are essential to all successful operations. Through effective information collection and continuous reconnaissance, the CAB develops and sustains the necessary understanding to defeat adaptive and determined enemies. Reconnaissance and security operations allow the CAB commander to better understand the tactical, human, and political environment, visualize operations, develop the situation, and identify or create options to seize, retain, and exploit the initiative.

7-2. Reconnaissance and security operations answer CCIRs and enable the commander to make decisions and direct forces to achieve mission success. Both reconnaissance and security operations enable successful offense, defense, and stability operations.

INFORMATION COLLECTION

7-3. Information collection is an activity that synchronizes and integrates the planning and employment of sensors and assets as well as the PED of systems in direct support of current and future operations. (See FM 3-55 for more information.) At the tactical level, reconnaissance, security, and intelligence operations are the primary means by which the CAB executes information collection to answer the CCIRs and support decision-making for the decisive operation. In addition to answering CCIRs, information collection facilitates targeting and fills voids in information.

7-4. *Intelligence* is the product resulting from the collection, processing, integration, evaluation, analysis, and interpretation of available information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations (JP 2-0). Timely, accurate, relevant, and predictive intelligence provides Soldiers with the tools and the confidence they need to proceed aggressively or overcome an enemy's superiority in Soldiers and materiel. Timely, accurate, relevant, and predictive intelligence usually depends on aggressive and continuous information collection. The CAB's S-2 section many times will not be able to process, evaluate, or analyze all of the information collected by the sensors and assets within, or attached to, the CAB. As a result, it must coordinate with the brigade or division S-2 sections in order to gain the most from the information collected and produce intelligence that is useful to the CAB commander and staff.

ROLES AND RESPONSIBILITIES

7-5. Commanders apply combat power through the warfighting functions using leadership and information. Leaders rely on information and the intelligence resulting from it to make informed decisions. With timely and reliable information commanders can exercise their leadership through mission command. Everyone

from the commander to the Soldiers on the ground has a role to play in the information battle and the effective application of combat power. (See ADP 3-0 for more information.)

Commander

7-6. The CAB commander must understand, visualize, describe, direct, lead, and assess operations. Understanding is fundamental to the commander's ability to establish the situation's context. Understanding involves analyzing and understanding the operational or mission variables in a given operational environment. It is derived from applying judgment to the COP through the filter of the commander's knowledge and experience.

7-7. The commander prioritizes collection activities primarily through providing guidance and intent early in the planning process. The CAB commander must identify and update CCIRs to ensure they support the scheme of maneuver and DPs and are limited to only the most critical needs.

Key Staff

7-8. The CAB XO coordinates and directs the efforts of special staff officers, integrates and synchronizes plans and orders, and supervises management of the CCIRs. CCIR are one of two categories: PIR and friendly force information requirements.

7-9. The CAB intelligence cell is responsible for providing timely, accurate, relevant, and predictive intelligence to the commander, staff, and subordinate units. The battalion S-2 leads the cell and supervises and coordinates information collection (in conjunction with the battalion S-3) and the production and dissemination of intelligence. The battalion intelligence cell—

- Makes analytical predictions on when and where actions will occur.
- Provides analysis on the effects of the operational environment on friendly and threat COAs and capabilities.
- Evaluates the threat in terms of doctrine, threat characteristics, HVTs and HPTs, capabilities, and vulnerabilities:
  - A *high-value target* is a target the enemy commander requires for the successful completion of the mission (JP 3-60).
  - A *high-payoff target* is a target whose loss to the enemy will significantly contribute to the success of the friendly course of action (JP 3-60).
- In conjunction with the battalion S-3, coordinates the entire staff's recommended PIRs for inclusion in the CCIRs.
- Integrates staff input to IPB products for staff planning, decision-making, targeting, and assessment.
- Plans and controls intelligence operations in coordination with the S-3 and battalion FSO.

7-10. The CABs primary capabilities for collecting information are their subordinate maneuver companies, patrols, the scout platoon, snipers, Soldier observations, and field artillery FOs. The CAB also has a Raven UAS in the scout platoon and in each mechanized Infantry company. The battalion S-2 may also request support from BCT information collection capabilities. If allocated, these capabilities would normally have a support relationship with the battalion. The BCT MI company commander assists the battalion in planning when MI company capabilities are provided to the CAB.

7-11. The S-2 section formulates collection requirements based on inputs from the commander and staff to develop the information collection synchronization matrix and the information collection plan. The S-2 also identifies those intelligence assets and resources that can provide answers to CCIRs.

7-12. The brigade S-2 supervises HUMINT operations in support of the overall unit operation, at the brigade level. The brigade S-2 section works with the battalion S-2 in information collection planning and assessing, taking developed HUMINT requirements, and identifying the proper assets to answer the requirements. This information is used to develop requirement planning tools and the overall collection plan.

7-13. The S-3 tasks and directs the staff along with the organic and assigned assets for information collection execution. The S-3 collaboratively develops the information collection plan to ensure its synchronization with the operation plan.

Scout Platoon

7-14. The scout platoon is the CAB's primary means of conducting reconnaissance and security. The scout platoon provides early warning and helps control movement of the CAB or its attached elements. The scout platoon is usually under battalion headquarters' control but could be attached to a company within the CAB for certain operations. The CAB's sniper teams also can be assigned a surveillance mission. The following considerations apply to employment of the scouts:

- The distance that scouts operate away from the main body is restricted to the range of supporting indirect fires and secure LOC for resupply and CASEVAC.
- Scout platoons can easily be overtasked as reconnaissance and security missions usually are continuous operations that require careful planning for Soldiers' employment and their rest.
- Scouts are limited in their ability to destroy or repel enemy reconnaissance units.
- Augmenting the scout platoon with engineers could provide a better assessment of route and bridge trafficability and obstacle intelligence (known as OBSTINTEL).
- Scout platoons are limited in their ability to conduct dismounted operations.
- The CAB scout platoon is equipped with the Long Range Scout Surveillance System that is not found in the platoons of the BCT Cavalry squadron.

ABCT Military Intelligence Company

7-15. During operations, the CAB can receive support from the MI company organic to the ABCT. The MI company supports the CAB through collection and analysis of information and dissemination of intelligence. Task-organized via command and support relationships, the MI company provides continual input for the CAB commander by intelligence operations and intelligence analysis tasks as part of the information collection plan. (See ADP 2-0 for more information.)

Other Information Collection Assets

7-16. The CAB commander may have access to other information collection assets from the ABCT and higher echelons, including UASs, Cavalry troops, and Army aviation. The CAB commander also may receive support from, or provide support to, signals intelligence or HUMINT within the ABCT MI company. (See FM 3-55 for more information.)

INFORMATION COLLECTION PROCESS

7-17. Information collection is a continuous feed of relevant information that facilitates the commander's situational awareness and enables better decision-making. Information collection involves the entire staff. The CAB S-3 is the chief integrator of the information collection process though the S-2 and rest of the staff assist with the process. At the BCT level, information collection is planned and synchronized through the collection manager within the BCT S-2 section. The CAB S-3/S-2 should synchronize the information collection efforts and request through the BCT collection manager. The CAB XO supervises synchronization of the information collection plan and its subsequent execution of the following collection tasks, which are described in detail in FM 3-55:

- Plan requirements and assess collection.
- Task and direct collection.
- Execute collection.

Plan Requirements and Assess Collection

7-18. The CAB commander and staff develop IR to answer uncertainties about the enemy or other conditions of the operational environment that could influence planning or execution. The staff develops IR during mission analysis and war gaming as part of the MDMP. One result of the MDMP is linking the situation and

event templates with NAIs and TAIs, both of which are linked to DPs for the commander. The commander approves selected IR as CCIR for DPs. These NAIs, TAIs, and DPs are expressed on the DST. DSTs link the information the commander needs to know with the geographic location where the information can be found and the time the information is likely to be available (based on the event template). The CAB subsequently receives specific IR from the ABCT. (See figure 7-1.) Finally, DSTs could have specific requests for information from subordinates and adjacent units. Placed together, these IR drive information collection operations.

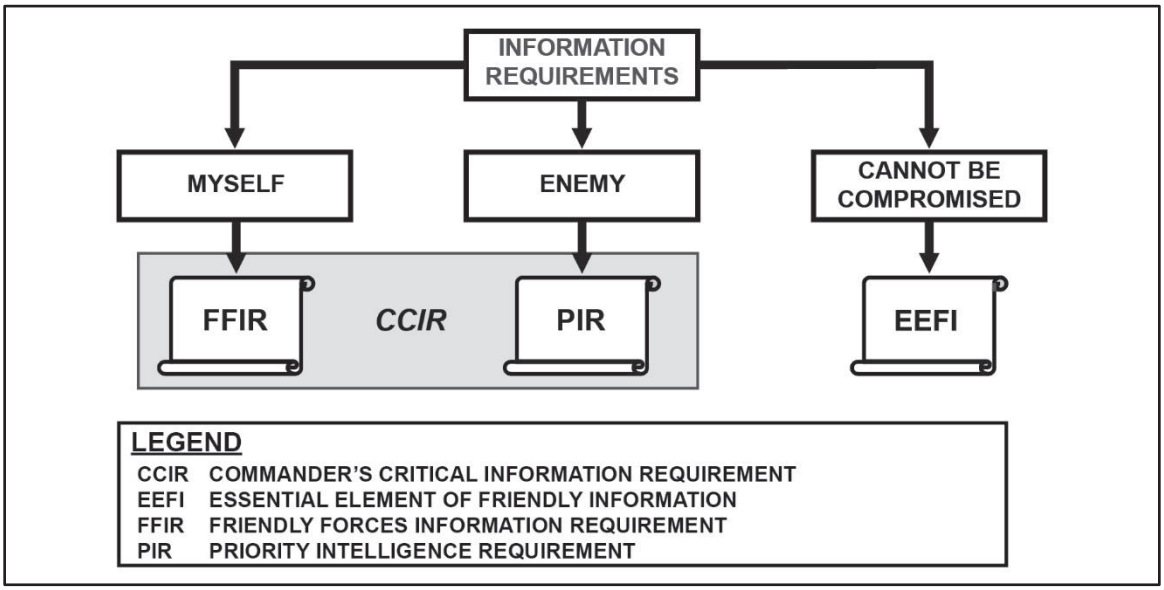


Figure 7-1. Information requirements

7-19. Regardless of the source, each IR should specify—

- WHAT (activity or indicator).
- WHERE (NAIs or TAIs).
- WHEN (time that the indicator is expected to occur and the latest time information is of value [LTIOV]).
- WHY (justification – what decision is the PIR linked to).
- WHO (who needs the results).

Note. NAIs are usually selected to capture indications of adversary COAs but also may be related to conditions of the operational environment. TAIs are the geographical area where HVTs can be acquired and engaged by friendly forces.

7-20. As the staff gathers all of the IR and PIRs, it sorts the requirements to eliminate redundancies, and prioritizes them to assist in allocating resources. The commander then re-evaluates each requirement and begins to finalize the CCIR. This is a continuous process; as a given CCIR is answered or the operational situation changes, other CCIRs usually are generated.

7-21. Ideally, each IR is detailed and specific enough to facilitate collection. Once commanders approve the IR, they break the IR down into indicators. The commander then develops specific IR to ask very specific questions about indicators. Finally, the commander tasks these indicators to collectors (capabilities or sensors) and, taken together, they answer the larger question. For example, one of the CAB commander's PIR is "will the enemy regiment attack through avenue of approach 2 with battalions abreast, or from the march?" This is a broad question and many indicators could lead to its answer. specific IR to support this PIR might include—

- Will enemy units of three to five combat vehicles enter NAIs 11, 12, and 13 between 130400MAR and 130700MAR?
- Will enemy battalion number 2 move from its AA at NAI 7 prior to 130230MAR?
- Identification of second enemy battalion (over 40 enemy light-tracked vehicles) in NAI 11, 12, or 13.

Determine Initial CCIRs and EEFI

7-22. Determining initial CCIRs and EEFI is the most important prerequisite for information collection planning. The staff refines the list of requirements they derive from the initial analysis of information available and from intelligence gaps identified during IPB. They base this list on higher headquarters tasks, commander's guidance, staff assessments, and subordinate and adjacent unit requests for information. (See FM 3-55 for more information.)

7-23. The staff then nominates these requirements to the commander to be CCIRs and EEFI. Commanders alone decide what information is critical based on their experience, the mission, the higher commander's intent, and input from the staff. The CCIRs are the primary focus for information collection activities.

Develop the Initial Information Collection Plan

7-24. The initial information plan is crucial to begin or adjust the collection effort to help answer requirements necessary to develop effective plans. The initial information collection plan sets information collection in motion. (A sample information collection matrix, formatted under the targeting method of D3A, is depicted in figure 7-2 on page 7-6.) Staffs may issue it as part of a WARNORD, a FRAGORD, or an OPORD. As more information becomes available, staffs incorporate it into a complete information plan to the OPORD.

7-25. At this point in the MDMP, the initial information plan has to be generic because the staffs still must develop friendly COAs. The basis for the plan is the commander's initial information collection guidance, the primary information gaps identified by the staff during mission analysis, recommendations from the targeting meeting, and the enemy situational template developed.

INFORMATION COLLECTION MATRIX

UNIT	PHASE	OPORD	FRAGORD	AS OF	PAGE
1-23 AR	III	07-4	22	170700-180659	1 of 1

DECIDE			DETECT			DELIVER			ASSESS		
Priority	Category	HPT	Location	NAI	Asset	When	Asset	Effect	Objective	Asset	When
1				A001	A CO	1100	CDR, 1-23 AR	Inform		A CO	1200 - 1200
Theme:											
2				A002	Mortar PLT	1900	CDR, HHC 1-23 AR	Co-opt		Mortar PLT	2000 - 2000
Theme:											
3			NK 452319	A003	Scout PLT	0800 - 2000	QRF	Destroy		Scout PLT	0800 - 2000
Theme:											
4				A004	B CO	1045	B CO	Warn		B CO	1130 - 0630
Theme:											
5			NK 502287	A005	C CO	0630 - 1700	C CO	Disorganize		C CO	0630 - 1800
Theme:											

SAMPLE

LEGEND

AR	ARMOR	HN	HOST NATION	QRF	QUICK REACTION FORCE
CDR	COMMANDER	HPT	HIGH-PAYOFF TARGET		
CO	COMPANY	IAW	IN ACCORDANCE WITH		
FRAGORD	FRAGMENTARY ORDER	NAI	NAMED AREA OF INTEREST		
HHC	HEADQUARTERS & HEADQUARTERS COMPANY	OPORD	OPERATION ORDER		
		PLT	PLATOON		

Figure 7-2. Information collection matrix

Perform Risk Assessment

7-26. The commander must consider whether the gathering of CCIR is worth the risk of compromising EEFI. This is often the case during surveillance of the maneuver objective. Commander emphasis on EEFI might cause conflicts with the information collection plan. This requires that the commander make a tactical risk assessment and may trigger a change in CCIR or adjust the assigned sensor.

7-27. By the nature of their missions, information collection capabilities may be placed where they might be lost to enemy action. The commander makes the decision whether the intelligence to be gained outweighs the risk to the information collection asset.

Develop the Final Information Collection Plan

7-28. Once the CAB chooses an asset to collect information for an IR, the S-3 turns the special IR into a task for a subordinate company or the scout platoon. This task is a directive statement that tailors the reporting criteria to the collection capabilities of the tasked unit. The information collection plan is developed through these asset tasking. Below are two examples:

- Example 1, mixing reconnaissance management:
  - A special IR could ask, “Is the enemy artillery battalion (over 12 2S-1s) located in NAI 8 between 040800 and 052000MAR?”

- An information collection task to a scout team might state, "Report the presence of 2S-1 artillery systems in NAI 8 between 040800 and 052000MAR. LTIOV: 052200MAR."
- An information collection task to a UAS team might state, "Report movement in NAI 8 between 040800 and 052000MAR. LTIOV: 052200MAR."

- Example 2, mixing reconnaissance management:
  - A special IR could ask, "Is the Gordian insurgency using the mosque in NAI 5?"
  - An information collection task to an Infantry patrol might state, "Report the presence of males in NAI 5 outside normal prayer hours (0545, 1215, 1430, 1700, 1930) between 011200 and 071200NOV. LTIOV: 071400NOV."
  - An information collection task to a Prophet team might state, "Report any radio transmissions in NAI 5 between 011200 and 071200NOV. LTIOV: 071400NOV."

7-29. Units prioritize information management tasks for each specific asset. For example, an information collection task that is the number one priority for an UAS might be lower in priority for a scout team. Figure 7-3 depicts an information collection tasking matrix.

Priority Intelligence Requirements	Indicators	Specific Information Requirements	NAI	Start	Stop	Assets											Decision Point	Target Area of Interest
						CAB				ABCT								
						SCOUTS	A CO	B CO	C CO	1st BN	2nd BN	3d BN	CAV SQDN	Shadow	Prophet LVI	HCT		
1. Where along AA1 will the 375th BTG initiate shaping operations for an area defense?	1. Special purpose forces in hasty battle positions in vicinity EA1 and EA2	1.1.1. Report communications coordinating enemy movement	1,2	H+48	H+2	TA	C	C	TP	C	C	C	C	NT	TA	NT	1	1
		1.1.2. Report movement of fighters into defensive positions	1,2	H+48	H+2	C	TA	TP	C	C	C	C	C	TA	TA	NT	1	1
		1.1.3. Report communications of reconnaissance assets	1,2	H+48	H+2	TP	C	C	TA	C	C	C	C	TA	TP	NT	1	1
	2. Blocking obstacles on AA1 and AA2	1.2.1. Report location of engineer assets	1,2,3	H+48	H+2	C	TP	TA	C	C	C	C	C	TA	TA	NT	1	2
		1.2.2. Report location of deliberate obstacle belts	1,2	H+48	H+2	C	TP	TA	C	C	C	C	C	TP	TA	NT	1	2

LEGEND

AA	AVENUE OF APPROACH	LLVI	LOW-LEVEL VOICE INTERCEPT
BN	BATTALION	NAI	NAMED AREA OF INTEREST
BTG	BRIGADE TACTICAL GROUP	NT	NOT TASKED
C	CAPABLE	R	REQUESTED
CO	COMPANY	SQDN	SQUADRON
CAV	CAVALRY	TA	TASK AS ALTERNATE
EA	ENGAGEMENT AREA	TP	TASKED AS PRIMARY
H	HOUR		
HCT	HUMAN INTELLIGENCE COLLECTION TEAM		

Figure 7-3. Information collection tasking matrix

PROCESSING, EXPLOITATION, AND DISSEMINATION

7-30. PED is a general concept that facilitates the allocation of capabilities to support intelligence operations. Under the PED concept, the S-3 and S-2 examine all collection assets and then determine if allocation of additional personnel and systems are required to support the exploitation of the collected information. Accounting for PED facilitates processing collected information into usable and relevant information for all-source production quickly. PED enablers are the specialized intelligence and communications systems, advanced technologies, and the associated personnel that conduct intelligence processing as well as support other single-source analytic capabilities within intelligence units. These enablers are distinct from intelligence collection assets and all-source analysis capabilities. PED enablers are prioritized and focus on intelligence processing and assessment to quickly support specific information collection requirements and facilitate improved intelligence operations. Use of PED enablers require direct coordination with the brigade S-2 staff. (See ADP 2-0 and FM 2-0 for more information on PED and PED enablers.)

Disseminate Information Gathered

7-31. The ultimate goal of the dissemination process is to get the right information in the hands of the CAB commander in time in order to make a decision. Planners arrange direct dissemination from the collector to the requestor. Whenever possible, the information collection plan includes the requirement for direct dissemination of information to the requestor. For example, information regarding NAI 1 that triggers a targeting decision at TAI 1 (employment of the CAB's allocation of CAS) should go to the CAB commander as well as the CAB FSO, ALO (if present), and S-2. The staff does this to determine if the information answers the CCIR and is what the CAB commander wants to target. A well-synchronized information collection plan directs the collectors as to what nets to use to pass on information and to whom. The plan should detail when to use a net call, use of precedence coding (flash, priority, and so forth), and dissemination using digital systems. Perishability is a key consideration in dissemination. At the CAB level, most information generated during execution is combat information and requires immediate dissemination to the commander and subordinate units affected.

Monitor Operations

7-32. As the operation progresses, the S-2 tracks the status of each information collection task, analyzes SIR, and ultimately answers the CCIR. The S-2 pays particular attention to which assets are not producing the required results. It is very likely that the staff's assumptions about the enemy COAs will not prove entirely correct. This may result in changes to the IR or adjustments to the collection timeline. During execution, the staff assesses the value of the information it received from collection assets and refines information collection tasks to fill in gaps.

7-33. Each unit monitors and evaluates its information collection efforts during execution. Company commanders can use the intelligence analyst from the S-2 section, or the company intelligence support team if assembled, when METT-TC allows the formation of one to manage the information collection task by maintaining database information, collecting and reporting information to higher, lower, and adjacent units.

Update Information Collection Plan

7-34. As with all operations, the collection plan rarely survives contact with the enemy and requires adjustment during execution. The following factors could drive changes to the collection plan:

- A CCIR is satisfied or overcome by events, freeing an asset for other operations.
- A single information collection asset has unexpected success, freeing redundant assets for other operations.
- An asset cues the collection manager but requires confirmation that requires dynamic re-tasking of other assets.
- The timing of the operation has become desynchronized, requiring modification of LTIOV or changes to prioritization.
- The commander generates new CCIR as the operation evolves and the enemy situation develops.

- A change to the enemy situation (the enemy follows an unexpected COA).
- Higher headquarters changes the mission of the CAB into an unplanned operation.

7-35. The steps in updating the information collection plan are collaborative efforts by the S-2 section and operations staff. Some steps predominately engage the intelligence staff, others the operations staff. Some steps may require coordination with other staff sections, and others may engage the entire operations and intelligence working group. (See FM 3-55 for more information on the steps in updating the information collection plan.)

RECONNAISSANCE

7-36. Reconnaissance identifies terrain characteristics, enemy and friendly obstacles to movement, and the disposition of enemy forces and civilian population so the commander can maneuver forces freely and rapidly. (See FM 3-98 for more information.) Reconnaissance also answers the CCIRs. Reconnaissance prior to unit movements and occupation of AAs is critical to protecting the force and preserving combat power. It keeps the force free from contact as long as possible so that it can concentrate on its decisive operation.

RECONNAISSANCE FUNDAMENTALS

7-37. During planning and performing reconnaissance operations, the CAB commander and staff keep seven reconnaissance fundamentals in mind:

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

TYPES OF RECONNAISSANCE

7-38. To logically group specific IR and taskings into missions for subordinate commanders, the CAB commander uses one of five types of reconnaissance. (See FM 3-98 for more information.) The types of reconnaissance refine the scope of the reconnaissance commander's mission and give it a spatial relationship. The five types of reconnaissance are—

- Zone reconnaissance.
- Area reconnaissance.
- Route reconnaissance.
- Reconnaissance in force.
- Special reconnaissance (only performed by SOF).

Zone Reconnaissance

7-39. A *zone reconnaissance* is a type of reconnaissance operation that involves a directed effort to obtain detailed information on all routes, obstacles, terrain, and enemy forces within a zone defined by boundaries. (ADP 3-90). The commander assigns a zone reconnaissance when the situation is vague or when information about cross-country trafficability is desired. Zone reconnaissance is appropriate when the unit's previous knowledge of the terrain is limited or when combat operations have altered the terrain. The reconnaissance is either enemy-oriented or terrain-oriented. A zone reconnaissance can be deliberate and time-consuming.

7-40. The CAB commander gives guidance for a zone reconnaissance, which may be to determine the best routes to move through the zone or to locate an enemy force. The commander defines the zone to be reconnoitered by using lateral boundaries, an LD, and objective LOA. The objective provides a termination point for the mission and might be occupied by the enemy. A phase line also can be used as a termination point. Figure 7-4 on page 7-10 provides an example of a zone reconnaissance for the scout platoon.

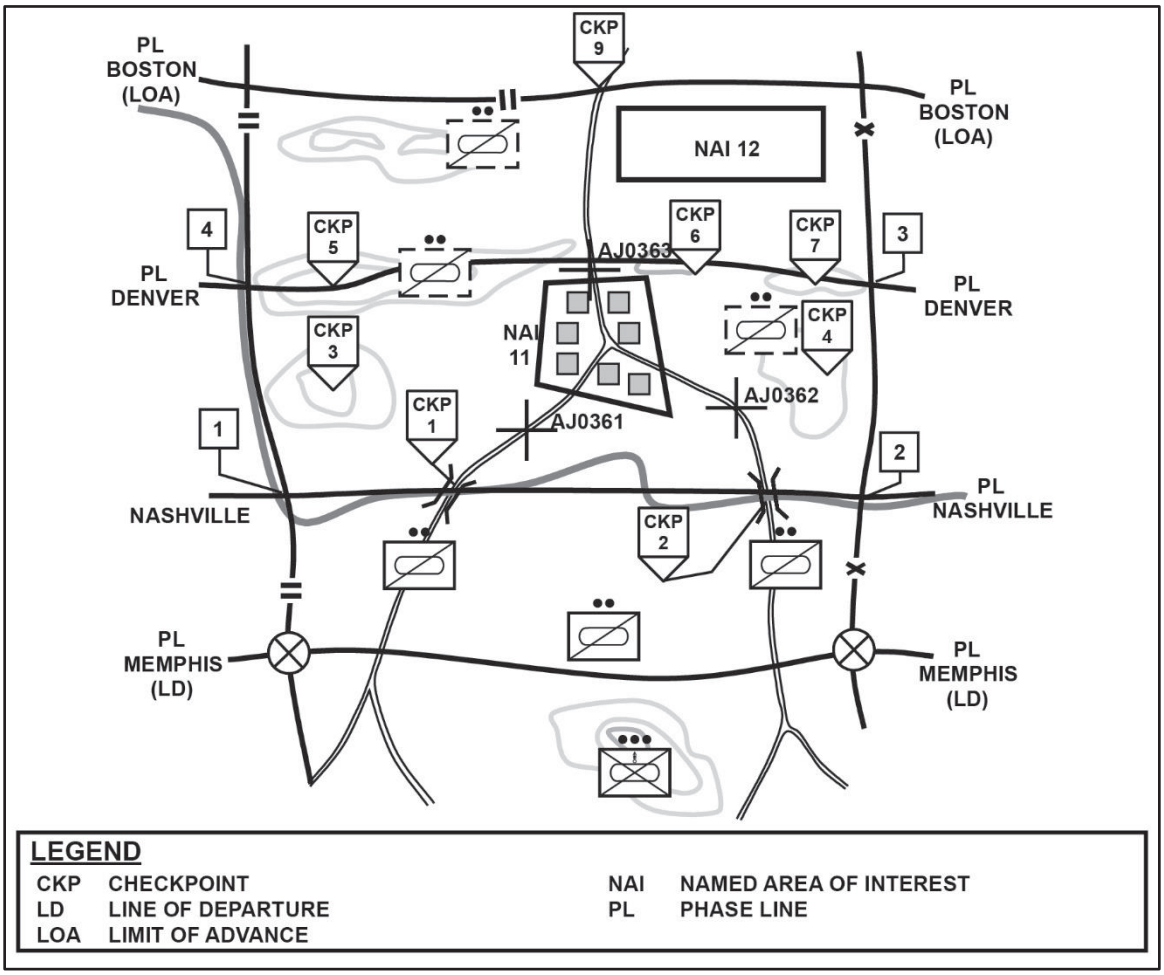


Figure 7-4. Combined arms battalion zone reconnaissance

Area Reconnaissance

7-41. An *area reconnaissance* is a type of reconnaissance operation that focuses on obtaining detailed information about the terrain or enemy activity within a prescribed area (ADP 3-90). An area reconnaissance provides information about a specified area such as a town, ridge, woods, or other feature critical to operations. The CAB commander must specify exactly what to look for and why. There are two ways of conducting reconnaissance of the area: by maneuvering elements through the area or by establishing OPs within or external to the AOI.

7-42. The commander designates the area to be reconnoitered by establishing a boundary line that encircles it. Area reconnaissance differs from zone reconnaissance in that the unit moves to the assigned area by the most direct route. Once in the area, the tasked unit reconnoiters in detail using zone reconnaissance techniques.

Route Reconnaissance

7-43. *Route reconnaissance* is a type of reconnaissance operation to obtain detailed information of a specified route and all terrain which the enemy could influence movement along that route (ADP 3-90). The CAB may perform a route reconnaissance to ensure that the route is clear of obstacles and enemy and that it will support planned movement. Units sometimes perform a route reconnaissance as part of an area or zone reconnaissance.

7-44. The number of routes reconnoitered depends on the length of the routes, the enemy situation, and the nature of the routes themselves. When enemy contact is likely or expected, or when the route is long and stretches through difficult terrain, the CAB might require the entire scout platoon to reconnoiter that one route. When the reconnaissance tempo is rapid or the desire for specialized route information is high, the scout platoon should be augmented with engineer reconnaissance capability from brigade.

Reconnaissance in Force

7-45. A *reconnaissance in force* is a type of reconnaissance operation designed to discover or test the enemy's strength, dispositions, and reactions or to obtain other information (ADP 3-90). The CAB commander uses a reconnaissance in force when the enemy is known to be operating within an area and the commander cannot obtain adequate information by other means. Since it generally must penetrate the security area of a larger enemy force, the CAB requires augmentation to conduct a reconnaissance in force. These augmentations include—

- Helicopter or UAS reconnaissance.
- CBRN reconnaissance assets.
- Artillery (or rocket) fire support.
- Short-range air defense.
- Engineer mobility and countermobility assets.

7-46. The CAB 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 in pursuit of clearly stated CCIR. 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 usually is conducted only to gain information about the enemy and not the terrain.

Special Reconnaissance

7-47. *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). Special reconnaissance provides an additional capability for commanders and supplements other conventional reconnaissance and surveillance actions. Restrictive fire control measures (for example, no fire areas or restrictive fire areas) will be monitored by CAB fires personnel when special reconnaissance forces are operating in a CAB or BCT AO.

Planning Considerations

7-48. Commanders provide clear reconnaissance guidance that offers freedom of action to develop the situation and adequate direction. Reconnaissance planning starts with the commander identifying the CCIR. This process may be conducted while the unit is planning or preparing for an operation; in many cases, it continues throughout the operation. (See FM 3-98 for more information.) The commander's guidance consists of five elements:

- Reconnaissance focus.
- Reconnaissance tempo.
- Engagement criteria both lethal and nonlethal.
- Disengagement criteria.
- Transition criteria.

7-49. The CAB commander considers mission variables when planning for mounted, dismounted, aerial, or reconnaissance by fire. Conditions that lead to a decision about the type of reconnaissance include—

- Time constraints.
- Required detail level of reconnaissance.
- Availability of air units to perform coordinated reconnaissance with ground assets.
- IPB information.

- Avenues of approach that support friendly movement and exploit enemy weaknesses.
- Key positions, especially flanks that can be exploited.
- Information from OPs.
- Type of terrain.
- Environmental conditions, such as deep snow and muddy terrain that greatly hinder mounted reconnaissance.

7-50. The commander considers employing UAS for reconnaissance. UASs provide the commander with essential terrain and enemy information. Most UASs can operate in daylight or limited visibility but may be vulnerable to enemy air defense, if present.

7-51. Leaders at all echelons coordinate and synchronize reconnaissance efforts. The key point is to use reconnaissance assets based on their capabilities and use their complementary capabilities to verify and expand on available information.

7-52. Sustainment planning is indispensable throughout the planning process. The commander assesses all constraints and considers the following:

- Resupply procedures for mounted and dismounted reconnaissance missions.
- Predetermined locations and times for resupply.
- Tactics, techniques, and procedures for CASEVAC and MEDEVAC.
- Pickup points and times for pickup and aerial extraction of casualties.
- Resupply procedures for class VIII by AHS support elements.

7-53. The commander must provide specific guidance to the reconnaissance force. The commander's guidance for reconnaissance includes focus, tempo, engagement criteria, engagement criteria, and transition criteria. This guidance is an extension of the commander's intent and is designed to focus the reconnaissance leader's efforts in relationship to the CAB mission.

Reconnaissance Focus

7-54. Reconnaissance focus, combined with one or more reconnaissance objectives, helps to concentrate the efforts of the reconnaissance assets. The commander's focus for reconnaissance usually falls in three general areas: CCIR, targeting, and voids in information. The commander's focus enables reconnaissance personnel to prioritize taskings and narrow their scope of operations. An operation may have a terrain focus where status of routes, bridges, and obstacles are more important than the enemy. Conversely, the operation may focus on the enemy where locating the enemy's security zone, main body, and reserves are essential. The following are the four categories of reconnaissance focus: threat, infrastructure, terrain and weather effects, and society. Additionally, commanders may express their focus in terms of reconnaissance pull and push. (See FM 3-98 for more information.)

Reconnaissance Pull

7-55. The CAB commander uses a reconnaissance pull when the enemy situation is not well known and or the situation is rapidly changing. Reconnaissance pull fosters planning and decision-making based on changing assumptions into confirmed information. The CAB uses initial assumptions and PIR to deploy reconnaissance assets as early as possible to collect information for use in developing COAs. The commander uses information collection assets to confirm or deny initial PIRs prior to deciding upon a COA or maneuver option, thus pulling the CAB to the decisive point on the battlefield. Success of the reconnaissance pull requires an integrated reconnaissance plan that can be executed prior to the commander having to make a COA decision.

Reconnaissance Push

7-56. The CAB commander uses a reconnaissance push once committed to a COA or maneuver option. The commander pushes the information collection assets forward, as necessary, to gain greater visibility on specific NAIs to confirm or deny the assumptions on which the COA is based. Information gathered during reconnaissance push is used to finalize the CAB plan.

Reconnaissance Tempo

7-57. The reconnaissance tempo refers to the pace, scope, and aggressiveness required to accomplish reconnaissance and security missions as seen in figure 7-5. Pace establishes the speed at which the scouts are supposed to conduct the assigned tasks to facilitate the commander's operating tempo. Pace is conveyed using the terms rapid or deliberate. The assigned pace will naturally impact the depth of information collected. By assigning a rapid pace, the commander is accepting a reduced scope and specificity of information associated with the assigned tasks.

7-58. Commanders identify the number of tasks associated with a type of reconnaissance that are necessary to achieve mission accomplishment. Scope is conveyed using the terms limited or broad. In a limited reconnaissance, tasks are prescribed to the minimum amount necessary to accomplish the mission. A broad reconnaissance implies all tasks for that type of reconnaissance must be accomplished to ensure mission success. This is usually necessary when the understanding of the operational environment is vague.

7-59. Aggressiveness establishes the necessity to avoid detection or avoid engagement. Aggressiveness is conveyed using the terms stealthy or forceful. In a stealthy reconnaissance, units are governed by more restrictive engagement and disengagement criteria. In a forceful reconnaissance, units develop the situation through action and are governed by more aggressive engagement and disengagement criteria.

7-60. Rapid and deliberate are mutually exclusive levels of pace, as one cannot be rapid and deliberate at the same time. Similarly, limited and broad are mutually exclusive levels of detail, while stealthy and forceful are mutually exclusive levels of aggressiveness. (See FM 3-98 for more information.) As such, the eight appropriate tempos are—

- Rapid, limited, and stealthy.
- Rapid, limited, and forceful.
- Rapid, broad, and stealthy.
- Rapid, broad, and forceful.
- Deliberate, limited, and stealthy.
- Deliberate, limited, and forceful.
- Deliberate, broad, and stealthy.
- Deliberate, broad, and forceful.

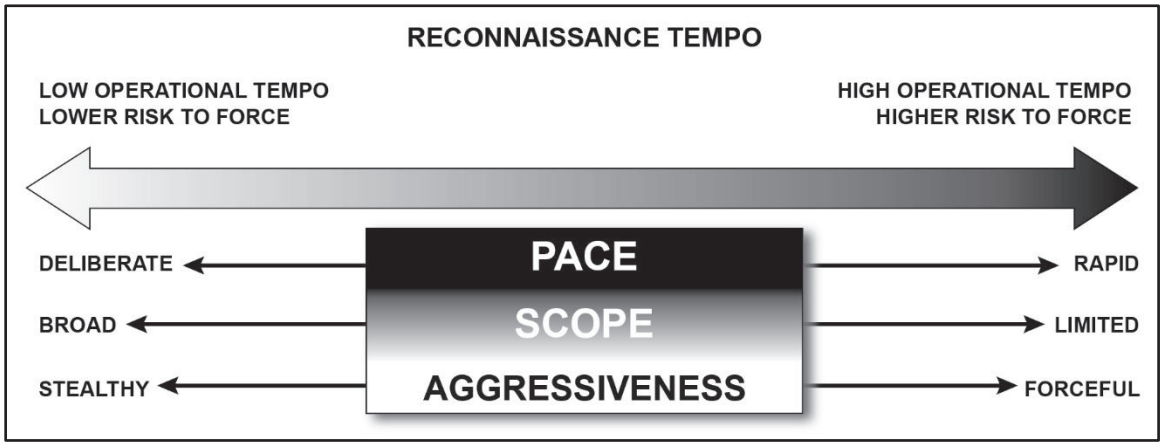


Figure 7-5. Reconnaissance tempo

Engagement Criteria

7-61. The commander determines which enemy forces the reconnaissance forces expect to engage and with what level of force. This decision aids the reconnaissance leadership to plan direct and indirect fires and to establish bypass criteria. This decision is very important when the reconnaissance force is augmented with combat systems to conduct forceful reconnaissance.

Transition Criteria

7-62. Transition criteria are protocols that specify those circumstances for changing to a different mission set. Examples of these triggers are planned forward movement, planned withdrawal, a passage of lines, reconnaissance handover between units, or a transition to another phase of the operation. As with engagement and disengagement criteria, the conditions and parameters included in transition criteria integrate the commander's intent with tactical feasibility.

Disengagement Criteria

7-63. Disengagement criteria define triggers for planned withdrawal, passage of lines, or reconnaissance handover between units. As with engagement criteria, the disengagement criteria integrate the CAB commander's intent with tactical feasibility. Conditions are either event, threat, or time driven. Failure to specifically dictate conditions of disengagement, nested within the higher scheme of maneuver will likely result in ineffective reconnaissance and security operations.

AERIAL SURVEILLANCE

7-64. UASs are capable of locating and recognizing major enemy forces, moving vehicles, weapons systems, and other targets that contrast with their surroundings. In addition, UASs are capable of confirming the position of friendly forces and locating the presence of noncombatant civilians. Employed together, UASs and ground reconnaissance make an excellent team.

7-65. While UASs are force multipliers, they have limited effectiveness in locating enemy forces that are well covered or concealed. They also are not well suited for wide area searches. Rather, employing UASs as part of an overall collection plan makes optimal use of their capabilities. (See ATP 3-04.1 for more information.)

7-66. Before using a UAS, the unit must coordinate airspace with the BAE. The minimum information required is—

- Time of launch and duration of mission.
- Location of the UAS restricted operations zone.
- Launch and landing coordinates.
- Required altitude.
- Laser designation code (if applicable).

7-67. The CAB currently has the Raven for UAS capability in the scout platoon and each rifle company. The Raven is a man-portable, hand-launched small aerial vehicle designed for reconnaissance and surveillance. Two Soldiers operate the Raven as an additional duty. The Raven requires no class III fuel because batteries power an electric motor, which powers the Raven.

7-68. Most Raven missions occur between 100 and 300 feet. Depending on the battery used, mission time can range from 60 to 90 minutes. A remote video terminal also provides a real-time video feed of the mission. The optics package includes an electro-optical, color camera nose for day operations, and infrared or thermal noses for night operations. (See FM 3-52 and ATP 3-52.1 for more information.)

RECONNAISSANCE HANDOVER

7-69. Coordinating the transfer of an assigned reconnaissance area from one element to another is known as reconnaissance handover. Reconnaissance handover can involve physical, visual, electronic, or digital observation in any number of combinations. Assets such as ground sensors and UASs are also transferred. There are numerous ways the CAB scout platoon and Cavalry troops from the Cavalry squadron can work together to perform reconnaissance handover during operations.

7-70. During the ABCT offense, the Cavalry squadron is usually forward of the CABs. During the approach to the objective, the Cavalry troops and CAB scouts may do the following (see figure 7-6a, figure 7-6b on page 7-16, and figure 7-6c on page 7-16):

- The Cavalry troop may handover key OP positions to CAB scouts as they advance through the AO.
- The Cavalry troop may guide the CAB scouts into position and keep them informed about terrain, enemy positions, and obstacles that they have already found.
- CAB scouts can provide overwatch for the cavalry troop scouts moving to their next series of OPs or conducting reconnaissance of the area or zone.

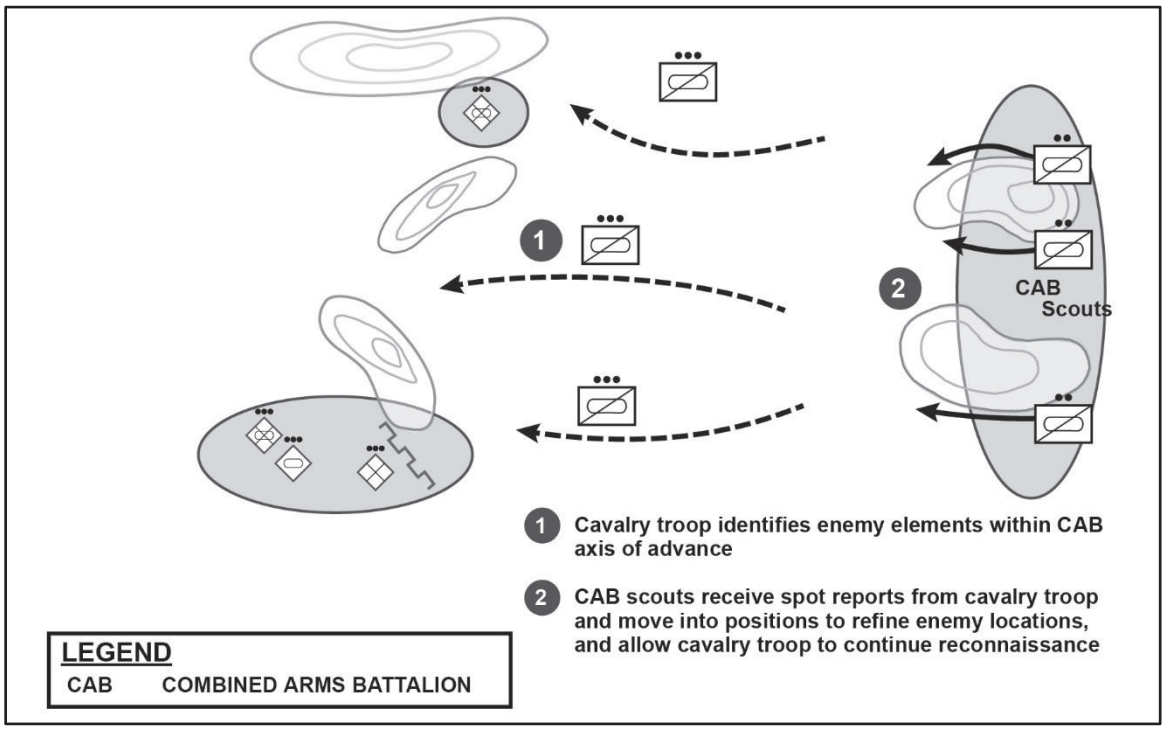


Figure 7-6a. Cavalry troop and combined arms battalion scout employment during Armored brigade combat team offense

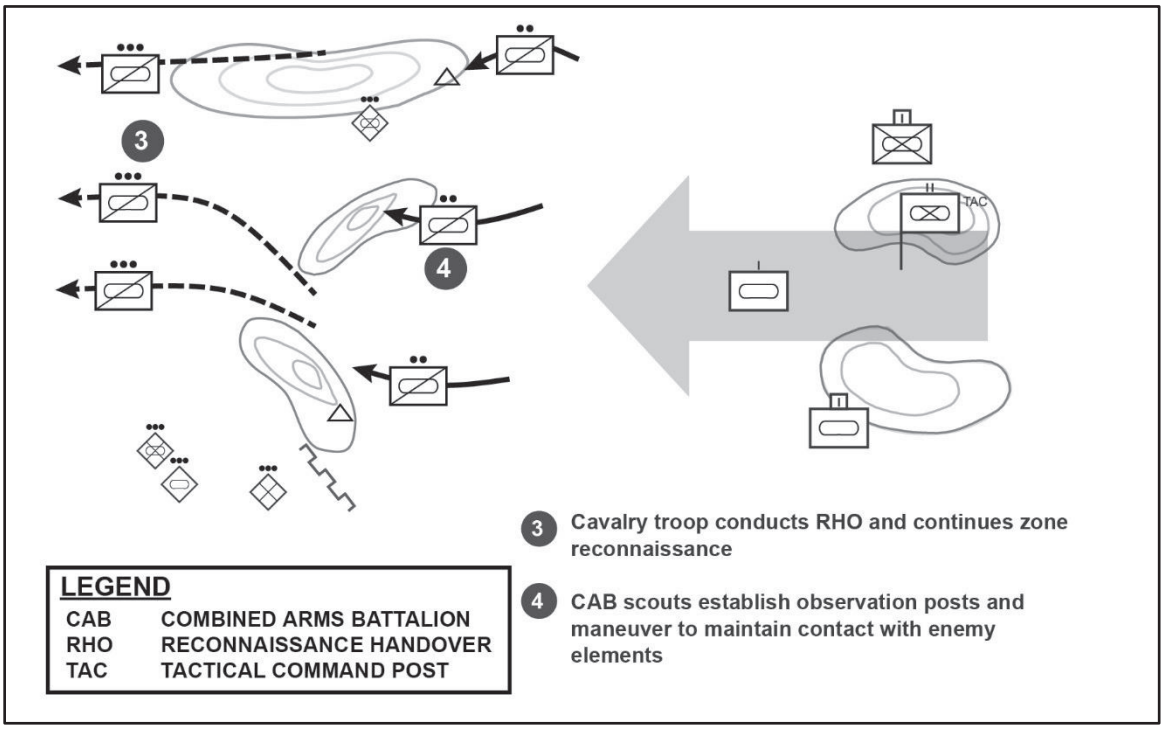


Figure 7-6b. Cavalry troop and combined arms battalion scout employment during Armored brigade combat team offense (continued)

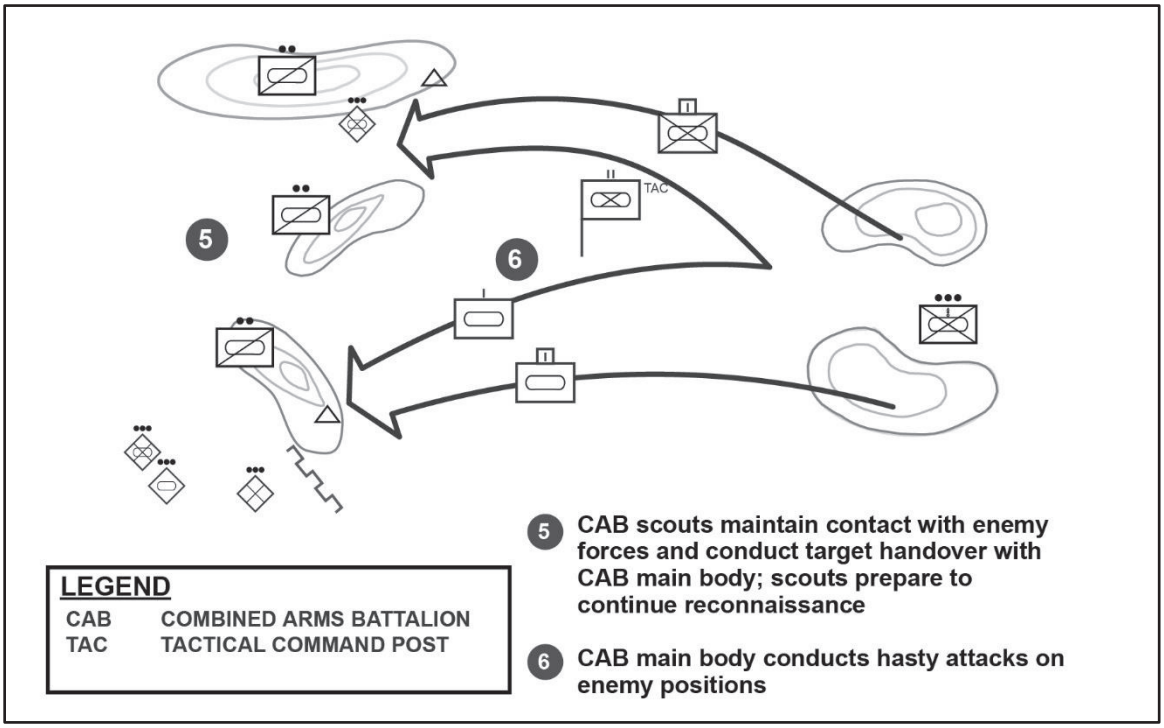


Figure 7-6c. Cavalry troop and combined arms battalion scout employment during Armored brigade combat team offense (continued)

COUNTERRECONNAISSANCE

7-71. In the defense, the primary mission of the scout platoon is to provide security and early warning for the CAB. Scouts conduct screens to the front, flanks, and rear of the CAB. The scout platoon generally accomplishes a screen by establishing a series of OPs and conducting patrols to ensure adequate reconnaissance and surveillance of the assigned sector.

7-72. The CAB employs its scouts to provide screening in-depth for the counterreconnaissance force. *Counterreconnaissance* is a tactical mission task that encompasses all measures taken by a commander to counter enemy reconnaissance and surveillance efforts. Counterreconnaissance is not a distinct mission, but a component of all forms of security operations (FM 3-90-1). The reconnaissance teams and counterreconnaissance team occupy the most forward positions. The employment and coordination of the CAB scouts and Cavalry troops in the counterreconnaissance operation is TACSOP-driven.

7-73. Using a company team in a forward screen role provides a strong counterreconnaissance capability, gives a measure of deception, and facilitates early engagement. The company team also has the capabilities to identify and destroy most enemy reconnaissance elements.

7-74. The CAB also can integrate its scouts into the ABCT counterreconnaissance mission. Cavalry troops and scout platoons provide stealthy observation and early warning of the enemy's reconnaissance elements. The reconnaissance teams locate the enemy reconnaissance forces, and then guide the counterreconnaissance elements to them. The scouts maintain a low signature by not engaging any targets. Tanks, IFVs, and dismounted Infantry in the counterreconnaissance team kill the enemy reconnaissance. Digitization enables the scouts and counterreconnaissance team to execute a more fluid and dynamic counterreconnaissance fight with less chance of fratricide due to the increased clarity of unit positions on the battlefield.

7-75. Unit TACSOPs must address procedures for inoperative scout communications systems. Scouts with inoperative systems risk fratricide; the CP should account for scouts by using analog methods and with manual input of platforms into the COP. CPs must also track the operational status of each scout's digital C2 platforms.

7-76. In order for the CAB scout platoon and Cavalry troop to work together, the CAB and ABCT staffs coordinate the following:

- Communications and digital architecture.
- C2 architecture.
- NAI coverage and intelligence gaps.
- FSCMs.
- Fratricide avoidance measures.

SECURITY

7-77. The ultimate goal of security is to protect the force from surprise and reduce the unknowns in any situation. That force being protected may be the civilian population, civil institutions, and civilian infrastructure within the unit's AO. A commander may conduct security operations to the front, flanks, or rear of the friendly force. Security operations are shaping operations. As a shaping operation, economy of force is often a condition of tactical security operations.

PURPOSE OF SECURITY OPERATIONS

7-78. The purpose of security is to provide the next higher commander with information about threat and terrain, prevent the main body from being surprised, provide time and space for reaction, preserve initiative and freedom of movement or maneuver, and to protect and preserve the combat power for decisive employment. Reconnaissance and counterreconnaissance are inherent and continuous in all security tasks. The focus of reconnaissance is preventing the surprise of the protected force commander. Reconnaissance provides information that allows the commander to make decisions regarding maneuver and fires, and security provides reaction time to implement those decisions.

7-79. The CAB conducts internal security operations using its own scout platoon, armor companies, or mechanized Infantry companies. The CAB's ability to conduct security missions in support of its own operations is generally limited to screening. The CAB generally performs two types of security missions: area security and screen. It can conduct guard operations when augmented with artillery and aviation from brigade or higher.

7-80. Counterreconnaissance denies the enemy information about friendly operations or to destroy or repel enemy reconnaissance elements. Security forces operate either offensively or defensively when executing counterreconnaissance. The designated counterreconnaissance plan provides the active and passive measures to defeat the enemy's reconnaissance efforts and protect the friendly force from observation. Continuous reconnaissance and counterreconnaissance contribute to the fundamentals of security operations.

FUNDAMENTALS OF SECURITY

7-81. The five fundamentals of security operations are—

- Provide early and accurate warning.
- Provide reaction time and maneuver space.
- Orient on the protected force, area, or facility.
- Perform continuous reconnaissance.
- Maintain enemy contact.

Provide Early and Accurate Warning

7-82. The security force provides early, accurate warning by detecting the threat force quickly and reporting information accurately to the main body commander. Early warning of threat activity provides the commander with the time, space, and information needed to retain the tactical initiative and to choose the time and place to concentrate against the threat. At a minimum, the security force should operate far enough from the main body to prevent enemy ground forces from observing or engaging the main body with direct fire. Maneuver forces, sensors, and tactical UASs are positioned to provide long-range observation of expected threat avenues of approach.

Provide Reaction Time and Maneuver Space

7-83. The security force operates as far from the protected force as possible within supporting range of the protected force, consistent with the factors of METT-TC. Provided communications are maintained, more distance usually yields greater reaction time and maneuver space for the protected force commander. The security force fights as necessary (within the engagement criteria) to gain and retain adequate time and space for the protected force commander, allowing forces to maneuver and concentrate as needed to counter the threat.

Orient on the Protected Force, Area, or Facility

7-84. The security force focuses all its actions on protecting the secured force or facility and providing maximum early warning of threat activity. It operates between the main body and known or suspected enemy units. The security force must move as the main body moves and orients on its movement. The security commander must know the main body's scheme of maneuver in order to maneuver forces so it remains between the main body and the enemy. The value of terrain occupied by the security force depends on the protection it provides to the main body commander.

Perform Continuous Reconnaissance

7-85. Security comes in large part from knowing as much as possible about the threat and terrain within the assigned AO. This detailed knowledge results from ongoing, focused reconnaissance that aggressively and continuously reconnoiters key terrain; seeks the location, composition, and disposition of the threat; and attempts to determine the threat's COA early so that the CAB can counter it. Stationary security forces use combinations of OPs, UASs, patrols, and other information collection assets to perform continuous

reconnaissance. Moving security forces accomplish this fundamental by performing area, zone, or route reconnaissance in conjunction with temporary OPs and battle positions.

Maintain Enemy Contact

7-86. Unless otherwise directed, contact, once gained, is not broken. The individual scout or sensor that first makes contact does not have to maintain it; however, the security force, collectively, must maintain contact. The security force also must continuously gather information on the threat's activities and prevent the threat from surprising the main body or endangering adjacent friendly forces. This fundamental requires—

- Continuous contact (visual, electronic, sensor, or a combination).
- Capability to use direct and indirect fires.
- Freedom to maneuver.
- Depth (of observers in time and space).

COMMANDER'S SECURITY GUIDANCE

7-87. As with reconnaissance guidance, commanders provide clear security guidance that offers freedom of action and direction to ensure the elements of the CAB can accomplish stated objectives within the required timeframe. The commander's security planning guidance provides a clear understanding of the elements' task, purpose, and objective, and the security operation's protection requirements. (See FM 3-96.) The components of the commander's security guidance are—

- Focus. The security focus defines what the element is to protect and why.
- Duration. Clearly articulating the duration of security operations allows the commander to establish associated time requirements that drive security operations planning such as the method of establishing OPs (either mounted or dismounted), battle positions, length of UAS rotation, and required logistical and communications support necessary to execute the mission.
- Engagement criteria. Engagement directs the element to engage and destroy enemy reconnaissance assets.
- Disengagement criteria. Disengagement directs the element to allow enemy reconnaissance assets to pass to identify, disrupt, or isolate the enemy's second-echelon forces with direct and indirect fires.
- Transition criteria. Transition criteria during a security operation allow the element to retain its flexibility and tactical agility.

SECURITY OPERATIONS

7-88. Security operations encompass four types of operations: screen, guard, cover, and area security:

- *Screen* is a type of security operation that primarily provides early warning to the protected force (ADP 3-90).
- *Guard* is a type of security operation done to protect the main body by fighting to gain time while preventing enemy ground observation of and direct fire against the main body (ADP 3-90).
- *Cover* is a type of security operation done independent of the main body to protect them by fighting to gain time while preventing enemy ground observation of and direct fire against the main body (ADP 3-90).
- *Area security* is a type of security operation conducted to protect friendly forces, lines of communications, installation routes, and activities within a specific area (ADP 3-90). Local security is now included within area security and no longer its own security operation.

Screen

7-89. The primary purpose of a screen is to provide early warning. It observes, identifies, and reports enemy actions. A screen provides the least amount of protection of any security mission. In general, a screening force fights in self-defense; however, when necessary, it can engage and destroy enemy reconnaissance elements within its capabilities. (See FM 3-98 for more information.)

Combined Arms Battalion Screen

7-90. At the battalion level, the scout platoon usually performs screen missions in support of CAB missions. When the terrain provides multiple enemy avenues of approach, the battalion commander can attach the scout platoon to a company to conduct a screen. The screening force establishes a series of OPs and conducts patrols to observe NAIs and TAIs to meet the CCIR. Additionally, the BCT might task the CAB itself to perform screening missions in support of a BCT defense or other operation. (See figure 7-7.) In this instance, the CAB maneuver companies take on the role traditionally performed by the battalion scouts who may or may not be placed OPCON to a company commander.

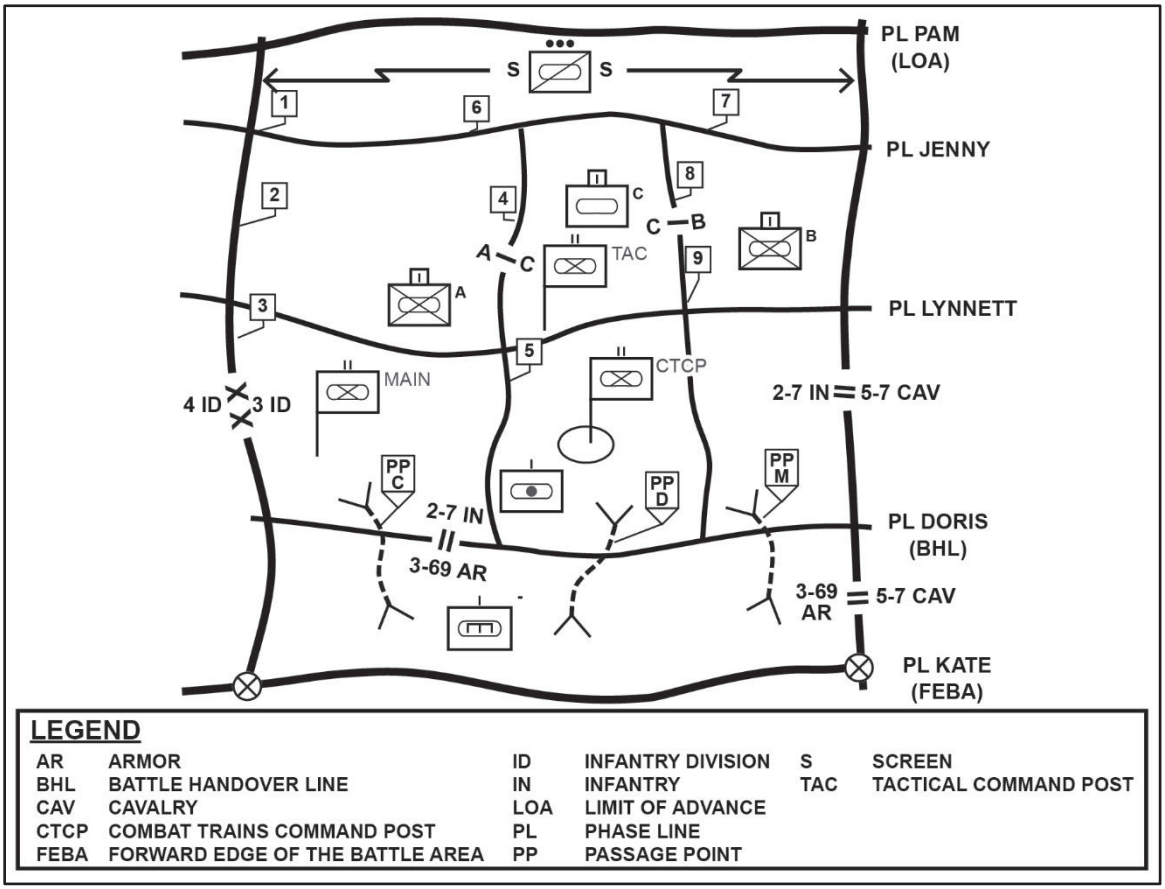


Figure 7-7. Combined arms battalion conducting screen mission for Armored brigade combat team

Planning a Screen

7-91. When assigning a screen mission to a company, the CAB commander designates the general trace of the screen and the time it must be established. This general trace is based upon the S-2's designation of NAIs. The initial screen line should be forward of the general trace but remain within range of supporting artillery and battalion mortars. Screen lines are depicted as phase lines; passage graphics are included in the overlay. Other planning considerations are—

- Designate the left and right limits of the screen as well as a phase line for the near boundary. This phase line also can become the on-order BHL.
- Confirm which unit has responsibility for the area between the screening force's rear boundary and the MBA. This should be the company that occupies the areas behind the screen.
- Propose general locations for OPs that enable observation of the avenues of approach into the area.
- Propose locations for prepared or situational obstacles.

- Develop trigger lines to mass direct and indirect fires.
- Select routes or lanes to facilitate rearward displacement.
- Augment the security force as needed to provide intelligence, engineer, air defense, signal, and sustainment.
- Ensure RPOL planning and rehearsals are executed.

7-92. When the CAB receives a security mission, the BCT usually provides this general guidance—

- Force or area to be secured.
- Location and orientation of the security area.
- Time allocated to establish the security force.
- Criteria for ending the security mission.
- Task-organization and augmentation of security forces.
- Engagement and displacement criteria.

Force or Area to be Secured

7-93. The CAB commander must designate the exact force to be secured. This designation determines the limits of the security force's responsibilities. If the main body moves, the security force also moves to maintain its position in relation to the main body.

Location and Orientation of the Security Area

7-94. The CAB commander determines the location, orientation, and depth of the security area in which the security force will operate. The commander might also designate specific avenues of approach or NAIs to cover. Depth in the security area provides the main body with more time to react to approaching enemy ground units. Occupying a deep security area allows the security force to destroy enemy reconnaissance assets without compromising critical OPs or positions or becoming decisively engaged. The wider the area to be secured, the more difficult it is for the security force to position in-depth; this is because it must position itself across the width of the area.

7-95. The CAB then conducts a detailed analysis of the terrain in the security area. The commander establishes the initial dispositions (usually a screen line) as far forward as possible on terrain that affords good observation of avenues of approach. Next, the CAB commander clearly assigns responsibility for identified avenues of approach and designated NAIs. For a screen, the initial line must be within supporting range of the main body, yet provide the desired amount of early warning.

Time Allocated to Establish the Security Force

7-96. The CAB commander must determine when to establish the security force based on the activity of the main body and expected enemy activity. To prevent enemy forces from penetrating the security area undetected, the commander must allow enough time for the security force to move into and occupy the security area.

Criteria for Ending the Security Mission

7-97. Security operations are usually time- or event-driven. The criteria for ending a security operation can be the completion of an operation by the main body, a fixed time period (for example, not allowing enemy penetration of a phase line for two hours), or criteria based on the enemy force (such as size or specific element).

Task-Organization and Augmentation of Security Forces

7-98. The commander is responsible for task-organizing elements to augment the security force as dictated by METT-TC. Depending on the threat's composition and disposition, and the size of the security area, additional combat assets may augment the security force's organic combat power. Additional augmentation also can come from the MI company in the form of ground-based sensors or UAS attachments, engineer augmentation to enhance M/CM/S, or from the fires battalion.

Engagement and Displacement Criteria

7-99. The CAB commander provides general engagement and displacement criteria as a part of the reconnaissance guidance and an extension of the commander's intent. The commander's understanding of the BCT commander's expectations, coupled with the knowledge of the threat's most likely COA, enables the commander to determine the battalion's engagement criteria. The commander might require units only to observe threat actions but not engage the threat; the purpose is to deceive the enemy as to the whereabouts of the screen line. The CAB commander also could opt to engage all threat personnel or lightly armored vehicles on sight, or when conducting stability operations tasks, may stipulate nonlethal weapons.

Guard Operations

7-100. A guard mission is assigned to protect the force by observing the enemy, reporting pertinent information, and fighting to gain time. The guard force differs from a screen force in that it contains sufficient combat power to defeat, repel, or fix the lead elements of an enemy ground force to prevent it from engaging the main body with direct fires. The guard force normally deploys over a narrower front than a comparably sized screening force, allowing greater concentration of combat power. The guard force routinely engages enemy forces with direct and indirect fires and operates in range of the main body's indirect fire weapons. The guard force commander must understand fully the degree of security the guard force provides the larger unit. (See FM 3-98 for more information.) This understanding is critical because, as the battle progresses, the higher unit commander may require the degree of security to change (for example, from early warning to detailed and aggressive security for the main body). There are three types of guard operations conducted in support of a stationary or moving friendly force: advance, rear, and flank guard. (See figure 7-8.)

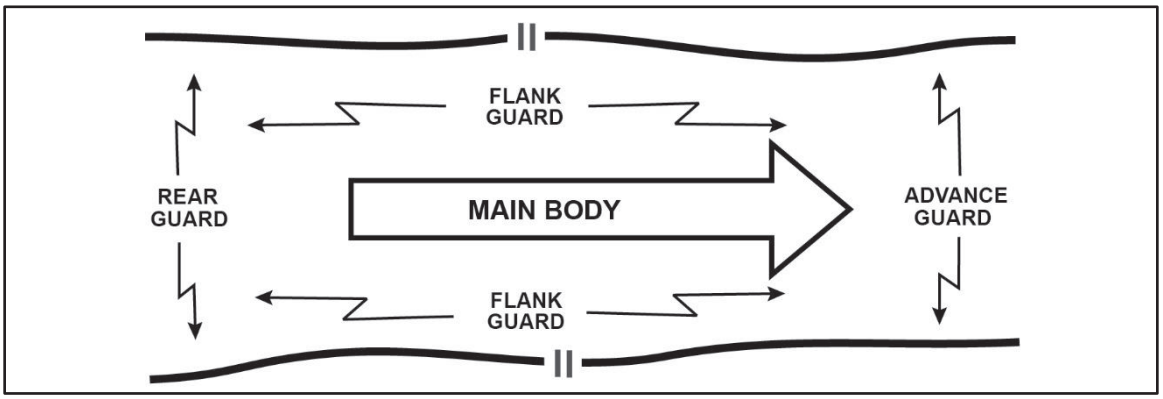


Figure 7-8. Guard operations

Advance Guard

7-101. The advance guard moves ahead of the main force to ensure its advance is uninterrupted, protect the main body against surprise, facilitate its advance by removing obstacles, capturing intact bridges, and enable the main body to deploy.

7-102. Usually, the advance guard functions as an MTC. Generally, a CAB receives an advance guard mission when the BCT moves as part of the division main body in an MTC. In deploying an advance guard, the BCT ensures the CAB has priority of fires from the field artillery battalion. Unlike an MTC, however, the advance guard clears the axis of enemy elements within its capability; this allows the unimpeded movement of the main body forces. The advance guard develops the situation to handover the enemy to the maneuver forces.

7-103. Based on METT-TC, trail elements of the advance guard must ensure they maintain adequate distance forward of the main body's lead elements to ensure freedom of maneuver for the main body. These distances are reduced in restrictive terrain and in low visibility conditions. The CAB commander establishes phase lines to control the movement of the main body and the advance guard. In addition, the battalion commander must take into consideration the range of supporting indirect fires.

7-104. The advance guard force destroys enemy forces through hasty attacks. It may be necessary for the battalion to mass at certain locations, destroy the enemy, report, and continue its mission. If enemy resistance is well prepared and cannot be destroyed, the advance guard reconnoiters to identify a bypass route for the main body, report enemy size and location, and, based on BCT commander's intent, fix and bypass the enemy. It is then the responsibility of follow-on attacking forces to destroy the bypassed enemy. The main body commander can elect not to bypass the enemy, but to attack. In this case, the advance guard keeps the enemy contained and prepares to pass main body elements through to eliminate the enemy.

Rear Guard

7-105. The rear guard protects the exposed rear of the main body. This occurs during offensive operations when the main body breaks contact with flanking forces or during a retrograde. The commander may deploy a rear guard behind moving and stationary main bodies. The rear guard for a moving force displaces to successive battle positions along phase lines or delay lines in-depth as the main body moves. The nature of enemy contact determines the exact movement technique and form of bounding used in the displacement (bounding overwatch with successive bounds or bounding overwatch with alternate bounds or traveling overwatch).

Flank Guard

7-106. A CAB may receive a flank guard mission during a division MTC. If so, the BCT usually augments the CAB with artillery and Army aviation. The flank guard is responsible for clearing the area from the division main body to the flank guard's designated positions. The CAB must be prepared to operate on a frontage that is greater than for other tactical operations. Usually, the area extends from the forward screen, the FLOT to the rear of the moving formation, tying in with the rear guard.

Cover

7-107. The *covering force* is a self-contained force capable of operating independently of the main body, unlike a screen or guard force to conduct the cover task (FM 3-90-2). The covering force, or portions of it, often becomes decisively engaged with enemy forces. Therefore, the covering force must have substantial combat power to engage the enemy and accomplish its mission. The CAB may participate in covering force operations but does not conduct them on its own. The covering force develops the situation earlier than a screen or a guard force. It fights longer and more often and defeats larger enemy forces.

7-108. The CAB is not designed or equipped to conduct a cover on its own. It is likely, however, that the CAB may be assigned a screen or guard (with augmentation) mission in support of an ABCT conducting a cover.

Area Security

7-109. Area security is conducted to deny the threat the ability to influence friendly actions in a specific area or to deny the threat use of an area for its own purposes. Area security actions could include area reconnaissance and security of designated personnel, equipment, facilities (including airfield and seaports), MSRs, LOCs, and critical points. The CAB may be employed as an area security force during stability operations or tasked with area security of a sensitive site during major combat operations. Area security operations may be offensive or defensive in nature.

7-110. Area security may entail occupying and establishing a 360-degree perimeter around the area being secured or taking actions to destroy threat forces already present. Area security operations may require the execution of a wide variety of supporting operations and tasks. Depending on METT-TC factors a CAB may require augmentation in order to conduct area security effectively. The most significant area of augmentation is likely to be in the form of Infantry in order to offset the limited personnel present in the tank companies.

Area Security Procedures

7-111. When conducting an area security mission, the battalion prevents threat ground reconnaissance elements from directly observing friendly activities within the area being secured and prevents threat ground maneuver forces from penetrating the defensive perimeters established by the commander. The commander

may direct subordinate companies to employ a variety of techniques such as OPs, battle positions, ambushes, and combat outposts to accomplish this security mission. A reserve or QRF enables the CAB commander to react to unforeseen contingencies. The exact size and composition of the QRF depends entirely upon the likely threat that the CAB may face. Using information collection and intelligence capabilities available to the battalion and BCT, the battalion can execute ambushes and preemptive strikes proactively and with great precision.

7-112. An analysis of the mission variables determines the augmentation for the CAB. Particular consideration is given to the need for aviation, engineers, and artillery. Early warning of threat activity is paramount when conducting area security missions and provides the commander with time and space to react to threats. Proper information collection planning, coupled with dismounted or mounted patrols and aerial reconnaissance, is key to successful operations, especially when securing fixed sites. Failure to conduct continuous reconnaissance can create a vulnerable seam through which the enemy can execute an infiltration or attack.

7-113. A perimeter is established when the CAB must secure an area where the defense is not tied into an adjacent unit. Perimeters vary in shape and distribution of assets based on the results of IPB and consideration of mission variables. A most probable direction of attack may require extra weighting of that portion of the perimeter to defeat an attack or infiltration.

7-114. Perimeters typically are divided into company or platoon areas with boundaries and contact points. The battalion establishes a screen by integrating OPs, ground-based sensors, UASs, HUMINT, and mounted and dismounted patrols. Tanks, IFVs, and other antiarmor weapons systems (attached or organic) are emplaced on high-speed avenues of approach. Infantry and snipers can observe and cover dismounted avenues of approach. UASs and ground-based sensors provide overlapping information collection capabilities at extended distances from the perimeter. Figure 7-9 depicts a CAB, with engineer augmentation, conducting area security of a small village.

7-115. Most circumstances will not permit establishment of defined, neat perimeters. When a perimeter is not feasible, the CAB secures the area by establishing a presence and conducting operations throughout the area. Companies may establish perimeters around base camps, critical infrastructure, and high-value assets, while other units conduct operations to establish presence, provide security, assist the conduct of stability operations, or provide the minimum levels of security, food, water, shelter, and medical treatment as described in ADP 3-07. The CAB may position reaction forces or disperse its reserve between several secured perimeters. (See ADP 3-37 for more information.) Other missions or tasks in support of area security may include the following:

- Screens along zones of separation or other designated areas.
- Route and convoy security of critical LOCs.
- Checkpoint operations to monitor or control movement.
- Demonstrations to maintain an observable presence.

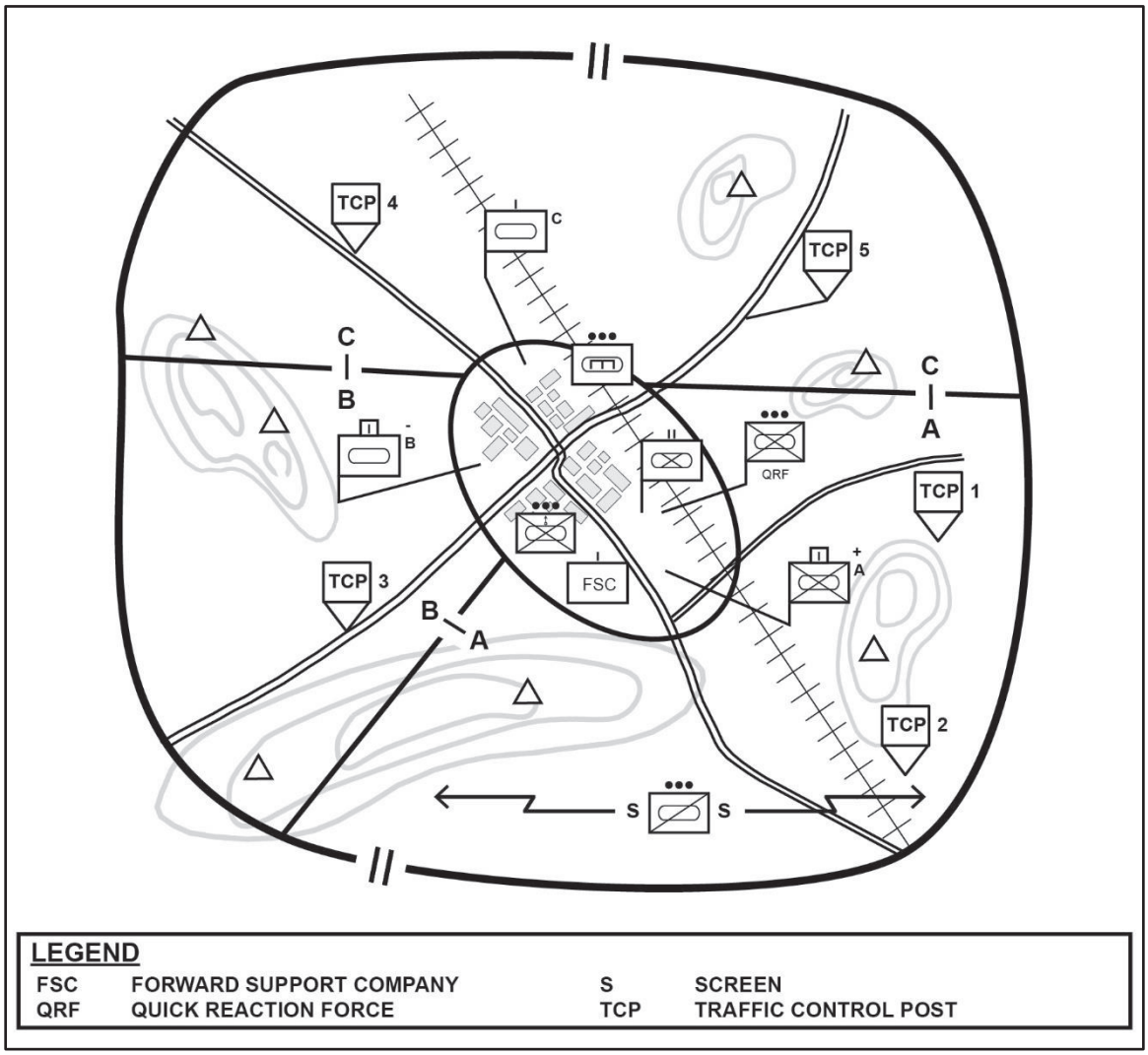


Figure 7-9. Combined arms battalion conducting area security

Local Security

7-116. Local security includes measures taken by units to prevent surprise by the enemy. It involves avoiding detection by the enemy or deceiving the enemy about friendly positions and intentions. Local security is an important part of maintaining the initiative. The requirement for maintaining local security is an inherent part of all operations. Units use active and passive measures to provide local security. Active measures include OPs, patrols, and conducting stand-to. Passive measures include camouflage, noise and light discipline, and sensors to maintain surveillance over the area immediately around the unit.

7-117. Within the CAB, the companies may be responsible for maintaining their own security. They do this by deploying mounted and dismounted OPs and patrols to maintain surveillance and by employing appropriate OPSEC measures. Besides maintaining security for their own elements, the companies may implement local security for other units as directed by the CAB commander. Examples of such situations include, but are not limited to, the following:

- Provide security for engineers as they emplace or clear obstacles or construct survivability positions.
- Secure a helicopter LZ.

- Establish mounted and dismounted OPs to maintain surveillance of enemy infiltration and reconnaissance routes.
- Conduct patrols to cover gaps in observation and to clear possible enemy OPs from surrounding areas.
- Secure HUMINT teams.

Route Security

7-118. Route security is a subset of area security. The purpose of route security is to prevent a threat from attacking, destroying, seizing, containing, impeding, or harassing traffic along the route. It also prevents the threat from interdicting traffic by emplacing obstacles on or destroying portions of the route. Route security operations are defensive in nature and, unlike screen operations, are terrain-oriented.

7-119. Roads and railways may be mined; ambush sites can be located adjacent to the route being secured; or bridges and tunnels can be destroyed by demolitions. Because of the nature of this mission, very long routes may be extremely difficult to secure; however, measures can be enforced to reduce the effect of threat forces.

Route Security Methods

7-120. The following discussion highlights three methods that the CAB can use in executing route security. The method the CAB chooses to use depends on the nature of the threat, purpose of the security mission, and characteristics of the route.

7-121. In the first method, the battalion conducts route reconnaissance at irregular intervals to avoid developing a pattern that the threat may exploit. Companies reconnoiter the route, including conducting patrols to either flank. Attached aviation assets or UAS may reconnoiter before ground units or assist in screening flanks. In addition to reconnaissance, companies or platoons may conduct combined arms operations with engineers conducting route clearance or escort engineers conducting route improvements or maintenance, clearing terrain at potential ambush sites, and repairing damage caused by threat actions.

7-122. The second method entails using an economy of force technique to protect only critical lengths or locations along the route. The battalion or company establishes mutually supporting combat outposts and provides security between them. The battalion or company establishes outposts at critical points to prevent sabotage and to defend against or respond to attacks to interdict the route between outposts. Usually, the unit does not secure or patrol the route outside the reach of the combat outposts. A battalion can provide route security by combining this method at two locations or critical points with patrols along the rest of the route. Combat outposts should include a well-defined fire support plan. Battalion mortars or howitzer sections are positioned so they are capable of massing fires in support of the outposts and the operations between them. Units conduct patrols at irregular intervals between the outposts based on threat trends and recent activities. Patrols must be organized with sufficient combat power to destroy near ambushes and to survive initial threat contact from far ambushes. Each combat outpost maintains a reaction force to respond to threat activity or reinforce patrols.

7-123. The third method is one that the battalion uses if it must take actions to seize or secure terrain needed to permit use along the entire route. The battalion conducts an initial route reconnaissance, with follow-on units establishing a screen to either flank, checkpoints at access points to control access, and combat outposts at critical choke points. As time and forces allow, the battalion establishes defensive positions on key terrain, with subsequent positions prepared to support OPs on the screen. It also establishes checkpoints at intersections, start points, and release points to monitor and control nonmilitary traffic. Checkpoints may also be established at irregular intervals so that troops can stop and search vehicles and personnel. Checkpoints should be situated along the route or in terrain that does not allow travelers to observe and turn away from the checkpoint holding area. As in the second method, the outposts established at critical choke points include sensors to provide early warning from immediate and surrounding areas. All positions must be defensible, with reinforced fighting positions. (See figure 7-10a through figure 7-10e on page 7-27 through page 7-31.) For this example, the BCT must provide the CAB with specialized combat engineer augmentation to perform the inherent route clearance task associated with route security.

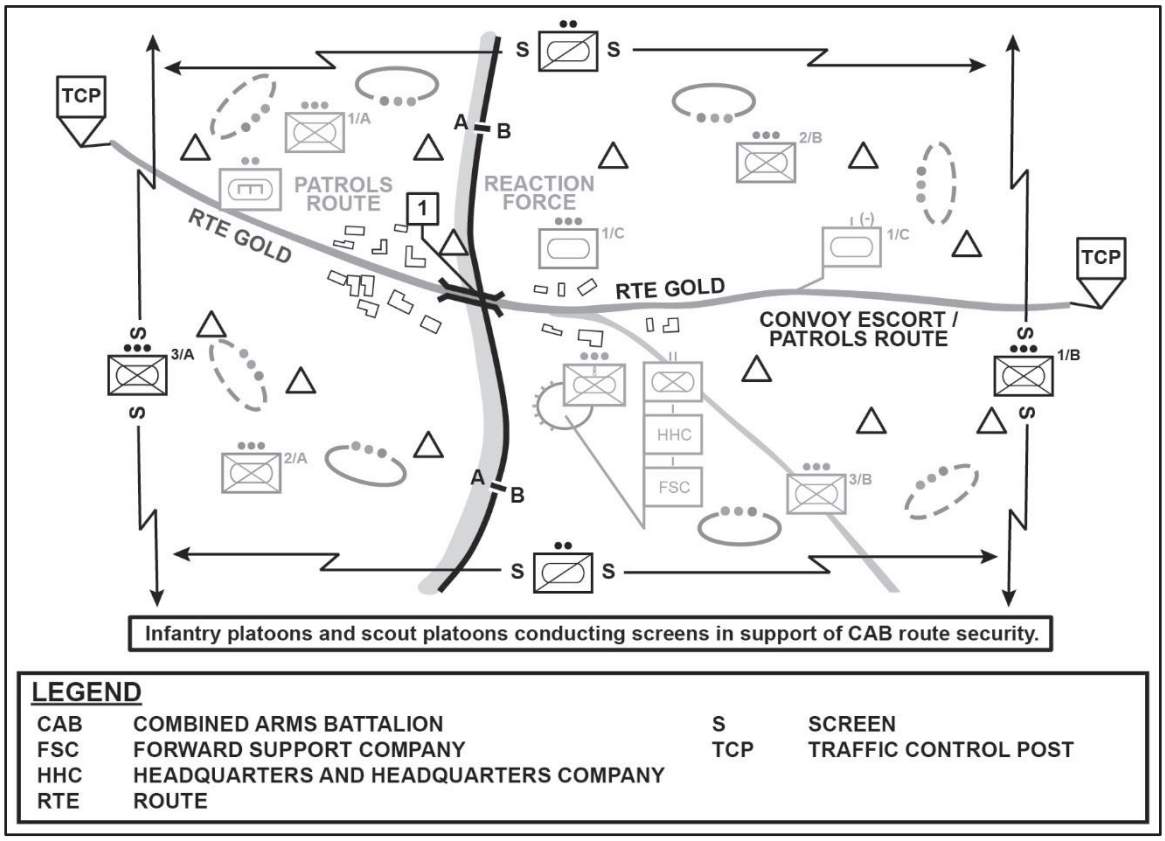


Figure 7-10a. Screen in support of combined arms battalion conducting route security

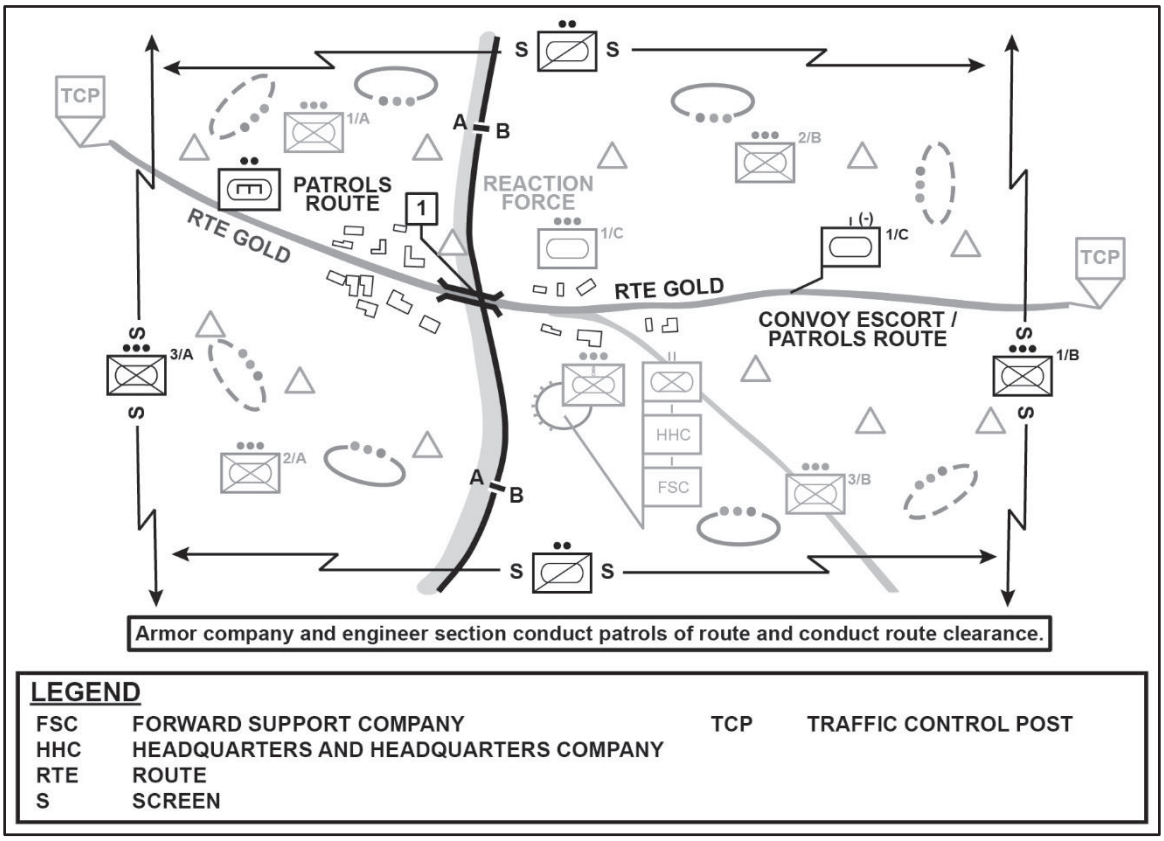


Figure 7-10b. Patrols in support of combined arms battalion conducting route security

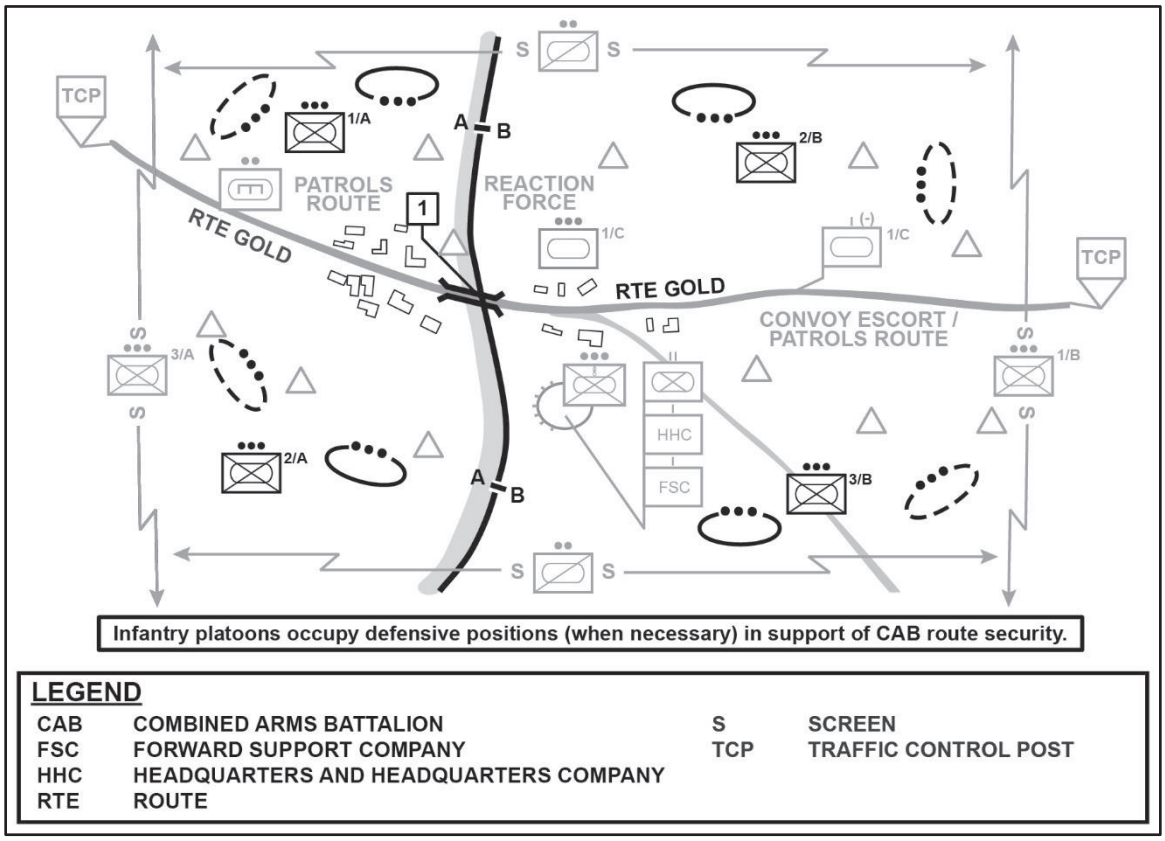


Figure 7-10c. Defensive positions in support of combined arms battalion conducting route security

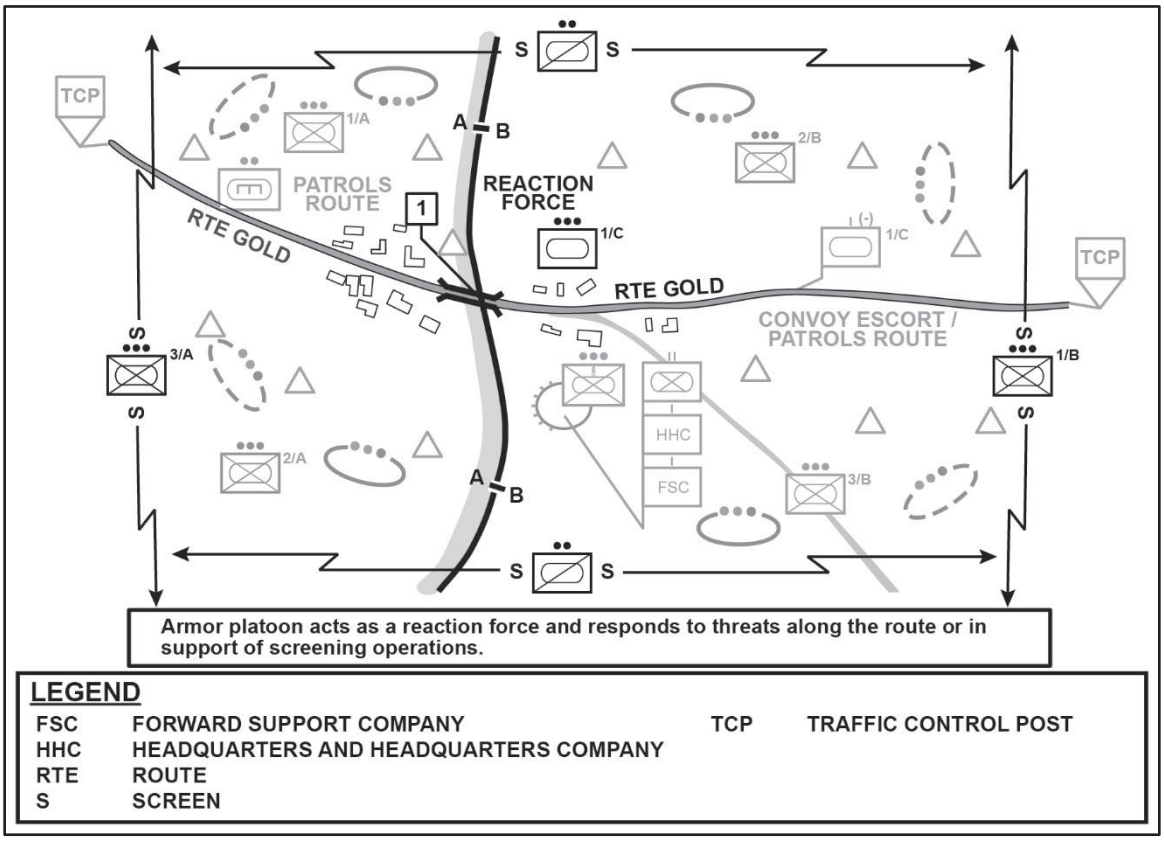


Figure 7-10d. Reaction force in support of combined arms battalion conducting route security

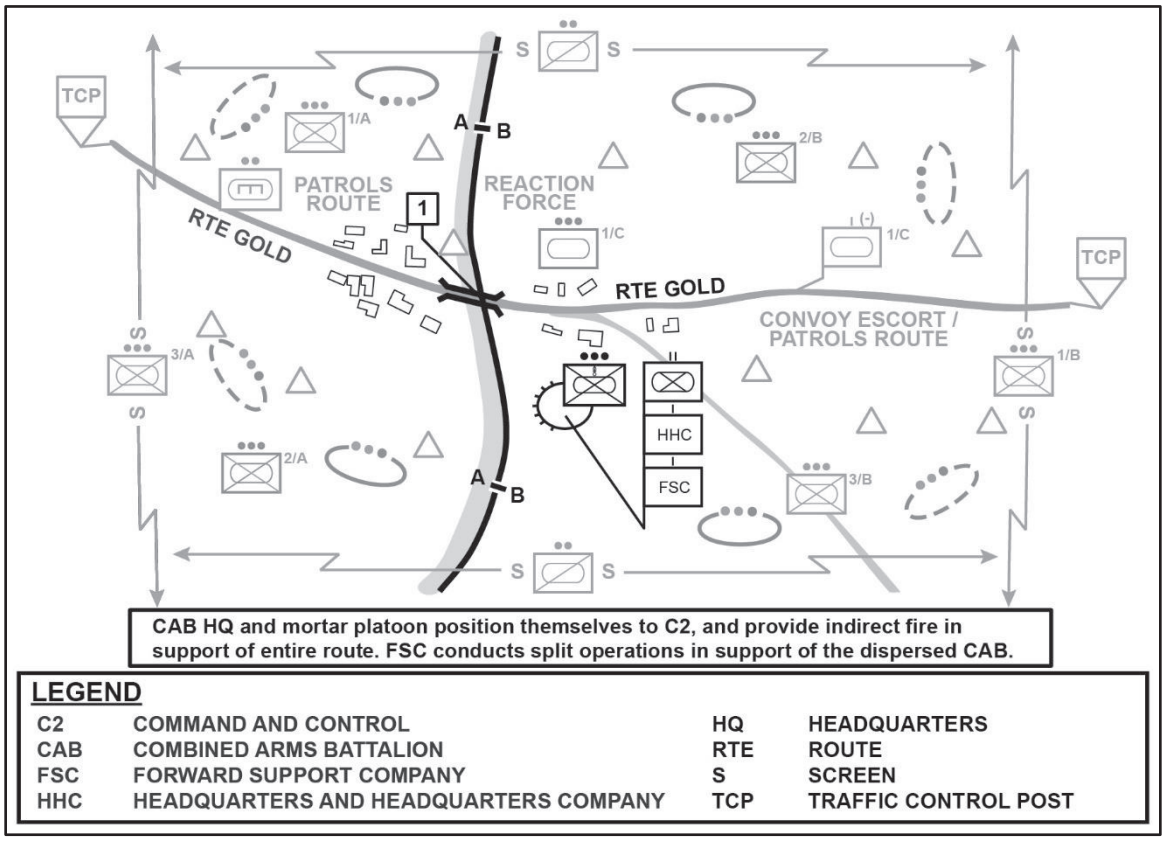


Figure 7-10e. Headquarters and mortars in support of combined arms battalion conducting route security

SECTION II – TACTICAL ROAD MARCH

7-124. A *tactical road march* is a rapid movement used to relocate units within an area of operations to prepare for combat operations (ADP 3-90). Tactical road marches must have a synchronized plan incorporating all warfighting functions. This movement must be planned for as if it were an offensive operation. Although hostile contact is not anticipated, the unit must maintain security measures and be prepared to react to enemy contact. At battalion level and higher, the S-3 is responsible for planning tactical road marches; while the S-4 generally plans administrative moves. (See FM 3-90-2 for more information.)

ORGANIZATION

7-125. The CAB may move independently or as a part of a larger brigade-level road march. The CAB organizes into a march column for a tactical road march. The column is composed of the following four elements:

- Reconnaissance.
- Quartering party.
- Main body.
- Trail party.

RECONNAISSANCE

7-126. The reconnaissance party conducts route reconnaissance of movement routes to determine travel times, bridge and underpass capacities, and trafficability. It identifies critical points, obstacles, and alternate

routes. The scout platoon can perform this role for the CAB by conducting route reconnaissance to the new location, quickly clearing the new AA, and providing security (usually a screen) for the area. UAS coverage and attack or reconnaissance aviation assets from the aviation brigade can assist in reconnaissance and security of the convoy.

QUARTERING PARTY

7-127. A quartering party is a group of unit representatives dispatched to a probable new site before the main body to secure, reconnoiter, and organize the site prior to the main body's arrival and occupation. Unit SOPs establish the exact composition of the quartering party and its transportation, security, communications equipment, and specific duties. The CAB, and, in some cases, separate company size units, form a quartering party that guides the march elements to, and into, the new area. They typically confirm the tentative locations that have been selected by the CAB commander based on a map (or photo) reconnaissance. Quartering parties also act as a liaison between their companies and the CAB headquarters to change unit locations within the AA based on the results of their reconnaissance. The CAB headquarters will employ a separate quartering party for the placement of the HHC support elements and the main CP.

7-128. The quartering party typically includes an officer in charge or noncommissioned officer in charge and representatives from the main CP, trains, and the CAB's subunits. The S-3 air, HHC XO, S-1, S-3 sergeant major, and CSM are potential quartering party leaders. Composition of maneuver company team quartering parties is usually determined by the company team commander but may be specified by the battalion commander. HHC representatives typically include NCOs from key support sections such as communications, maintenance, or supply. Representatives from the mortar platoon and the scout platoon are also represented in the quartering party.

MAIN BODY

7-129. The main body of the march column includes the remainder of the unit, minus the quartering and trail parties. The major elements of the column are march serials and march units. A *march serial* is a major subdivision of a march column that is organized under one commander who plans, regulates, and controls the serial (FM 3-90-2). A serial is usually battalion size. A *march unit* is a subdivision of a march serial. It moves and halts under the control of a single commander who uses voice and visual signals (FM 3-90-2).

TRAIL PARTY

7-130. The trail party follows the main party and conducts emergency refueling, vehicle repair, and recovery. Also, medical personnel with the trail party provide TCCC and MEDEVAC support. They also may have a UAS or aviation asset to view the convoy as part of the security plan.

TACTICAL ROAD MARCH TECHNIQUES

7-131. The CAB may employ the following three march techniques during the tactical road march (see figure 7-11):

- Open column.
- Close column.
- Infiltration.

OPEN COLUMN

7-132. In an open column, the commander increases the distance between vehicles to provide greater dispersion. The vehicle distance varies based upon METT-TC factors. Vehicle distances usually vary between 50 and 100 meters. The open column technique is usually used during daylight. It may also be used at night with infrared lights, blackout lights, or passive night-vision equipment. The open column is the most common movement technique because it offers the most security while still providing the commander with a reasonable degree of control.

CLOSE COLUMN

7-133. In a close column, vehicles are spaced about 20 to 25 meters apart during daylight. At night, vehicles are spaced so that each driver maintains contact with the vehicle ahead. Close column usually is used for marches during darkness under blackout driving conditions, and in restricted terrain. This method of marching takes maximum advantage of the traffic capacity of a route but provides little dispersion.

INFILTRATION

7-134. During a move by infiltration, vehicles are dispatched in small groups or at irregular intervals at a rate that keeps the traffic density down and prevents undue massing of vehicles. Infiltration provides the best possible passive defense against enemy observation and attack. It is suited for tactical road marches when there is enough time and road space and when the commander desires the maximum security, dispersion, and deception. The disadvantages of an infiltration are that more time is required to complete the move, column control is nearly impossible, and recovery of broken-down vehicles by the trail party is more protracted when compared to vehicle recovery in close and open columns. In addition, unit integrity is not restored until the last vehicles arrive at the destination, which complicates the onward deployment of the unit.

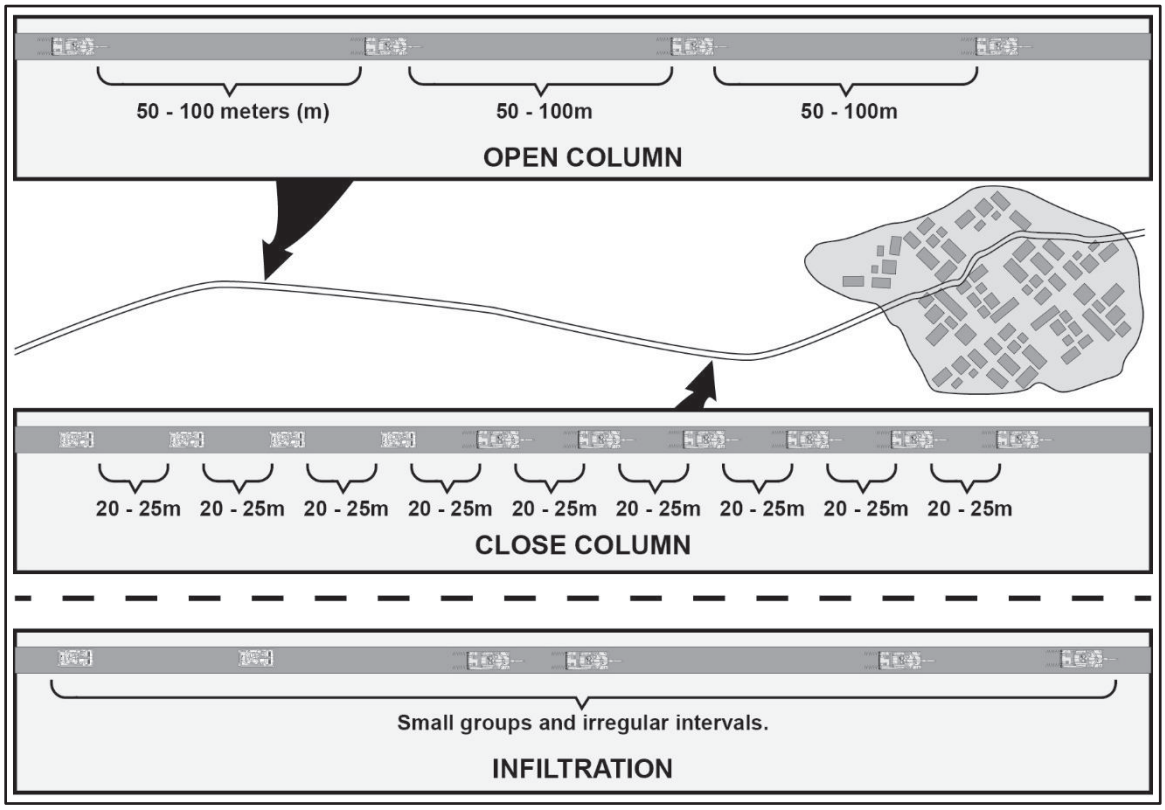


Figure 7-11. Tactical road march techniques

SECTION III – RELIEF IN PLACE

7-135. A relief in place is an operation in which one unit replaces another in combat. The incoming unit assumes responsibility for the mission and the assigned AO. Units usually execute relief operations during limited visibility to reduce the possibility of detection. To facilitate and ensure successful operations, the linkup and relieved force commanders and staffs exchange as much information as possible. This prevents the inadvertent engagement of friendly forces by either direct or indirect fire systems during relief operations. Collocation of CPs for both types of units is recommended during the relief.

PLANNING CONSIDERATIONS

7-136. On receipt of the order to conduct the relief, the incoming CAB commander and staff establish continuous communications with the stationary unit. This is done primarily through an exchange of liaison personnel and a digital exchange of information pertinent to the relief operations (for units in the same digital architecture). Commanders and staffs emphasize communications, reconnaissance, and transfer of command. If possible, the relieving unit's main CP should collocate with the main CP of the unit to be replaced. This facilitates continuous information exchanges relative to the occupation plan, fire support plan, and intelligence updates, which include past, present, and probable enemy COAs. Although digitization allows coordination without physically locating together, face-to-face coordination reduces any potential misunderstanding related to relief preparation or the forthcoming operations. Units transfer responsibility for the area as directed by the senior common commander, usually when the incoming unit has a majority of its fighting force in place, and all communications systems (voice and digital) are operating.

TRANSFER OF INFORMATION

7-137. Before contact with the stationary unit, the relieving force digitally receives the combined arms graphics, FSCMs, obstacles, linkup points, signals, and current enemy situation by way of overlays (digital or analog). Analog units should exchange this information through liaison personnel and conventional acetate overlays.

FRATRICIDE AVOIDANCE

7-138. When planning the relief, the battalion staff should consider the realities of risk management and fratricide avoidance in determining the most appropriate method for executing the relief. Digital C2 platforms and the battlefield combat identification system aid in differentiating friendly from enemy as units conduct the linkup and passage of lines. This greatly reduces fratricide potential and expedites forward movement since the relieved force can monitor the progress of the linkup force. The relieved force can provide protective fires or adjust fire control measures predicated on the speed with which the linkup force is moving.

7-139. Vehicle marking for identification purposes becomes even more important when either the stationary or passing unit uses equipment similar, or identical, to the enemy. Vehicle marking may be only be temporary during the actual conduct of the passage of line or more permanent for the duration of the operation. Markings should be visible under limited visibility conditions and easily identifiable through day and thermal optics. Regardless, both the passing and stationary unit must know what the markings are in order to avoid fratricide.

TECHNIQUES FOR CONDUCTING A RELIEF

7-140. There are three techniques for conducting a relief: sequentially, simultaneously, or staggered. A *sequential relief in place* 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 (ADP 3-90). A *simultaneous relief in place* occurs when all elements are relieved at the same time (ADP 3-90). A *staggered relief in place* occurs when the commander relieves each element in a sequence determined by the tactical situation, not its geographic orientation (ADP 3-90). (See ADP 3-90 for more information on all three methods.)

SEQUENTIALLY

7-141. This method is the most deliberate and time-consuming of the relief methods. It involves sequentially relieving maneuver companies one at a time. The CAB plans separate routes to the rear of the relieved companies' locations for each maneuver company and places these plans on the operations overlay. To avoid cluttering the C2 digital display, only the routes of the relieving force are included on the operations overlay. The CAB labels routes sequentially to correspond to the order in which the company will use the routes during the relief. When the lead relieving company reaches its release point, its platoons move to the positions they will occupy. Crews exchange range card and fire support information, and the relieved unit then moves to the rear to its next location. When the lead relieving company is in position, the next relieving company moves along its designated route to relieve its counterpart, repeating the relief process. This process

repeats until each company has been relieved. If the BCT directs a transfer of supplies from the relieved unit, the battalion S-4 coordinates a transfer point to execute the exchange.

SIMULTANEOUSLY

7-142. This method is the fastest, but it risks revealing friendly unit intentions. To expedite the relief, the in-place battalion prepares digital overlays to depict current friendly graphics, fire support measures, and the latest enemy situation update. These overlays are passed to the relieving force before the two forces make contact. Once the two command groups collocate and exchange plans, relief occurs at the same time at each location. The units of the relieving and relieved battalions execute a move at the same time along different routes. Relieved units withdraw as soon as they are relieved, and do not wait for other units of the battalion to be relieved. The control measures at the battalion level are identical to those used for a sequential relief (one unit at a time).

STAGGERED

7-143. This technique requires sufficient terrain to accommodate positioning of two similarly sized units at the same time. In this case, the relieving unit must locate where it can observe and provide protective direct and indirect fires for the relieved unit using the relieved unit's fire plans. This procedure requires that relieving company and battalion commanders conduct a detailed physical reconnaissance of the position occupied by their in-place counterparts. The relieving commanders and staffs enter operational information gathered from the physical reconnaissance on operations overlays and share them throughout the relieving unit during the planning process.

COMMAND AND CONTROL DURING THE RELIEF

7-144. During the relief, the command group and the staff in the main CP monitor the progress of the relief through C2 systems and their personal observations. To facilitate uninterrupted fires and effects to support the relief, indirect-fire assets should be the last units relieved regardless of the relief technique used. Throughout this process, the battalion may have to observe radio-listening silence until control of the position passes to the commander of the relieving force. When the companies are set, and the relieved unit withdraws from the position, company commanders send the battalion S-3 a spot report indicating that the company is defending.

7-145. If either force makes direct fire contact with an enemy force during the relief, it immediately notifies the other unit and the higher headquarters by voice communications. It then follows-up this voice report with a digital-contact or spot report, so that the precise location of the enemy force (enemy icon) is displayed on the digital platform in use.

Note. If responsibility for the AO has not passed, the relieving unit becomes OPCON to the relieved unit. The assets and staff of the relieved unit become OPCON to the relieving unit when the responsibility for the AO has passed to the relieving battalion.

LINKUP

7-146. A *linkup* is a meeting of friendly ground forces, which occurs in a variety of circumstances (ADP 3-90). A linkup will usually require a passage of lines. Linkup can occur when two or more friendly forces—

- Complete the encirclement of an enemy force.
- Assist breakout of an encircled friendly force.
- Join an attacking force with a force operating in the enemy's rear area.
- Make contact with other forces on a noncontiguous battlefield.

METHODS OF LINKUP

7-147. There are two linkup methods, the first of which involves the linkup of a moving force with a stationary force. Under these circumstances, the moving force usually has linkup points near the RFL, or LOA, near the stationary force's security elements. The other method occurs when there are two moving forces. This is usually an indicator of a fluid operation, which requires the detailed coordination and effective communication to avoid fratricide.

LINKUP OF A MOVING FORCE WITH A STATIONARY FORCE

7-148. To ensure the friendly forces join without engaging one another, the commander of the linkup force designates the linkup points. These linkup points are at locations where the axis of advance of the linkup force intersects the security elements of the stationary force. These points must be readily recognizable to both forces and should be posted on digital overlays and conventional maps in case of digital communications loss. Alternate points are chosen so the units are prepared in case enemy activities cause linkup at places other than those planned. The number of linkup points selected depends on the terrain and number of routes used by the linkup force.

7-149. The S-6 section is critical to linkup operations. Digital communications are used to transmit and share combat information data. However, use of digital means depends on METT-TC factors and the ability to maintain digital linkages between the moving unit and stationary unit.

7-150. To facilitate a rapid passage of lines and to avoid inadvertent engagement of friendly forces, personnel in the linkup force must be thoroughly familiar with recognition signals and plans. As required, stationary forces assist in the linkup by opening lanes in minefields, breaching or removing selected obstacles, furnishing guides, providing routes with checkpoints, and designating AAs.

7-151. When linking up with an encircled force, the CAB carries as much supply material as possible during the linkup operation. This material includes classes I, III, V, and VIII. If an enemy force has encircled the stationary force, the battalion carries additional supplies and material requested through to the BCT S-4 before the linkup takes place. The CAB S-4 ensures that each company has received the digital sustainment overlay depicting MSRs, traffic control points, AXPs, and MCPs.

LINKUP OF TWO MOVING UNITS

7-152. Linkup between two moving units is one of the most difficult operations. It is usually conducted to complete the encirclement of an enemy force. Primary and alternate linkup points for two moving forces are established on boundaries where the two forces are expected to converge. As linking units move closer, positive control is coordinated to ensure they avoid firing on one another and to ensure the enemy does not escape between the two forces. Again, using digital systems facilitates planning, synchronization, execution, and fratricide avoidance. However, digital architecture limitations may mandate that analog procedures be the primary method of coordination.

PLANNING A LINKUP OPERATION

7-153. The linkup is a complex operation requiring detailed planning and coordination. Plans for a linkup are coordinated as far in advance as possible. The two forces carefully define and coordinate their schemes of maneuver with attention given to graphic control measures, communications, and the subsequent mission to be performed by each force after linkup operations are completed. Alternate linkup points are planned and lend flexibility to the overall operation.

7-154. Before commencing a linkup operation, the headquarters elements of the stationary force and linkup force must share data including COMSEC procedures and digital graphic overlays consisting of the following:

- Primary and alternate linkup points.
- Checkpoint and waypoint information.
- Unit disposition and activity (friendly and enemy).

- Locations and types of obstacles.
- Fire control measures, and FSCMs, including RFL.

7-155. The two units establish liaison during planning and continue it throughout the operation. Liaison parties must have the capability to communicate digitally with their parent unit. As the distance closes between the forces, the requirement to track movement through digital platforms and maintain close liaison coordination increases. Use of Army aircraft can improve and expedite this process.

7-156. Linkup operations frequently require a passage of lines. Once through friendly lines, the CAB moves out as in an exploitation to affect the linkup. Speed, aggressive action, and boldness characterize this action. If possible, the linkup force avoids enemy interference with its mission and concentrates its efforts on completing the linkup. If enemy forces threaten the successful accomplishment of the mission, they are either destroyed or bypassed and reported.

7-157. The BCT headquarters directing the linkup operation must establish command relationships and responsibilities for the forces involved. Both the linkup force and the force with which linkup is to be made should remain under the control of the directing headquarters. Operational plans must prescribe the primary and alternate day and night identification and recognition procedures, vehicle systems, and man-made materials used to identify friend from enemy.

7-158. When the BCT directs a linkup operation, it usually establishes an RFL for both battalions to ensure positive control and reduce the risk of fratricide. It transmits these RFLs to both units by way of a digital overlay, and they are subsequently adjusted and overlays updated as one force moves toward the other. This process continues until a single RFL is established between the forces. Usually, this is the point on the ground where the two forces plan to establish contact.

COMMUNICATIONS DURING LINKUP OPERATIONS

7-159. The stationary and linkup force must maintain positive control during linkup operations to prevent inadvertent fratricidal engagements. It uses the available C2 systems as required to share combat information and to positively identify friend from foe. It is imperative that both the linkup and stationary units conduct precombat communications checks before the operation begins to ensure that connectivity and interoperability between digital systems are established and maintained.

7-160. The S-6s of the two linkup units are integral to successful linkup operations when both units are digitally equipped. These officers must ensure that units address primary and alternate forms of communications during planning and that they synchronize manual and digital systems used in support of the linkup operation and integrate these into the linkup plan.

DIGITAL TECHNIQUES FOR A LINKUP OPERATION

7-161. Depending on the enemy situation and METT-TC, the initial conduct of the linkup operation may be identical to an exploitation or attack. During the operation, the BCT commander monitors the progress and execution through data passed using the C2 systems to ensure positive control measures established are followed or adjusted as required. Adjustments made to the OPORD are coordinated and synchronized by way of digital systems. If a FRAGORD is passed by voice radio, a digital follow-up is entered and transmitted through digital platforms to ensure all units are aware of the change.

7-162. As the linkup forces begin their approach, they establish digital and voice radio communications and maintain them throughout the operation. As each force maneuvers, progress is tracked by way of digital C2 systems, and adjustments to the linkup plan are made as METT-TC dictates. For example, if two forces are involved in the operations and one is unable to travel at a speed commensurate with the plan, the linkup location may require adjustment.

7-163. The CAB fires cell changes or activates FSCMs established for the operations based on the progress of the forces and the enemy situation. All changes are provided to the fires cell of the maneuver units involved in the linkup through digital C2 systems or the AFATDS. As the maneuver units draw closer to one another, CFLs are canceled and an RFL is placed into effect to prevent fratricide between the converging forces. Once the linkup has occurred, fire support is organized as per the higher headquarters OPORD.

7-164. The CAB commanders position themselves to observe the progress of the operation and maintains digital and voice radio communications with the S-3. Effective digital communication provides the commander flexibility in positioning in order to maintain a COP of maneuver units and adjust the linkup plan as required. The S-3 is positioned based on the operational concerns expressed by the battalion commander. For example, if a certain flank is of concern to the commander during the operation, or a supporting attack is required to penetrate the enemy's lines, then the battalion S-3 is located at the best influence area for the battalion's secondary action. When the linkup is complete, the linkup force may join the stationary force, pass through the stationary force, go around the stationary force, or continue the attack.

SECTION IV – PASSAGE OF LINES

7-165. A *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 (JP 3-18). Units usually conduct forward or RPOL when at least one METT-TC factor does not permit the bypass of a friendly unit. A *forward passage of lines* occurs when a unit passes through another unit's positions while moving toward the enemy (ADP 3-90). A *rearward passage of lines* occurs when a unit passes through another unit's positions while moving away from the enemy (ADP 3-90).

7-166. A passage of lines is a complex operation requiring close supervision and detailed planning, coordination, and synchronization between the battalion commanders of the unit conducting the passage and the unit being passed. The primary purpose of a passage of lines is to transfer responsibility (forward or rearward) for an area from one unit to another. Units can conduct a passage of lines to—

- Sustain the tempo of the offense.
- 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.

ORGANIZATION OF FORCES

7-167. A passage of lines does not require a special task-organization. Both the passing force and the stationary force maintain their previous combat organization during the passage. A forward passing unit's order of march is generally reconnaissance (scouts) and security elements first, followed by ground combat forces, support elements (engineers, artillery), and then sustainment forces.

PLANNING

7-168. The ABCT plans and conducts a battalion-level passage of lines. Units involved in a passage of lines must conduct detailed coordination to ensure they maintain positive control to avoid fratricide, speed the passage, and reduce vulnerability to enemy attack. The S-2 leads the staff in IPB, and the S-3 prepares a concept of operations based on stationary force restrictions, the IPB, and parameters established by the battalion commander. The S-3s of the passing battalion and stationary battalion coordinate routes, checkpoints, linkup points, and passage points. Planners must evaluate the following basic considerations and integrate them into the planning process:

- Terrain management and control measures. Terrain management is critical to successful completion of a passage of lines. Terrain is controlled through the sharing of digital overlays common operational graphics that contain the following:
  - Routes (primary and alternate).
  - Checkpoint data.
  - Friendly and enemy unit locations and status.
  - Passage points.
  - Contact points.
  - FSCMs.
  - Obstacle types and locations.
  - Sustainment locations and descriptions.

- Liaison. Stationary and passing battalions exchange information by way of extensive and detailed coordination and liaison before mission execution.
- Communications. Communication architectures, digital systems, COMSEC instructions, recognition signals, and communications procedures and requirements must be identified, synchronized, and integrated into the OPORD. Communications ensure units share data and pertinent combat information and maintain a COP.
- Mission transition. Plans for the conduct of the passage must facilitate transition to the subsequent missions of the passing and stationary battalions.
- Exchange of AO control. Control of the AO passes from one battalion to the other at a time and place directed by the higher common commander or as mutually agreed on by the stationary and passing battalion commanders.
- Routes. The passing battalion moves on multiple routes through the passed battalion and avoids the use of AAs. It does not halt within the passed battalion's forward positions.
- Employment of deception obscuration. Deception obscuration operations can deceive the enemy as to actual unit locations, passage points, or actual activity and intention of U.S. forces pertaining to the conduct of current or near-term military operations.
- Control measures. Established graphic control measures can ensure positive control of the stationary and passing units.
- Location of stationary battalion and obstacles. The location and obstacle emplacement of the stationary battalion may influence planning and execution of the passage of lines.

7-169. The terrain and number of the passage lanes determine the speed and disposition of the passing battalion as it crosses the LD. When conducting a forward passage in preparation for a deliberate attack, it may be important to create passage lanes with sufficient width to allow the passing force to move in a tactical formation appropriate to the operation.

FIRE SUPPORT

7-170. The passing battalion FSO reviews the fire support plan of the stationary unit and conducts direct coordination to ensure that a clear understanding exists between the passed and passing units on the established FSCMs. The FSO does so through the transfer of digital fire support overlays between the two fires cells via AFATDS. The maneuver commander identifies and approves procedures to establish fire support battle handover or transfer of control. Terrain and route management for artillery batteries and their support assets are especially important due to potential terrain limitations and must be coordinated at the BCT level. All artillery units, including reinforcing units, must be positioned to support the passage if enemy contact is possible during the operation.

ENGINEER SUPPORT

7-171. A passage of lines may require either the reduction of some obstacles or the opening and closing of lanes through friendly obstacles. The passing and stationary engineers must coordinate via digital means or face-to-face meeting. At a minimum, this coordination must address the following:

- Location and status of friendly and enemy tactical obstacles.
- Routes and locations of lanes and bypasses through friendly and enemy obstacles.
- Responsibility to close lanes through obstacles.
- Transfer of obstacle and passage lane responsibilities.
- Description of lane marking materials.
- Description of far and near recognition markers.

SUSTAINMENT SUPPORT

7-172. The sustainment plan is integral to a successful passage of lines. Sustainment assets are positioned to support the passage. MCPs and emergency refueling points are positioned where they can best keep lanes open and vehicles moving.

7-173. Conducting a passage of lines presents a challenge for the medical planner. There will be a number of MEDEVAC units using the same air and road networks. Coordination and synchronization are essential if confusion is to be avoided. The medical elements of the stationary force should provide area support to the force passing through; this allows continued mobility for the moving force. Examples of information that should be coordinated include the following:

- Radio frequencies and call signs.
- OPORD and TACSOP.
- Location of MTFs.
- Location of casualty collection points and AXPs.
- MSRs, forward arming and refuel points, and airspace control data.
- S-2 updates including areas of previous and anticipated attacks or ambushes or engagements.

FORWARD PASSAGE OF LINES

7-174. In a forward passage of lines conducted as part of a BCT attack, the stationary and passing battalion commanders must be aware of the passing battalion's objective. This awareness is especially important if the stationary battalion must provide supporting fires. The stationary battalion and forward passing unit, through an exchange of combat information, share data needed to affect a passage of lines in a timely and safe manner. (See figure 7-12.)

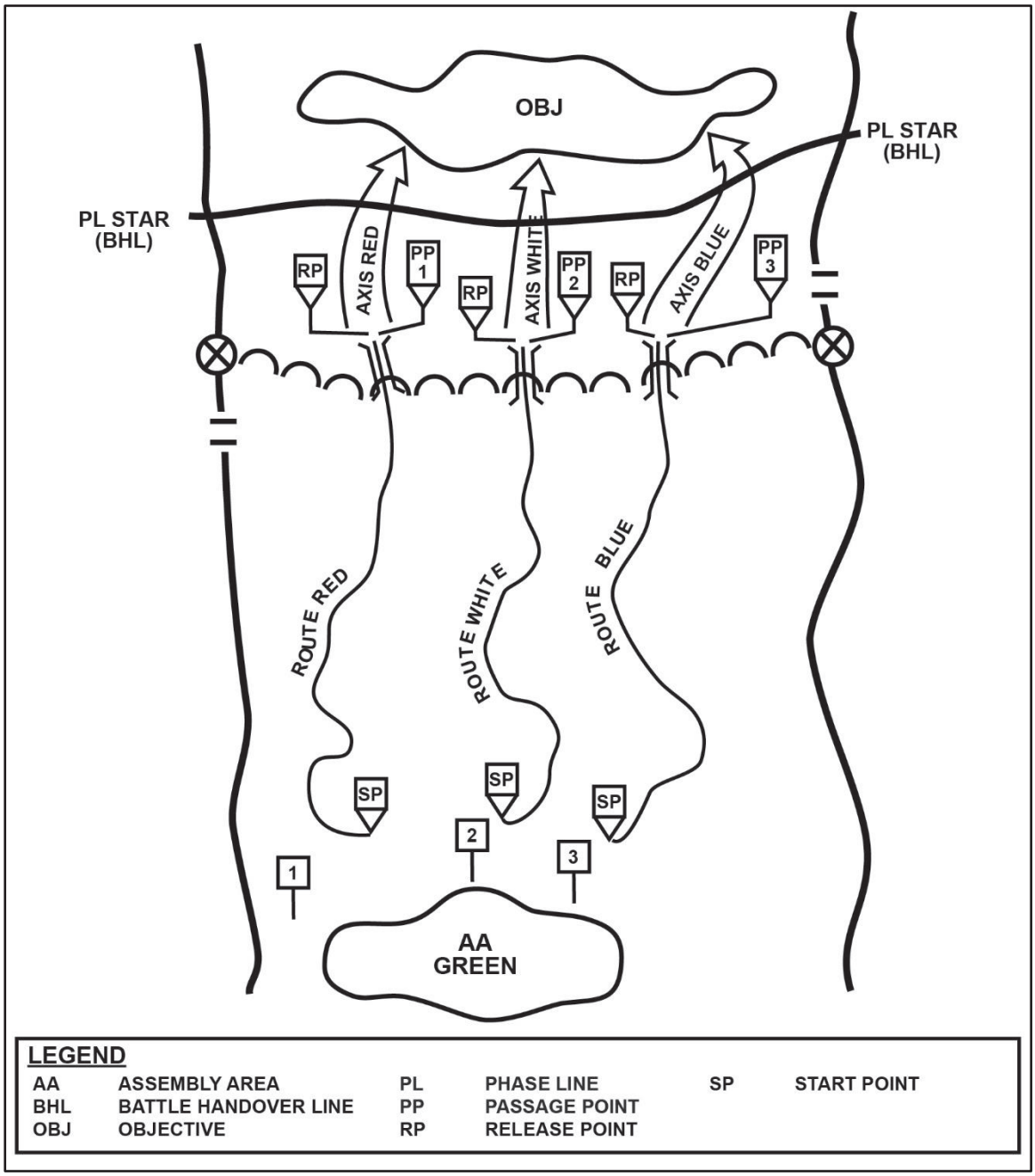


Figure 7-12. Forward passage of lines

7-175. On receipt of an order, the passing battalion commander begins preparing the passage of lines plan by conducting a reconnaissance while concurrently updating the information received from the stationary battalion. For example, the passing CAB receives a digital operations overlay that delineates routes to the contact points as well as the location of the actual linkup site. The battalion commander and staff of the passing unit meet representatives from the stationary battalion at designated contact points to conduct coordination. During the physical reconnaissance, the passing battalion S-3 updates the initial operations overlay, incorporating information received from the stationary battalion by adding pertinent control measures. On completion, the passing battalion S-3 forwards this overlay to the main CP. Based on this information, the passing battalion staff completes development of the plan. Once approved by the battalion

commander, additional control measures are added to the operations overlay as necessary to complete the plan.

7-176. The passing battalion main CP transmits the validated operations overlay update containing information from the stationary and passing battalions, BCT, and subordinate units to the liaison teams. This technique enables the passing S-3 and battalion commander to develop their scheme of maneuver for the passage of lines on a digital overlay concurrent with reconnaissance. At the conclusion of the reconnaissance and subsequent coordination with the stationary battalion, the revised passing battalion plan is distributed digitally by the battalion headquarters using digital C2 systems.

REARWARD PASSAGE OF LINES

7-177. Typically, an RPOL occurs within a defensive framework in which elements of the security force (for example, a Cavalry squadron) operate forward of the MBA. Forces within the MBA are the stationary unit in RPOL. The covering force withdraws through them, handing off control of the fight at the BHL. (See figure 7-13.)

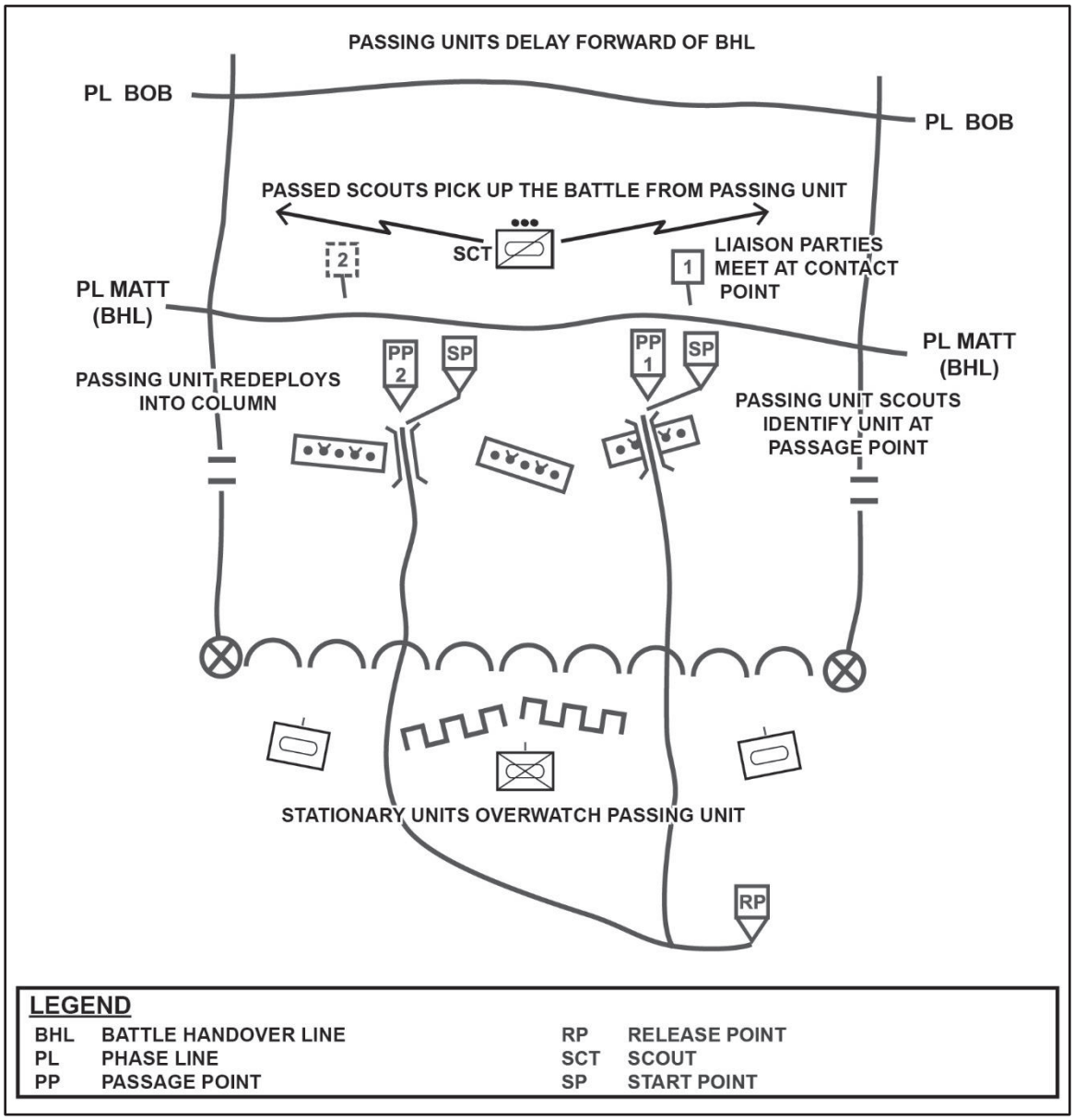


Figure 7-13. Rearward passage of lines

7-178. To facilitate an RPOL, the stationary force commander develops an overlay showing the following:

- BHL.
- Contact points forward of the BHL.
- Passage points along the FEBA.
- Lanes to the rear of the MBA.
- Once the overlay is prepared, the stationary commander transmits it and any amplifying information to the passing force commander by way of digital C2 systems.

7-179. During a passage of lines, friendly unit density in a relatively small maneuver space may cause problems in the ability of the commanders to maintain the COP in relation to the passed and passing units. The stationary and passing commanders should determine the best method of exercising mission command to avoid slowing the tempo of the operation and to reduce fratricide potential.

REHEARSAL

7-180. During the rehearsal, the battalion commander ensures that each organization knows when and where to move as well as how to execute the required coordination. Digital communications checks ensure connectivity and interoperability. Other rehearsal items include the following:

- Fire support observation plan, target execution, communication linkages, and mutual support operations.
- Confirm FSCMs.
- Review unit routes and positioning.
- Locations and descriptions of obstacles, lanes, bypasses, and markings.
- Passage points, routes, and recognition procedures. Verify these and review number of vehicles by type expected at each passage point.
- Confirm route management, contact points, and use of guides.
- Locations for and movement of sustainment units. Arrange for mutual support and any transfer of supplies.
- Locations of aid stations, AXPs, and CASEVAC procedures.

SECTION V – BATTLE HANDOVER

7-181. Battle handover is a coordinated operation executed to sustain continuity of the combined arms fight and to protect the combat potential of both forces involved. Battle handover is usually associated with the conduct of a passage of lines.

BATTLE HANDOVER PLANNING

7-182. Battle handover can occur during either offensive or defensive operations. During defensive operations, it is usually planned and coordinated in advance to facilitate execution and usually involves an RPOL. In the offense, it is situation dependent and often initiated by a FRAGORD. Battle handover usually occurs in the offense when one unit passes through or around another unit. TACSOPs containing clear, simple, standardized procedures, and control measures enhance the ability of units to coordinate without experiencing a corresponding loss in momentum.

7-183. Battle handover occurs along a line forward of the stationary force. The BCT commander establishes this line in coordination with stationary and passing battalion commanders. The stationary battalion commander usually determines the BHL location. This line is forward of the FEBA in the defense or the FLOT in the offense. The BHL is located where elements of the passing CAB can be effectively overwatched by direct fires or supported by indirect fires of the forward combat element of the stationary CAB until the battle handover is complete.

7-184. Physical handover usually occurs near the BHL. Events may dictate that a force break contact forward of or behind the BHL; for example, when there is a gap between echelons of the attacking enemy force. Close coordination (physical, digital, or voice) between the battalions involved in the handover allows them to coordinate and execute this process at the small-unit level.

BATTLE HANDOVER FLOW

7-185. The battle handover operation begins on order of the brigade commander of the units involved or when a given set of conditions occurs. Defensive handover is complete when the passing battalion is clear and the stationary battalion is ready to engage the enemy. These actions may occur at the same time. Offensive handover is complete when the passing battalion crosses the BHL. The BHL is usually considered the LD for the attacking battalion. Until the handover is complete and acknowledged by the commanders, the battalion commander in contact is responsible for coordinating the fight.

7-186. Coordination for battle handover flows from the battalion commander out of contact to the battalion commander in contact. The coordination for a battle handover overlaps with the coordination for a passage

of lines; the coordination for both should be accomplished at the same time. The CAB TACSOP should outline these coordination requirements to facilitate rapid accomplishment.

7-187. Digital information systems assist the battalion staff in its coordination and synchronization efforts for the operation. Each unit transmits or delivers a complete copy of its OPORD and overlays by either digital or analog means. Any changes made after initial distribution are updated immediately. The coordination between the two commanders involves—

- Establishing digital and voice radio communications.
- Providing updates of friendly and enemy situations (digital, voice, and graphical).
- Coordinating passage points and routes and ensuring these are displayed on operational overlays (digital and analog).
- Collocating CP and exchanging liaison personnel (if required).
- Coordinating fires (direct and indirect) and ensuring the direct fire control measures and FSCMs display on operational overlays (digital and conventional).
- Providing updated obstacle overlays including self-destruct date-time groups of emplaced FASCAM obstacles and reserve demolitions in the affected AO.
- Determining the need for and dispatching contact point representatives.
- Establishing and coordinating recognition signals.
- Exchanging locations of obstacles and related covering fires.
- Exchanging route information to include way points.
- Determining sustainment requirements.

7-188. Due to the fluid nature of a battle handover, commanders can use digital systems to speed the planning, coordination, and execution processes. Units should plan voice radio; if digital capabilities are hampered, then units should use FM to coordinate and execute battle handovers.

SECTION VI – ASSEMBLY AREA OPERATIONS AND TASKS

7-189. An AA is a location where a force prepares or regroups for further action. While in AAs, units execute the organization, maintenance, resupply, and personnel actions necessary to maintain the combat power of the force.

7-190. Certain tasks are associated with planning, occupying, and operating an AA, largely as a matter of TACSOP. The circumstances in which the AA is occupied dictate to what extent these tasks are performed. AA tasks include—

- Site selection.
- Quartering party.
- Occupation.
- Security.
- Departure.

SITE SELECTION

7-191. Although AAs are generally secure from enemy interference, commanders must consider the possibility of enemy attacks or observation. AAs should provide the following:

- Concealment from air and ground observation.
- Cover from direct fire.
- Terrain masking of electromagnetic signal signature.
- Sufficient area for the dispersion of subunits and their vehicles consistent with the enemy and friendly tactical situation.
- Areas for unit trains, maintenance operations, and CPs.
- Suitable entrances, exits, and internal routes. (Optimally, at least one all-weather paved surface road transits the AA and connects to the MSR in use.)

- Terrain allowing the observation of ground and air avenues of approach into the AA.
- Good drainage and soil conditions that support unit vehicle movement.

QUARTERING PARTY

7-192. Quartering parties have four responsibilities: conducting reconnaissance (if reconnaissance parties are not used), securing the area, organizing the area, and guiding arriving units. During tactical unit movement, the reconnaissance party can perform area reconnaissance as a follow-on mission.

7-193. An area reconnaissance is performed to determine suitability of the area. The quartering party also provides initial security of the area until the main body arrives. Aerial reconnaissance (UAS) can help the quartering party secure the AA by conducting screening missions and surveillance of possible threat avenues of approach. Organizing the area includes selecting and marking unit and vehicle positions, improving and marking routes, and marking or removing obstacles. Guide duties include meeting units at the release point and leading them to positions.

OCCUPATION

7-194. As units arrive, guides move them, without stopping, to unit locations and vehicle positions. Organization of the area based on the unit order of march prevents congestion at the release point. Once in position, units and vehicles make adjustments. Positioning considerations are as follows:

- Locations selected to afford dispersion and hide positions.
- Vehicles oriented or positioned to facilitate defense.
- CPs and trains centrally located for security, ease of support, and road access.
- Mortars sited to provide fire support.
- Communications by wire or messenger established within companies and with the battalion.

BATTALION ASSEMBLY AREA VS COMPANY ASSEMBLY AREA

7-195. The CAB may assign AO to subordinate companies and require them to integrate their fires and observation with each other. The main CP, trains, and mortar platoon are located near the center of the AA. Ideally, company sectors are assigned to balance the task-organization against the appropriate enemy avenue of approach. The scout platoon occupies OPs at key points around the entire perimeter of the battalion or screens along the most dangerous or likely avenue of approach. This method configures the CAB in a perimeter defense with companies oriented outward. This is the most common organization of battalion AAs.

INDIVIDUAL COMPANY ASSEMBLY AREAS IN BATTALION AREA OF OPERATIONS

7-196. The CAB may assign separate individual AAs to subordinate companies, which establish their own 360-degree security. Areas between companies are secured through surveillance and patrolling. The main CP, trains, and mortar platoon establish positions central to outlying companies. The battalion usually establishes echelons of trains by locating the field trains with the FSC and positioning the combat trains centrally within the AO.

SECURITY

7-197. An AA is not designated as a defensive position, but the CAB or company organizes it so that a threat ground attack could be detected and defeated. Security against air attack is best provided by passive measures designed to conceal the unit from detection. Additional security considerations include the following:

- Guards at all entrances and exits control the flow of traffic.
- OPs cover key terrain features and likely avenues of approach.
- Platoons prepare fire plans and coordinate on the flanks.
- Fire support plans are prepared by the FIST and fires cell.
- Patrols, sensors, and surveillance devices augment security.

- Contact points for units assist in coordination.
- Roads are the specific responsibility of subordinate units.
- Movement is confined to roads to preclude needless surface disruption that could leave a visible aerial indicator.
- Unnecessary vehicle movement is restricted.
- Minimal use of radios reduces electronic signature.
- Noise and light discipline are strictly enforced.
- The readiness condition level is established and adjusted based on METT-TC.
- Units must consider the location and activities of other units within the AO and coordinate with those capabilities for mutual security.

DEPARTURE

7-198. Departing the AA is the first step of a mission and is just as important as the mission itself. Uncoiling from the AA must be planned for, and rehearsed by key leaders at a minimum. Leaders, down to the platoon level, must understand the sequence and timing of the departure as the large number of vehicles, moving in a potentially relatively confined area may result in confusion, congestion, and loss of tempo. A progressive system of increasing readiness ensures that units are ready to move when required without needlessly tiring Soldiers and wasting fuel during long waits. The AA is occupied with the follow-on mission in mind to preclude congestion on departure. Routes from subordinate unit locations are reconnoitered and timed. Subordinate units designate a linkup point, and units move to and through that point based on their reconnaissance. Depending on threat capabilities, departure may be conducted under radio listening silence.

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Chapter 8
Augmenting Combat Power

To accomplish the assigned mission, the CAB commander must integrate and synchronize all warfighting functions as enablers to enhance the combat power of the maneuver companies. This chapter describes air defense, aviation, the fires, engineers, and UASs support of CAB operations.

SECTION I – AIR AND MISSILE DEFENSE

8-1. The CAB has no organic air defense assets, but the BCT has an ADAM or BAE section with an AMD defense workstation (AMDWS) and a forward area air defense station. Additionally, a short-range air defense battery may be in direct support of a BCT. The AMDWS should be the primary planning tool for AMD, while the forward area air defense is the situational awareness tool utilized to integrate the supporting ADA sensors (for example, the Sentinel radar) via the forward area air defense C2 nodes and battery command post that is organic to the short-range air defense battery. In the event that the division and BCT has a shared theater or regional air picture and is part of the operation task link, the AMDWS, asides being used for planning, should be utilized for the battle tracking and early warning of ballistic missiles. (See FM 3-01 and ATP 3-01.64 for more information.)

8-2. ADA units are a limited resource. Available ADA resources will be dedicated to the protection of assets that commanders deem critical to the success of the tactical plan, leaving other assets without dedicated ADA coverage. All units with or without dedicated ADA support must contribute to their own defense against air attack. Weapon systems such as tanks, IFVs, Stinger man-portable air defense system teams, and small arms fires (against enemy small UASs) may contribute to a holistic air defense posture via the implementation of defense in-depth.

8-3. The battalion adopts its air defense posture based on the type of supporting ADA assets that are attached. The battalion always uses a combination of active and passive measures to protect itself against air attack.

8-4. The types of short- range air defense systems that the brigade and the CAB may have in their AO are—

- Stinger man-portable air defense system—a man-portable, shoulder-fired heat seeking missile system.
- Avenger—a high mobility multipurpose wheeled vehicle mounted with a gunner turret equipped with two Stinger missile pods and an M3P .50 caliber rapid fire machine gun.
- Counterrocket, artillery, and mortar:
  - Sense capabilities (provided by field artillery battalion).
  - Warn capabilities (provided by ADAM or BAE).
  - Engagement capabilities (provided by ADA units).

AVENGER PLATOON

8-5. ADA units are a limited resource. When available, a short-range air defense battalion, consisting of Avenger batteries, is placed in support of a division. The division, in turn, may allocate an Avenger battery to defend each brigade, and a brigade may further place a platoon in support of a CAB.

8-6. An Avenger platoon includes two squads and a Sentinel radar section. Each squad contains three Avengers. Each Avenger system has two missile pods, carrying a total of eight Stinger fire-and-forget missiles, and a .50 caliber machine gun mounted on a high mobility multipurpose wheeled vehicle. The

Avenger system also has on-board forward-looking infrared sensors to aid in visual acquisition and the identification of tracks. The Sentinel radar provides early warning and cueing of the Avenger system to the air threat to initiate an engagement sequence.

8-7. While mobile, the Avenger system cannot maintain pace with the CAB's maneuvering tracked vehicles. Therefore, the Avenger system is generally used to defend semi-fixed sites, such as AAs, refuel points, and bridge crossings.

PLANNING FOR AIR DEFENSE

8-8. The Avenger platoon is most likely placed in direct support of the CAB. Support required from the CAB may include petroleum, oil and lubricants and rations; additional force protection may also be a consideration to augment the platoon's own capabilities.

8-9. The Avenger platoon leader initially receives guidance either by the CAB commander or S-3 on the CAB's mission and any contingency plans. The commander or S-3 also identifies the brigade assets, in priority order, requiring defense against air threats. The platoon leader briefs the commander and staff on the capabilities and limitations of the Avenger system, the air defense directives for the platoon, and any support which the platoon requires from the CAB. In the briefing, the platoon leader reiterates the air defense warning conditions and ensures that the staff is cognizant of the ROE for air defense. The ROE, approved by the joint force commander, direct the conditions under which engagements of air and missile threats can occur. The applicable ROE for the platoon address self-defense, identification criteria, WCS, and fire control orders.

8-10. The CAB commander's critical asset list is the baseline from which the platoon leader determines how and where to allocate the Avengers. The platoon can be employed as a unit or task organized as individual fire units per the supported commander's scheme of maneuver. However, the CAB commander may determine that the first priority on the critical asset list requires additional defense and directs the platoon leader to defend it with additional Avengers. The defended asset listed is finalized per the CAB commander's directions.

8-11. The platoon leader maintains constant communications with the CAB commander or the S-3 for situational awareness during all operations. The platoon leader informs them of the operational status of the platoon, any engagement results, and resupply requirements. In addition, the platoon leader may relay air defense status changes or other directives which have been transmitted by the platoon's parent air defense battery or a higher air defense echelon. Conversely, the S-3 may provide updates to the CAB mission and projected movements, as well as any air defense information which is received from the CAB's parent brigade. (See ATP 3-01.64 for more information.)

THREAT

8-12. In analyzing the physical variable of a CAB's operational environment, planners must consider the airspace above the CAB's AO. Some areas to consider include—

- Location of threat airfields and launching points.
- Weapons ranges of enemy air (identify ordnance release line).
- Obstacles in the friendly AO that create severely restricted or restricted terrain for movement.
- Physical structures in the friendly AO that create severely restricted or restricted terrain for movement and observation (may include buildings, power lines, and antennas).
- Hills, trees, and other natural barriers that create severely restrictive or restrictive terrain for movement and observation.
- Weather.

8-13. The following are some of the types of air threats and typical maneuvers that the CAB can expect to encounter against a well-equipped enemy:

- UASs are small and elusive. They usually fly low, but the altitude can vary. Once in the target area, they may fly an orbit attempting to stay out of engagement range of ADA.
- Most surface-launched cruise missiles follow the terrain and use terrain masking. Due to their range, they might take indirect approach routes.

- Ballistic missiles are not terrain-dependent. They fly from launch point to objective. Their flight is not restricted by terrain.
- Tactical air-to-surface missiles usually fly direct routes from launch platform to the target.
- Rotary-wing aircraft primarily conduct contour flights. They follow ridgelines and military crests, using the terrain to mask their approach to the target area.
- Fixed-wing aircraft usually follow major terrain or man-made features. Depending on range, they may fly a straight line to the target.
- Ordnance or payload can affect range and altitude of the air system and, thus, influence the selection of avenues of approach for airborne and air assault operations.

8-14. Units can expect the threat to attempt to counter U.S. defensive and offensive operations with a myriad of aerial platforms. UASs provide the threat commander the necessary information to determine friendly unit locations, movements, and objectives. Aerial and artillery strikes can be generated from the intelligence developed for such targets as:

- Maneuver force.
- Forward arming and refueling points.
- Aviation bases.
- C2 nodes.
- Reserve troop concentrations.
- FSC areas.
- Terrain features.
- Obstacles constricting unit movements as U.S. forces advance to close with the enemy forces.

8-15. Lethal UAS can be effective in disabling command, control, communications, and intelligence facilities or destroying armored vehicles. The threat probably will use cruise missiles against logistical concentration, C2 nodes, or with submunitions for area denial. It probably will use rotary-wing aircraft to attack forward elements and the flanks of the advancing enemy maneuver force to slow their tempo, cause confusion and, thereby, inflict maximum casualties. Rotary-wing aircraft also can be used to conduct operations across FLOT, CAS, and air insertion operations. Armed attack helicopters constitute the most widespread and capable air threats to friendly ground forces in the close battle. Fixed-wing aircraft can perform a variety of missions in offensive and defensive operations. These include CAS, attack of C2 nodes, and air interdiction.

PASSIVE AIR AND MISSILE DEFENSE

8-16. Commanders employ passive AMD measures to improve their units' survivability by increasing the likelihood of not being detected and targeted (attack avoidance) from the air and by mitigating the potential effects (damage-limiting) of an air attack. Passive air defense is all measures other than active AMD, taken to minimize the effectiveness of hostile air and ballistic missile threats against friendly forces and assets (see JP 3-01). These measures include camouflage, concealment, deception, dispersion, reconstitution, redundancy, detection and warning systems, and the use of protective construction. Concealing large vehicles like the tanks and IFVs is difficult. Commanders should consider deception techniques to disguise their intentions and active air defense.

8-17. It is likely an enemy has the capability to attack from the air. Simple measures can be taken by the CAB to avoid and limit damage of an attack. If routinely followed, passive AMD will not only reduce the probability detection from an air threat but will also limit damage if an attack cannot be avoided.

8-18. The first line of defense against air attack is to employ passive AMD. Upon detection of an approaching hostile aerial platform that is not attacking the unit, the commander has a decision to make. Based on the unit's assigned mission the commander may not want to fire and disclose the position. Secondly, based on the ROE, the commander needs to decide whether to engage a nonattacking aerial platform.

ACTIVE AIR AND MISSILE DEFENSE

8-19. While passive AMD measures increase survivability rates, troops must be prepared to engage enemy aircraft with intent of attacking the CAB in order to neutralize or destroy threat within engagement envelopes. The decision to fight an air threat is based on the imminent or immediate situation and weapons systems capable of engaging in the threatened area. A defense-in-depth with massing of fires from weapon systems in the threatened area will increase the probability (of kill) to neutralize or destroy the air threat.

8-20. Active AMD is a direct defensive action taken to destroy, nullify, or reduce the effectiveness of hostile air and ballistic missile threats against friendly forces and assets (see JP 3-01). It includes the use of aircraft, air defense weapons, EW, and other available weapons.

8-21. Combined arms approach to active AMD is defending against a threat as a coordinated unit with all available forms of defense. Combined arms active AMD employs coordinated tasks and available capabilities in response to a threat using prescribed engagement techniques. Active AMD by a combined arms unit may not be successful if the response cannot be coordinated. Combining resources during combined arms operations is based on coordinated planning and efforts across all echelons.

AIR DEFENSE WARNING CONDITIONS AND WEAPONS CONTROL STATUS

8-22. Battalion leaders should ensure their subordinates understand the air threat and air threat warning conditions. An air defense warning condition is a degree of air attack probability based on a threat assessment. Air defense warning conditions are stated in the OPORD:

- Red. Indicates the attack is imminent or in progress.
- Yellow. Indicates that an attack is probable.
- White. Indicates that an attack is not likely.

8-23. A local air defense warning describes the air threat in the immediate area. Local air defense warnings are designed to alert a particular unit, several units, or an area of the battlefield of an impending air attack. ADA units use local air defense warnings to alert Army units about the state of the air threat in terms of right here and right now. They can be used in conjunction with air defense warnings established by higher headquarters.

8-24. WCS determines the conditions for using weapons against enemy aircraft. They may be declared for a particular area and time. The control statuses are:

- Weapons free. Soldiers may fire at aircraft not positively identified as friendly.
- Weapons tight. Soldiers may fire only at aircraft positively identified as hostile according to announced hostile criteria.
- Weapons hold. Soldiers may not fire except in self-defense.

Note. Weapons free: There must always be some positive identification analysis conducted to determine that what is being targeted is a lawful military target.

SECTION II – AVIATION

8-25. Army aviation uses maneuver to concentrate and sustain combat power at critical times and places to find, fix, and destroy threat forces. Aviation units design, tailor, and configure their assets in support of the company team for specific operational support based on mission guidance and the specific theater in which the units operate. The organization could be any combination of attack reconnaissance, assault, lift, and maintenance units. When providing support to ground maneuver elements, Army aviation will operate on that echelon's command net unless directed otherwise. The principles and guidelines for employment of aviation assets are as follows:

- Fight as an integral part of the combined arms team.
- Exploit the capabilities of other branches and services.

- Capitalize on information collection capabilities.
- Suppress threat weapons and acquisition means.
- Exploit firepower, mobility, and surprise.
- Mass forces.
- Use terrain for survivability.
- Displace forward elements frequently.
- Maintain flexibility.
- Exercise staying power.

AIR-GROUND OPERATIONS

8-26. The operational environment requires combined arms at all levels; therefore, the likelihood of the CAB commander receiving attack and utility aviation assets in an OPCON status is ever increasing. The following are considerations for the commander and staff when receiving aviation assets:

- Exchange of command frequencies and call signs, FM check-in times, and synchronization.
- Terrain model and radio rehearsals, along with conducting regular training events.
- Location of air corridors and air control points.
- Location of aerial attack-by-fire, SBF, and battle positions.
- Identification method for marking ground targets and SOPs.
- Aircraft weapons configuration capabilities and limitations of each force.
- Friendly recognition symbols for aircraft and ground vehicles.
- Fire coordination measures.
- Location and marking of LZs and PZs for MEDEVAC, CASEVAC, and aerial resupply.
- Command and support relationship.

8-27. Ground maneuver commanders must understand that aviation forces can provide a significant advantage during operations. The commander and staff must understand that the unique capabilities of Army aviation require unique planning and coordination. The MDMP and TLP must fully integrate Army aviation forces to ensure effective combined arms employment. Effective combined arms employment requires that aviation and ground maneuver forces synchronize their operations by operating from a common perspective. This section highlights some possible procedures that aid in creating a common air-ground perspective.

ARMY ATTACK AVIATION

8-28. Army attack aviation targets are planned on probable enemy locations. Army attack aviation call for fire is a coordinated attack by Army attack aircraft against enemy forces in close proximity to friendly units. Army attack aviation call for fire is not synonymous with CAS flown by Joint and multinational aircraft. Terminal control from ground units or controllers is not required due to aircraft capabilities and enhanced situational understanding of the aircrew. Depending on the enemy situation, Army attack aviation can be on station during times when contact is most likely to occur. Air-ground integration ensures frequencies are known and markings are standardized to prevent fratricide. (See ATP 3-04.1 for additional information.)

8-29. In most cases, Army attack reconnaissance helicopters are either employed by a preplanned mission or on an immediate or emergency basis. Attack reconnaissance aircraft engage targets near friendly forces, thereby requiring detailed integration of fire and maneuver of ground and aviation forces. To achieve desired effects and reduce risk of fratricide, air-ground operation must occur down to team levels. Both types of attack aviation represent a powerful battlefield asset, capable of destroying threat elements of varying sizes, including large Armor formations and during counterinsurgency operations in urban terrain. Most aspects of employment and target effects are similar to those for CAS that fixed-wing aircraft provide.

PLANNING AND RECONNAISSANCE

8-30. Planning for attack reconnaissance helicopter support usually begins at squadron or battalion level or above. The squadron or battalion provides the aviation brigade or CAB with information on locations, routes,

and communications before the attack team's departure from its AA. As part of this effort, the company team and platoons usually provide information for attack aviation employment. All Soldiers should familiarize themselves with the procedures used to call for attack reconnaissance helicopter support. If attack reconnaissance helicopter assets are working for the battalion, they must provide suppressive fires on any known or suspected threat ADA locations.

8-31. Critical elements of the planning process are the procedures and resources used in marking and identifying targets and friendly positions. Leaders consider these factors thoroughly, regardless of the time available to the ground and air commanders.

COORDINATION

8-32. The aerial attack team coordinates directly with the lowest-level unit in contact on that company team's command net. Whenever practical, before the attack team launches the attack aviation operation, the ground leader conducts final coordination with attack reconnaissance helicopters in a concealed position known as the aerial holding area. The holding area is used for final reconnaissance, synchronization of enablers, and to reduce the time required to maneuver to a position of advantage. They are the last covered and concealed position prior to the objective that is occupied for short periods of time. The holding area could be an alternate battle position positioned out of range of the threat's direct fire and indirect fire weapons ranges.

8-33. Final coordination between the ground and aviation units must include agreement on methods of identifying and marking friendly and threat positions. This should take advantage of the equipment and capabilities of the attack team, including the forward-looking infrared system, the thermal imaging system, and night vision devices.

8-34. Coordination should cover the battle positions, attack-by-fire, or SBF positions used by attack reconnaissance helicopters. The commander should offset these positions from the ground maneuver unit to maximize the effects of the attack team's weapons and to minimize the risk of fratricide. To prevent indirect fires within the AO from posing a danger to the helicopters, the ground commander informs direct support artillery and organic mortars of the aerial positions and coordinates through the FSO and battalion fires support element for deconfliction.

AIR MOVEMENT

8-35. Air movement operations are conducted to reposition units, personnel, supplies, equipment, and other critical combat elements in support of current and future operations. These operations include airdrops and air landings.

8-36. Planning for air movements is similar to that for other missions. Besides the normal planning process, air movement planning must cover specific requirements for air infiltration and exfiltration. The requirements are as follows:

- Coordinate with the supporting aviation unit(s).
- Plan and rehearse with the supporting aviation unit prior to the mission if possible. If armed escort accompanies the operation, the commander—as well as the assault or general support aviation unit—should ensure that aircrews are included in the planning and rehearsal.
- Gather as much information as possible, such as the enemy situation, in preparation for the mission.
- Plan and coordinate joint SEAD.

8-37. The unit should plan different ingress and egress routes, covering the following:

- Planned insertion and extraction points.
- Emergency extraction rally points.
- Lost communications extraction points.

8-38. Planned extraction points and emergency extraction rally points require communications to verify the preplanned pickup time or coordinate an emergency pickup time window. Planning must include details for extraction when communications between higher headquarters and the unit are lost. The lost communications

extraction point involves infiltration teams moving to the emergency extraction point after two consecutive missed communications windows and waiting up to 24 hours for pickup.

AIR RESUPPLY

8-39. Units may operate in forward locations and even distant hide positions requiring helicopter resupply including internal and external load operations. Properly planned and executed air resupply may extend the operational reach of the CAB beyond what is normally capable through ground means.

8-40. Planning for aerial resupply requires close coordination, with elements reviewing the entire mission and resolving all limitations and problem areas. If a resupply item poses a problem that cannot be resolved, leaders should consider another mode of transport. Planning factors include the following:

- Priorities of cargo or unit resupply.
- Integration of the resupply operation into the tactical plan.
- Selection, identification, and marking of the PZ or LZ.
- Type or amount of cargo.
- Helicopter assets available.
- Requirements for slings, cargo nets, and cargo containers.
- Ground crew-training requirements, such as those for ground guides and hookup personnel.
- PZ and LZ security.
- Flight routes.

8-41. The selection of a usable PZ or LZ is extremely important. The commander analyzes logistical and tactical considerations taking into account that PZ or LZ positioning is at the right place to support the ground unit. The area must be accessible to the aircraft involved in the resupply operation. The air mission commander, the pilot in command, an aviation LNO, or a Pathfinder-qualified officer or NCO make the final decision on PZ or LZ selection and acceptance.

8-42. The unit receiving the supplies is responsible for preparing the PZ or LZ. Besides the general PZ or LZ responsibilities, it performs the following specific tasks for aerial resupply:

- Recover and assemble equipment and supplies.
- Train available ground crews to guide the aircraft during approach, landing, unloading or loading, departure, and de-rigging the load.
- Train hookup personnel.
- Coordinate with the sending unit for the control and return of that unit's transport equipment, such as slings and cargo nets.
- Prepare, coordinate, and inspect backloads (such as slings and cargo nets) and have them ready for hookup or loading when the aircraft arrives.

SECTION III – FIRES

8-43. *Fires* are the use of weapons systems or other actions to create a specific lethal or nonlethal effect on a target (JP 3-09). The fires warfighting function is the related tasks and systems that create and converge effects in all domains against the adversary or enemy to enable operations across the range of military operations. The role of fires is to enable the CAB commander to seize and retain the initiative, gain and maintain freedom of movement and action, and defeat adaptive threats across the range of military operations. Fires are surface-to-surface, air to surface, and joint fires including electromagnetic attack. Fires are integrated and synchronized in support of the scheme of maneuver.

8-44. The CAB commander uses fire support to create effects and set conditions to achieve the objectives. Each fire support task and purpose directly support a maneuver task and purpose. Integrating fire support digital systems with other C2 systems enhances the CAB's ability to focus fires by providing the commander with improved situational understanding that enhances the ability to exploit the AO rapidly with fires.

8-45. The Army must be dominant across the range of military operations. It must always be prepared to fight in high-intensity conflict but is equally likely to conduct operations in mid- to low-intensity conflicts.

Thus, forces that provide fires must be able to operate throughout an entire operational environment that encompasses space, air, maritime, and land domains, and the information environment, and other variables. Fires must focus on the concentration of effects and not on the concentration of forces.

8-46. Fire support organization's first priority is to support forces in contact. Fire support organizations help shape the operational environment, provide force protection, and set conditions for the ground maneuver forces they support. Modern weaponry, real-time information, and precision munitions allow for widely dispersed and noncontiguous forces to conduct simultaneous operations throughout the entire AO.

FIRE SUPPORT ORGANIZATIONS

8-47. The CAB fires cell plans, prepares, executes, and assesses fires in support of current and future operations. The fires cell backbriefs targeting guidance to the commander per the commander's intent for fires and maneuver, develops HPTs, and prioritizes targets for attack, matched to a wide range of targeting and delivering systems. Collocated and integrated with the fires cell is the USAF tactical air control party (TACP). The TACP provides linkages to higher echelon TACPs to plan, prepare, execute, and assess air support for CAB operations, and maintains situational understanding of the total air support picture. Every CAB has a habitual relationship with a fire support platoon comprised of a fires cell and company FIST as shown in table 8-1.

Table 8-1. Combined arms battalion fires support sections

CAB Fires Cell	*Armor Company FIST*	*Infantry Company FIST*
Fire Support Officer	Fire Support Officer	Fire Support Officer
Assistant Fire Support Officer	Fire Support Sergeant	Fire Support Sergeant
Fire Support Sergeant	Fire Support Specialist	Forward Observer (Four)
Targeting Noncommissioned Officer	Radio Telephone Operator	Fire Support Specialist
Fire Support Sergeant		Radio Telephone Operator
Fire Support Specialist		
Electromagnetic Warfare Sergeant		
Legend: CAB – combined arms battalion; FIST – fire support team		

TACTICAL AIR CONTROL PARTY

8-48. The USAF augments the CAB's fire support assets with a TACP that provides an ALO and JTACs to plan, control, and direct CAS. The collaborative working relationship established between the TACP with its CAB provides a working knowledge of ground operations and enhances the CAB's ability to integrate fixed-wing operations with ground schemes of maneuver effectively.

8-49. TACPs coordinate activities through a joint air request net and the advanced airlift notification net. The TACP performs the following functions:

- Serves as the USAF commander's representative, providing advice to the CAB commander on the capabilities, limitations, and employment of air operations.
- Provide as USAF coordination interface not only with the CAB fires cell.
- Assist in the synchronization of air and surface fires and preparing the air support plan.
- Provide direct liaison for local ADAM activities.
- Facilitate the planning of air support for future operations and advise on the development and evaluation of CAS, air interdiction, air reconnaissance, joint air attack team operations and joint SEAD programs.
- Provide terminal attack control for CAS and operate in the joint air request net.

8-50. Normally an NCO will serve as a JTAC. The *joint terminal attack controller* is a qualified (certified) Service member who, from a forward position, directs the action of combat aircraft engaged in close air support and other offensive air operations (JP 3-09.3). The JTAC also coordinates airspace management between the Army aviation element and the air support operations center. CAB JTACs have the added responsibility of terminal attack control.

8-51. The primary responsibility of a JTAC is the positive control of CAS aircraft flying missions in support of the CAB. JTACs monitor the ground tactical situation using electronic COP displays and voice radio nets to prevent fratricidal air-to-ground or ground-to-air engagements.

FIRES CAPABILITIES IN SUPPORT OF THE CAB

8-52. The CAB commander's primary fire support assets are its mortars and field artillery support delegated to the CAB based on the ABCT commander's tasks. Priorities of fires will likely shift from between supporting and main efforts throughout operations.

FIELD ARTILLERY

8-53. Field artillery is the maneuver commander's principal means for providing indirect fire support to the maneuver forces if allocated by the higher headquarters. The mission of the field artillery is to destroy, defeat, or disrupt the enemy with integrated fires to enable maneuver commanders to dominate in unified land operations. Field artillery elements within maneuver organizations serve as the integrating center for all elements of fire support. Field artillery delivery systems include cannons, rockets, and missiles. These systems can provide fires under all conditions of weather and in all types of terrain. They can shift and mass fires rapidly without having to displace.

8-54. Within the ABCT, the field artillery battalion has three batteries of six M109A6 Paladin self-propelled 155-mm howitzers. Each battery has two three-gun platoons. The headquarters and headquarters battery is equipped with two AN/TPQ-53 weapons locating radars and four AN/TPQ 50 weapons locating radars.

MORTARS

8-55. Mortars are organic to all CABs. The mission of mortars is to provide immediate and close supporting fires to the maneuver forces in contact. Maneuver unit mortars provide close, immediately responsive fire support for committed companies. These fires harass, suppress, neutralize, and destroy enemy attack formations and defenses; obscure the enemy's vision; and inhibit the enemy's ability to maneuver. Mortars can also be used as final protective fires, obscuration, and illumination.

8-56. The CAB commander decides how and when to integrate mortars, as a key fire support asset. However, since they are fire support assets, the FSO should give advice and make recommendations to the commander. The amount of control the FSO has over the employment of available mortars is a matter for the supported unit commander to decide. The commander may specify mortar support for subordinate units by changing the command relationship, assigning priority of fires, or assigning priority targets.

8-57. Synchronization of the mortar fire plan and scheme of maneuver with the CAB fire plan and scheme of maneuver are critical to realizing the full potential that the mortar platoon brings to the battlefield. The mortar platoon leader participates in the CAB fire support rehearsals to ensure the mortar platoon can accomplish its essential tasks for fire support.

8-58. The CAB FSO supervises fire support activities in the CAB. These include planning, coordinating, integrating, deconflicting, and synchronizing all forms of fires, to include joint fires and electromagnetic attack. The fires cell is organized to help the CAB commander and S-3 integrate fires in support of current and future operations. The major functions of the fires cell include—

- Plan, integrate, coordinate, deconflict, and synchronize through targeting, Army and joint fires and, when directed by the maneuver commander, other nonlethal effects.
- Coordinate target acquisition, target dissemination, and target engagement.
- Integrate and synchronize airspace coordination requirements with Army and joint air capabilities which include FSCMs and airspace coordinating measures (ACMs).

- Produce and execute the fire support plan.
- Manage target nominations and track the life cycle of the nomination.
- Interface with all boards or cells.
- Provide input to the collection plan.
- Conduct fires, assess, and recommend re-attack.
- Recommend FSCMs and ACMs.
- Coordinate position areas for fires units with maneuver and airspace control agencies.
- Request and coordinate CAS and air interdiction.

8-59. The EW sergeant provides the commander and staff guidance on how the EMS can impact operations and how friendly EW can be used to gain an advantage in support of tactical and operational objectives across unified land operations. They provide military assistance involving the use of electromagnetic energy to determine, exploit, reduce, or prevent hostile use of the EMS; provide technical assistance to support units; and maintain and assist in developing the EW running estimate.

FIRE SUPPORT PLANNING AND COORDINATION

8-60. Fire support planning and coordination ensure that the CAB synchronizes all available fire support per the commander's concept of operations. The key to effective integration of fire support is the thorough inclusion of fire support in the operations process and a vigorous execution of the plan supported by an aggressive coordination effort. Fire support planning is accomplished using targeting and the running estimate. The objective of fire support planning is to effectively integrate fire support into the fight to optimize combat power. Initiated during mission analysis and continuing through post-execution assessment, fire support planning includes the end state and the commander's objectives; target development and prioritization; capabilities analysis; commander's decision and force assignment; mission planning and force execution; and assessment.

8-61. *Fire support coordination* is the planning and executing of fire so targets are adequately covered by a suitable weapon or group of weapons (JP 3-09). It provides a way to deconflict attacks, reduce duplication of effort, facilitate shaping of the battlefield, and avoid fratricide. Coordination procedures must be flexible and responsive to change, with simplified arrangements for approval or concurrence.

PRINCIPLES OF FIRE SUPPORT PLANNING

8-62. The principles of fire support planning are—

- Plan early and continuously.
- Ensure the continuous flow of targeting information.
- Consider the use of all capabilities.
- Use the lowest echelon capable of furnishing effective support.
- Use the most effective fire support means.
- Furnish the type of fire support requested.
- Avoid unnecessary duplication.
- Coordinate airspace.
- Provide adequate support.
- Provide rapid and effective coordination.
- Provide for flexibility.
- Protect the force.

8-63. The effectiveness of fire support planning and the fire support system depend on the successful performance of the two basic fires warfighting function tasks:

- Execute fires across all domains and in the information environment, employing—
  - Surface-to-surface fires.
  - Air-to-surface fires.

  - Surface-to-air fires.
  - Cyberspace operations and EW.
  - Space operations.
  - Multinational fires.
  - SOF.
  - Information operations.
  - AMD planning and integration.
- Integrate Army, multinational, and joint fires through—
  - Targeting.
  - Operations process.
  - Fire support.
  - Airspace planning and management.
  - EMS management.
  - Multinational integration.
  - Rehearsals.

ABCT Responsibilities

8-64. The ABCT develops a synchronized scheme of maneuver and scheme of fires. The scheme of fires assigns fire support tasks, and allocates assets and effects to subordinates. It is the brigade's responsibility to set conditions for and provide indirect field artillery fires in support of the CABs. The brigade may provide additional augmenting fires by coordinating with the division artillery or field artillery brigade. The BCT will clearly specify priority of fires. Refinements to the brigade scheme of fires from subordinate units are integrated as essential tasks for fire support. Finally, the brigade integrates the movement of artillery units with the scheme of maneuver.

8-65. The BCT's role in fire support planning includes the following tasks:

- Coordinate and synchronize air-ground operation.
- Implement the fire support plan.
- Conduct fire support planning.
- Coordinate target attack.
- Employ fires in support of the BCT.
- Synchronize all forms of fires (battalion through brigade).
- Conduct targeting (brigade through corps).
- Coordinate delivery of fires (brigade through corps).
- Establish target priorities (battalion through corps).

Combined Arms Battalion Responsibilities

8-66. The CAB must understand the brigade concept of fires, its synchronization with the brigade scheme of maneuver, and its role in the execution of the brigade scheme of fires. With this information, the CAB develops its own concept of fires. This concept involves assigned tasks from the BCT scheme of fires and targets to support the CAB close fight. This might require only the refinement of BCT targets, or it might require the CAB to submit new targets to support the CAB commander's concept of operations. The CAB develops a scheme of fires to support those tasks assigned by the BCT and those targets developed by the CAB. It then issues the fire support plan to its subordinates and incorporates bottom-up refinement to support the company commanders' schemes of maneuver. Finally, the CAB forwards its concept of fires and target refinements to the BCT and participates in rehearsals to ensure the plan is clearly understood.

8-67. The CAB's role in fire support planning includes the following tasks:

- Coordinate air-ground operation when providing attack aviation support.

- Conduct rehearsals with supporting fires agencies and airspace control agencies (battalion fires cell).
- Conduct fire support planning.
- Coordinate target engagement.
- Synchronize and integrate delivery of fires.

CAB COMMANDER RESPONSIBILITIES FOR ESTABLISHING TARGET PRIORITIES

8-68. The CAB commander is responsible for the effective integration of fires with the whole operation. The CAB commander's operational approach includes the scheme of fires, which enables commanders to shape the operational environment with fires to support the commander's requirements and objectives. The FSO provides the nucleus for effective fire support planning and coordination with the CAB S-3 and S-2, supporting field artillery, and other attack resources. The commander must take an active role in the development of the CAB concept of fires by articulating the mission tasks and purpose to the entire staff. Priority of fires is the commander's guidance to the staff to employ fire support per the relative importance of the unit mission. The guidance emphasizes in broad terms where, when and how the commander intends to synchronize the effects of fires and targeting functions with the other elements of combat power to accomplish the mission.

8-69. Fire support planning considerations include a series of inputs, actions, and outputs by both the fires cell and the CAB commander. Prior to planning, the fires cell gathers the following:

- BCT OPORD.
- Facts from higher (BCT), lower (FISTs), and adjacent (other artillery battalion fires cells).
- IPB products to include the situation template (known as SITTEMP), threat COAs, and HVT list.
- Status of fire support assets available to the CAB.

8-70. Once the planning process begins, the fires cell—

- Reviews the BCT OPORD.
- Identifies the specified and implied tasks.
- Correlates status of fire support assets into capabilities.
- Integrates the IPB products into targeting products such as the HPT list.
- Develops the fire support tasks.

8-71. Outputs from the planning process include the following items that will contribute to the CAB OPORD and may also be used as further planning products by the fires cell and other staff sections within the CAB:

- Fire support portion of the mission analysis brief.
- Recommended fire support tasks.
- Recommended target list.
- IR and requests for information to the CAB S-2 staff section.
- Fires paragraph and annex to the CAB OPORD.

8-72. In addition to the fires cell, the CAB commander is also responsible for the following actions during the planning process:

- Receive the mission analysis briefing, which includes the fires cell's contribution.
- Issue fire support planning guidance and targeting priorities.
- Modify or approve the fire support tasks.
- Provide commander's intent for fires.

8-73. Throughout the duration of the planning process, the following activities occur continuously, helping to refine the fire support contributions:

- Revise products based upon commander's intent.
- Provide technical direction to subordinates FISTs and the CAB mortar platoon.
- Conduct bottom-up refinement.
- Pass prioritized targets, effects, and air support requests to the BCT.

- Integrate scheme of fires with scheme of maneuver to develop initial COAs and final concept of operations.

SCHEME OF FIRES

8-74. The scheme of fires is a supporting element of the scheme of maneuver. The scheme of fires must describe what fires must do in order to achieve the commander's intent. It includes the priority of fires and explains what must be accomplished in clear, measurable, and understandable terms:

- The fire support tasks must include the purpose as well as who, what, when, where and why, and sometimes how, for each task. The FSO develops the scheme of fires in coordination with the S-3 and mortar platoon leader. When field artillery fires are allotted, the FSO also coordinates with the ABCT fire support coordinator and the field artillery battalion S-3 and fire direction center. The scheme of fires must identify all fire support tasks. (See FM 3-09 for more information.)
- Once the CAB scheme of fires is finalized, it is essential that the CAB commander clearly articulate to the BCT commander and staff the importance of those fires to the CAB concept of operations. The CAB commander should be able to describe the impact on mission success if those fires are not received.

FIRE SUPPORT COORDINATION MEASURES

8-75. A *fire support coordination measure* is a measure employed by commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces (JP 3-0). FSCMs govern the employment of artillery and mortars, attack aviation and interdiction attack by Army aviation rotary-wing aircraft, fires from UAS, and CAS and air interdiction by fixed-wing aircraft. Commanders position and adjust FSCMs consistent with the operational situation and in consultation with superior, subordinate, supporting, and affected commanders.

OBSERVATION PLANNING

8-76. The observation plan, a component of the fire support plan, should provide the task and purpose for each phase of the operation. The observation plan should be synchronized with the scheme of maneuver during the MDMP. The CAB FSO will develop the observation plan in concert with the S-2 and S-3 and use terrain-based computer programs to assist with position selection. The observation plan ensures observers are in position to support each essential task to be accomplished by fire support assets. The observation plan should address field artillery memory aids, TTLODAC (target, trigger, location, observers, delivery, attack guidance, communications) or PLOT-CR (purpose, location, observer, trigger, communications, and resources).

TOP-DOWN FIRE PLANNING

8-77. To enhance the focus of fires, the CAB conducts formal fire planning through a deliberate top-down process with bottom-up refinement. This process occurs primarily during the decide phase of the targeting process (D3A).

8-78. Top-down fire planning is a continuous process of analyzing, allocating, and synchronizing fire support. It determines—

- How the CAB will use fire support and what the essential tasks are.
- What types of targets will be attacked—resulting in the HPT (decide).
- What type of targets will not be attacked.
- What collection capabilities are available to acquire and track the targets (detect).
- What capabilities the CAB will use to attack different targets; what munitions, what affects, and when they will be engaged (deliver).
- System preferences for various targets.
- What capabilities are available to verify (assess) effects on the target.

8-79. The basis of the top-down fire planning concept is that the plan originates at higher levels and is refined at lower levels. At the CAB level, the commander receives the top-down fire plan from the ABCT. This plan focuses the fire support effort exactly where the ABCT commander wants it in the AO. It provides detailed execution guidance, fire support tasks, allocation of resources, assigned target execution responsibility, and fully supports the ABCT's concept of operations. The CAB FSO, after receiving this plan, begins to refine targeting information based on how the CAB commander intends to integrate the plan into the brigade plan.

8-80. Planning must be flexible to accommodate unexpected and rapid changes. The brigade plan should contain only those fire support tasks necessary to support the commander's guidance for fires. Remaining assets are allocated to the subordinate CAB commanders according to their priorities for fires. In turn, each CAB commander develops a concept of fires to support the concept of operations or scheme of maneuver and assigned essential tasks. The commander may allocate any assets not planned for down to the companies for their planning and execution.

Note. When planning fires, it is essential to address the following aspects of each fire support task and target: purpose, location, trigger, shooter and backup shooter, sensor, observer and backup observer, communications structure, rehearsal, and delivery assets. If any of these requirements are not identified, planned, resourced, and rehearsed, the successful accomplishment of that fire support task is at risk.

8-81. The primary advantage of top-down fire planning is that the commander develops the concept of fires early, enabling the fires cell to plan concurrently. This process also allows for development of a plan that focuses the fires effort where and when and how the commander wants it.

8-82. Digitized systems facilitate the dissemination of plans; provide commanders with near real-time information on the status of fire units; and allow them to modify and shift the focus of fires as the situation develops. The CAB commander can quickly assess where the focus of fires needs to be.

8-83. The allocation of resources in top-down fire planning should be more than the mere blind allocation of a number of targets for planning without regard for the purpose and achievable effects during that part of the operation. Allocations at each level should emphasize the purpose, planning, and execution of fire support tasks. For example, allocating three targets to a company commander for planning does not identify the possible purposes of those targets. However, allocating a subordinate a fire task in the form of a TAI for the destruction of a platoon during a certain portion of the operation better accounts for the relationship of fires in time and space. The brigade plan assigns execution responsibility down to the CAB. The CAB commander must then assign responsibility down to the companies.

8-84. Bottom-up refinement is a key element of top-down fire planning. During the decision-making process, targets are planned based on map reconnaissance and SITTEMPs. Targets must be refined based on the reconnaissance effort, actual occupation of the terrain, and updated intelligence. The establishment of fire support tasks early in the planning process allows company FSOs to be proactive in their refinement and planning. Targets that facilitate the accomplishment of fire support tasks can be nominated during the bottom-up refinement early in the planning process.

TARGETING

8-85. The purpose of targeting is to integrate and synchronize fires into unified land operations. Army targeting uses the functions D3A as its methodology. D3A is designed to enhance fire support planning and the intelligence targeting process. Its functions complement the development, planning, execution, and assessment of the effectiveness of targeting and weapons employment. Targeting is continuously refined and adjusted between the commander and staff as the operation unfolds. A *target* is an entity or object that performs a function for the threat considered for possible engagement or other action (JP 3-60). Targets also include the wide array of mobile and stationary forces, equipment, capabilities, and functions that an enemy commander can use to conduct operations. These include—

- Target acquisition. *Target acquisition* is the detection, identification, and location of a target in sufficient detail to permit the effective employment of capabilities that create the required effects (JP 3-60).

- Target discrimination. Target discrimination is the process of applying a system, action, or function to identify or engage any one target when multiple targets are present.
- Target engagement. Target engagement is the process of applying a weapon system, capability, action, or function against a target to achieve a desired lethal or nonlethal effect in support of the commander's objectives.

8-86. Targeting is a command function that encompasses many disciplines and requires participation from the CAB staff elements. The commander's targeting guidance describes the desired effects to be generated by fires, physical attack, and nonlethal activities. It must focus on essential enemy capabilities and functions that could interfere with the achievement of friendly objectives. Usually, targeting is synchronized within the setting of (informal) targeting working group sessions. Targeting working group sessions must be effectively integrated into the CAB battle rhythm and nested within the BCT targeting cycle to ensure the results of targeting focuses operations.

8-87. In general, battalions use an abbreviated form of a targeting working group session. Table 8-2 on page 8-16 contains a list of staff member responsibilities for the targeting working group. The CAB FSO leads the targeting working group and the CAB XO chairs the targeting board. The session—

- Verifies and updates the HPT and attack guidance.
- Establishes target selection standards.
- Nominates targets, FSCMS, and ACMs to higher headquarters.
- Synchronizes the information collection plan with the fire support plan and observer plan.
- Synchronizes air and ground maneuver with fires to including recommendations for maneuver control measures, FSCMs, and ACMs.
- Monitors fire support systems and ammunition status.
- Receives and evaluates BDA.
- Synchronizes lethal and nonlethal activities.

Table 8-2. Targeting meeting responsibilities

Staff Members	*Responsibility*
XO	Reviews commander's guidance and commander's intent. Focuses targeting working group participants on the targeting board objectives. Arbitrates disagreements and ensures participants are actively involved. Focuses on the last time-phase line (for example, D+3 days).
S-2 (Intelligence)	Creates the current enemy situation template, threat COA (event template). Develops high-value target sets in coordination with the fires cell. Creates intelligence products and intelligence assessments of the threat and area of operation and prepares proposed PIR based on the commander's guidance. Determines effects on operations from the impact of light and weather data on the terrain. In coordination with the operation staff, develops the information collection plan with sufficient NAIs and TAIs to support the mission. Conducts a battle damage assessment and provides a combat assessment of the operation to include future threat actions. Prepares a status of intelligence operation assets.
S-3 (Operations)	Briefs the status of current operations. Gathers and briefs friendly forces information requirement FFIR and commander's PIR (D-1 review; D, D+1/2/3 recommendations). Performs BCT-directed and implied tasks. Plans for adjacent units affecting operations D, D+1/2/3. Spells out task-organization (assets available to include anticipated combat power). Gathers troops-to-task ratios.
FSO	Briefs current targeting products including the HPTL, attack guidance matrix, target selection standard, targeting synch matrix and fire support tasks (D, D+1/2/3). Briefs status of fire support assets. Recommends decide and detect data for targeting synch matrix (D, D+1/2/3). Gathers radar operations and counterfire predictive analysis (D, D+1/2/3). Plans for approved preplanned air support requests and targets planned for next two air tasking order cycles. Plans for proposed HPTL for D, D+1/2/3. Briefs recommended changes to FSCM. Considers recommended changes, in conjunction with tactical air control party, changes to working preplanned air support requests.
TACP	Advises on the employment of air assets. Approves submission of airspace coordination measure requests.
Unit Information Operations Officer	Updates measures of effectiveness matrix. Recommends information related capabilities to be synchronized, messaging and information engagement related targets.
LEGEND: BCT – brigade combat team; COA – course of action; D – day; FFIR – friendly force information requirement; FSCM – fire support coordination measure; FSO – fire support officer; HPTL – high-payoff target list; NAI – named area of interest; PIR – priority intelligence requirement; S-2 – battalion or brigade intelligence staff officer; S-3 – battalion or brigade operations staff officer; TACP – tactical air control party; TAI – target area of interest; XO – executive officer	

Table 8-2. Targeting meeting responsibilities (continued)

Staff Members	*Responsibility*
Civil Affairs Team Leader	Coordinates civil reconnaissance and civil engagements. Coordinates key leader engagement by constantly vetting contacts to eventually identify elites within the area of operations. Assists in the planning, coordination and management of civil-military operations project management. Identifies and coordinates with nongovernmental organizations and host-nation project management. Minimizes interference between civil and military operations. Synchronizes civil-military operations to enhance mission effectiveness. Plans for vulnerabilities and flexibility (decision points).
PSYOP Planner	Synchronize actions and messages of MISO series with supported unit targeting and decision process. Plan and coordinate actions for psychological effect. Forecast psychological effects of current or proposed operations, activities, or events on target audiences. Plan and coordinate execution of tactical deception. Advise on key leader engagements.
Unit Public Affairs Representative	Creates a public affairs media engagement plan. Designs public affairs information strategies and media facilitation. Lays out a media security plan.
Engineer	Briefs a threat countermobility COA. Organizes the engineer and EOD assets available (D, D+1/2/3). Recommends reconstruction projects. Creates an environmental considerations assessment.
XO	Provide final guidance and direction to the staff.
LEGEND: COA – course of action; D – day; EOD – explosive ordnance disposal; MISO – military information support operations; PSYOP – psychological operations; XO – executive officer	

REHEARSALS

8-88. Rehearsals are an integral part of the planning process. If possible, the FSO conducts a fire support rehearsal prior to the combined arms rehearsal in order to provide the fire support cell additional time to rehearse fire support plans and products. The FSO participates in the maneuver commander's rehearsal and addresses specific fires portions of the plan. Both fire support and maneuver actions should be rehearsed to reinforce the scheme of maneuver and fire plan. Rehearsals should practice and test the plan. Rehearsal procedures should be established as part of unit TACSOPs.

COMBINED ARMS REHEARSAL

8-89. The CAB commander personally leads the rehearsal. Usually, the CAB S-3 organizes the rehearsal using the commander's DST and the synchronization matrix, while the FSO uses the fire support execution matrix. Subordinate company commanders and the scout and mortar platoon leaders participate in the rehearsal. Other attendees include the CAB's primary staff, company FSO and FIST personnel, CBRN and engineer staff officers, ALO, and the aviation LNO.

FIRE SUPPORT REHEARSAL

8-90. The FSO runs the battalion fire support rehearsal. The fire support rehearsal focuses on the execution of fire support tasks, the fire support execution matrix, the effectiveness of FSCMs, and the timing and synchronization of all fire support efforts with each other and with the maneuver operation. This rehearsal

generally follows the combined arms rehearsal in order to cover any changes made to the plan. The CAB S-2, S-3, TACP, firing unit leaders, and subordinate FSOs and observers should participate to—

- Confirm sequence of targets and desired effects.
- Depict enemy and friendly actions and reactions.
- Synchronize air ground operation.
- Validate observer plan and JTAC positioning and weapon system positioning.
- Validate the use of primary and alternate communications nets.

8-91. The FSO establishes the time and location for the rehearsal. The FSO begins the rehearsal by announcing key times or phases of the operation. Each participant then executes the actions that need to be taken, normally just short of actually delivering fires on the appropriate target. Additionally, the FSO ensures subordinate FSOs and observers understand their role in the CAB and BCT plan by having them articulate the targets and triggers for which they are responsible. They should discuss lifting and shifting of fires in sequence of the scheme of maneuver and identify FSCMs or ACMs in effect in relation to time, space, and purpose relevant to the mission. The key is to ensure the battalion is able to execute its fire support tasks.

8-92. Units use the fire support execution matrix as a script to conduct fire support rehearsals, since the fire support execution matrix is tied directly to the concept of operations. The field artillery battalion representative uses and verifies the information in the field artillery battalion OPORD or field artillery support plan.

CLEARANCE OF FIRES

8-93. The commander is responsible for the clearance of fires. *Clearance of fires* is the process by which the supported commander ensures that fires or their effects will have no unintended consequences on friendly units or the scheme of maneuver (FM 3-09). Fires must be cleared to prevent inadvertent engagement of friendly elements and noncombatants. Clearance of fires requires positive action; lack of a response does not indicate approval. The commander can delegate coordination authority to the battle captain or FSO. The battle captain can clear fires using either a staff process or control measures.

8-94. Once the commander approves the control measures, they either are embedded in digital battle command systems or are disseminated through active or passive recognition systems. During planning and execution, the commander uses all of these means in various combinations to set the conditions for clearance of fires. Even with digital systems, clearance of fires remains a command responsibility at every level, commanders must assess the level of risks and decide to what extent they will rely on digital systems to assist in the clearance of fires. (See ATP 3-09.30 and ATP 3-09.24 for more information.)

CLOSE AIR SUPPORT

8-95. *Close air support* is defined as the air action by aircraft against hostile targets that are in close proximity to friendly forces and that require detailed integration of each Air mission with the fire and movement of those forces (JP 3-09.3). CAS can be employed by the CAB to blunt an enemy attack, to support the momentum of the ground attack, to help set conditions for CAB and ABCT operations counterfire fight, to disrupt, delay and destroy enemy forces and reserves, or to provide cover for friendly movements. In planning CAS missions, the ALO along with the FSO ensures the commander understands the capabilities and limitations of CAS (for example, time windows for use, airspace coordination, ground designator requirements) and munitions minimum risk estimate distances (known as REDs). The FSO is also responsible for integrating and synchronizing CAS missions into the fire support plan and scheme of fires. Depending on the situation and availability of CAS assets, the CAB may be allocated CAS missions or be assigned execution responsibility for a brigade CAS mission. More likely, however, CAS can be handed off to the CAB when the brigade has no viable target or in response to the CAB's request for immediate air support.

PREPLANNED CLOSE AIR SUPPORT

8-96. The fires cell must forward CAS requests as soon as they can be forecasted. These requests for CAS normally do not include detailed timing information because of the lead-time involved. Preplanned CAS requests involve any information about planned schemes of maneuver, even general information, which can

be used in the apportionment, allocation, and distribution cycle. The fires cell and TACP ensure the proper information is forwarded through higher echelons within the air tasking order planning cycle.

8-97. Preplanned targets may be diverted to higher priority targets. For this reason, the FSO should plan options for the engagement of CAS targets by other fire support assets.

IMMEDIATE CLOSE AIR SUPPORT

8-98. Immediate requests are used for air support mission requirements identified too late to be included in the current air tasking order. Those requests initiated below battalion level are forwarded to the CAB fires cell. At battalion level, the commander, FSO, TACP, and S-3 consider each request. Approved requests are transmitted by the TACP over the joint air request net (see figure 8-1) directly to the air support operations center, normally collocated with the division CP. The TACP at each intermediate headquarters monitors and acknowledges receipt of the request.

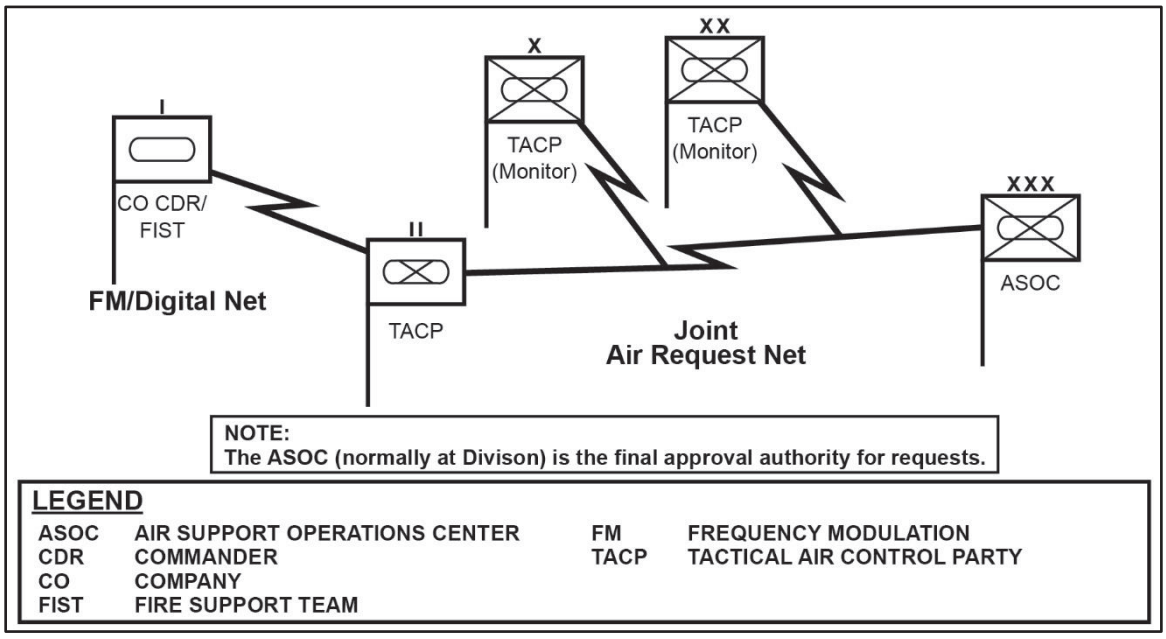


Figure 8-1. Immediate close air support request channels

JOINT FIRE OBSERVER

8-99. Joint fires observers are qualified and certified Soldiers who can request, adjust, and control surface-to-surface and air-to-surface fires, provide targeting information in support of Types 2 and 3 CAS terminal attack controls, and perform autonomous terminal guidance operations. The joint fires observer is not an additional position within an organization but rather an individual who has received the necessary qualification and certification. Within the CAB, Soldiers typically trained as joint fires observers include—

- Company FSOs and fire support NCOs.
- Infantry platoon FOs.
- Scout platoon members.

CLOSE AIR SUPPORT EXECUTION CONSIDERATIONS

8-100. The BCTs have an organic ADAM or BAE that is composed of ADA and aviation personnel and performs the airspace control integration function for the brigade in addition to its AMD and aviation functions. While other members of the brigade staff are key to airspace management (fires cell, ALO or TACP, UASs), the ADAM or BAE is the airspace control integrator for the S-3 operations. They exercise the brigade commander's authority over the airspace in the brigades AO for airspace users, to include CAS

in support of ABCT operations. The CAB TACP, ALO, and JTAC coordinate CAS through the ABCT fires cell unless immediate CAS is required as discussed above.

FRATRICIDE AVOIDANCE

8-101. The safety of ground forces is a major concern during day and night CAS operations. Most engagements that result in fratricide are caused by the incorrect identification of friendly troops operating in an AO. The use of proper authentication and ground marking procedures assures that a safe separation exists between the friendly forces and the impact area of aerial-delivered munitions. Proper radio procedures and markings assist the JTACs and the strike aircraft in the positive identification of ground forces and the boundaries in which they operate.

IDENTIFICATION OF FRIENDLY FORCES

8-102. Digital C2 platforms provide digital data on the location and identity of friendly units to enhance safety margins and reduce the potential of fratricidal engagements. Friendly unit locations and boundaries can also be marked using flash mirrors, marker panels, and direction and distance from prominent land features or target marks. Strobe lights are very good markers at night and in overcast conditions. They can be used with blue or infrared filters and can be made directional using any opaque tube. Any light that can be filtered or covered and uncovered can be used for signaling aircraft or marking friendly locations.

TARGET ACQUISITION

8-103. Targets that are well camouflaged, small and stationary, or masked by hills or other natural terrain are difficult for fast-moving aircraft to detect. Marking rounds (rockets) fired from aerial platforms or artillery can enhance target acquisition and help ensure first-pass success.

TARGET IDENTIFICATION

8-104. Strike aircraft must have a precise description of the target and know the location of friendly forces in relation to terrain features that are easily visible from the air. Airborne forward air controllers can assist JTACs, since they have a better view due to their altitude and may have flown over the general area many times.

FINAL ATTACK HEADING

8-105. Choice of the final attack heading depends upon considerations of troop safety, aircraft survivability, enemy air defense locations, and optimum weapons effects. Missiles or bombs are effective from any angle. Cannons, however, are more effective against the sides and rears of armored vehicles.

SUPPRESSION OF ENEMY AIR DEFENSES

8-106. SEAD operations target all known or suspected enemy AMD sites that cannot be avoided and that are capable of engaging friendly air assets and systems, including suppressive fires. The fires cell integrates SEAD fires into an overall fire plan. Synchronization of SEAD fires with the maneuver plan is accomplished using procedural control (an hour sequence), positive control (initiating fires on each target as the lead aerial platforms pass a predetermined reference point or trigger), or a combination of the two. Regardless of the technique, the FSO planning the SEAD must conduct detailed planning and close coordination with the S-2, S-3, ALO, Army aviation LNO, and field artillery battalion S-3 or fire direction officer.

WEATHER

8-107. Weather is one of the most important considerations when conducting unified land operations. Weather impacts all the warfighting functions and can hinder target acquisition and identification, degrade weapon accuracy and effectiveness, or negate employment of specific munitions types. Weather in space can impede operations through satellite communication interference, geolocation errors from the Global Positioning System, radar interference, missile launch trajectory errors, false sensor readings, and power grid

failures (see ATP 3-14.3 for more information). The S-3 requests weather data from the division staff weather officer to gain highly predictive and descriptive weather information for specific time periods and locations within the CAB's AO. This data improves their ability to determine when friendly and enemy capabilities will be impacted by weather.

ECHELONMENT OF FIRES

8-108. Understanding echelonment of fires is critical for effective synchronization of the CAB's fire support and maneuver plans. The purpose of echeloning fires is to maintain constant and overlapping indirect fire on an objective using the optimum delivery system up to the point of its RED. Echeloning fires provides protection for friendly forces as they move to and assault an objective. It inhibits the enemy from observing and engaging the assault by forcing them to take cover, and allowing friendly forces to continue the advance unimpeded.

CONCENT OF ECHELONGING FIRES

8-109. The concept of echeloning fires begins with attacking targets on or around the objective using the weapons system with the largest RED. As the CAB closes the distance en route to the objective, the fires cease or shift. This triggers the engagement of the targets by the delivery system with the next largest RED. The length of time to engage the targets is based on the rate of the friendly force's movement between the RED trigger lines. This process continues until the system with the smallest RED ceases or shifts fires and the maneuver unit is close enough to eliminate the enemy with direct fires or make its final assault and clear the objective.

8-110. The RED takes into account the bursting radius of particular munitions and the characteristics of the delivery system and associates this combination with a percentage for the probability of incapacitation of Soldiers at a given range. The most common munitions delivery systems available to the CAB include mortars, field artillery, Army attack aviation, and fixed-wing aircraft. The RED is defined as the minimum distance that dismounted friendly soldiers can approach the effects of friendly fires without suffering appreciable casualties of 0.1 percent or higher probability of incapacitation, while either standing or in the prone.

Note. Based upon the protection provided by both the tanks and IFVs within the CAB, the commander has the capability to maneuver friendly forces within the RED.

8-111. Commanders may maneuver their units within the RED area based on the mission; however, in doing so, they are making a deliberate decision to accept the additional risk to friendly forces. However, before commanders accept this risk, they should try to mitigate the probability of incapacitation. For example, maneuvering units in terrain that provides some protection from the effects of exploding munitions or requiring all armored vehicle crews to close and secure all vehicle hatches.

WARNING

REDs are for combat use and do not represent the maximum fragmentation envelopes of the weapons listed. REDs are not minimum safe distances for peacetime training use.

8-112. Using echelonment of fires within the specified RED for a delivery system requires the CAB commander to assume some risks. The CAB commander determines, by delivery system, how close fire will be delivered in proximity to friendly forces. The CAB commander makes the decision for this risk level, but relies heavily on the FSO's expertise. While this planning normally is accomplished at the battalion level, company FSO's may have input and should be familiar with the process if they are directly involved with executing any portion of CAB's fire plan. (Refer to ATP 3-09.32, appendix H for information on REDs and appendix I for information on minimum safe distances.)

ECHELONING PREPARATION FIRES

8-113. Echelonment of fires is accomplished when the maneuver commander wishes to conduct preparation fires on an objective. Preparation fire is normally a high-volume of fires delivered over a short period of time to maximize surprise and shock effect. Preparation fire can include electromagnetic attack and should be synchronized with other EW activities (see FM 3-09). Not all maneuver tasks warrant preparation fires. Some considerations for conducting preparation fires are—

- Will the loss of surprise from the preparation be offset by the damage done to the enemy?
- Are there enough targets and means to warrant a preparation?
- Can the enemy recover before the preparation fires can be exploited?

8-114. Echeloning a preparation is a nine-step process. The process is outlined and described in detail in ATP 3-09.42. The outline follows the following nine steps for echeloning a preparation:

- Determine what assets, to include ammunition, are required and what assets are currently available or allocated.
- Verify REDs and attack criteria with the CAB commander.
- Plan targets.
- Develop a communications plan.
- Determine what the rate of movement will be.
- Develop the schedule of fires and decide how the preparation schedule will be initiated.
- Brief the plan and confirm the method with the CAB commander.
- Complete the scheduling worksheet(s) within AFATDS or manually using DA Form 4656 (*Scheduling Worksheet*).
- Rehearse and refine the plan.

ECHELONMENT OF FIRES, EXAMPLE

8-115. When the lead elements of the CAB approach the designated phase line en route to the objective, the CAB FSO begins the preparation. Lead element observers and company FISTs track movement rates and confirm them for the CAB FSO. The CAB FSO may need to adjust the plan during execution based on unforeseen changes to anticipated movement rates. (See figures 8-2 through 8-6 on pages 8-23 through 8-27.)

8-116. As the CAB continues its movement toward the objective, the first delivery system engages its targets. It maintains fires on the targets until the unit crosses the next phase line that corresponds to the RED (in combat) of the weapon.

8-117. To maintain constant indirect fire on the targets, the unit starts the next asset before the previous asset ceases or shifts. This ensures no break in fires, enabling the friendly forces-approach to continue unimpeded. However, if the unit rate of march changes, the fire support system must remain flexible to the changes.

8-118. The CAB FSO shifts and engages with each asset at the prescribed triggers, initiating the fires from the system with the largest RED to the smallest. Once the maneuver element reaches the final phase line to cease all fires on the objective, the CAB FSO shifts to targets beyond the objective.

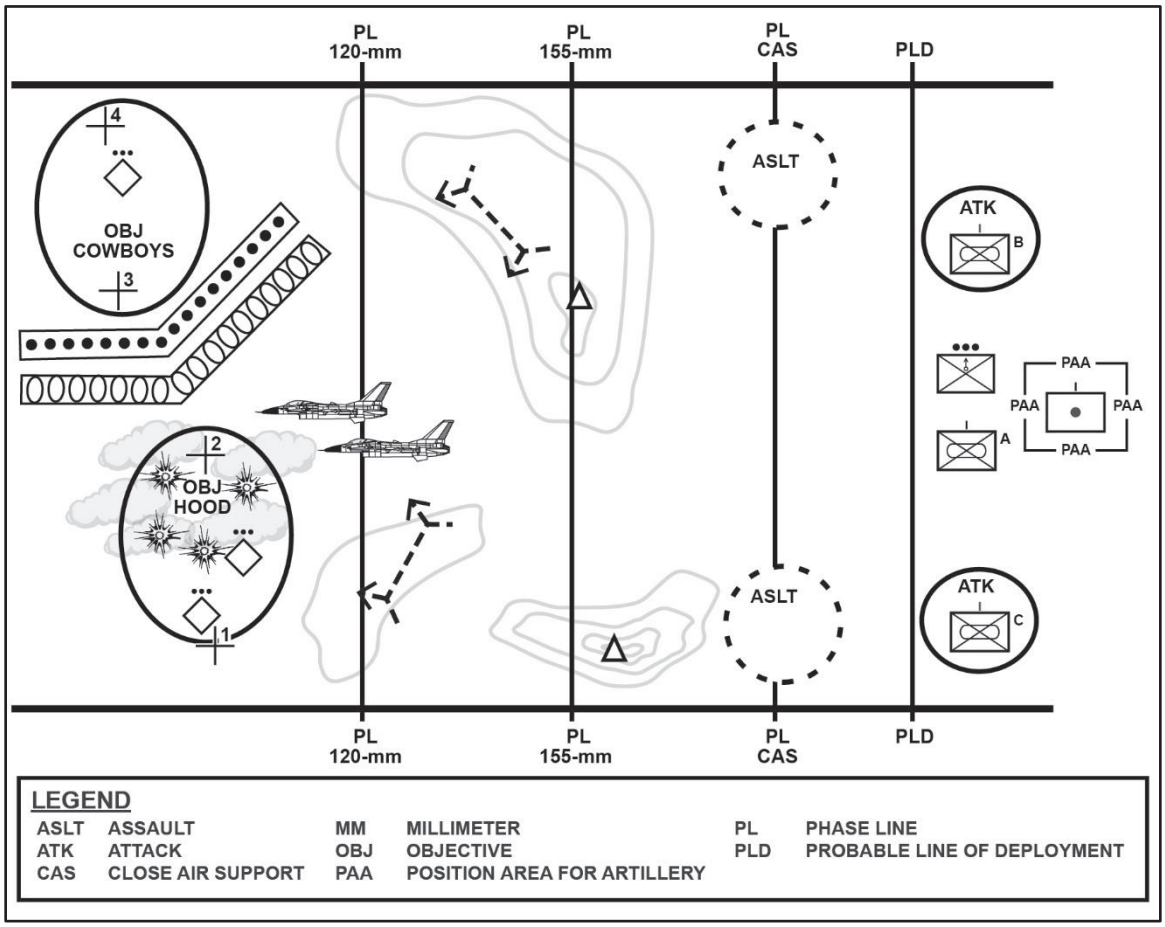


Figure 8-2. Close air support begins

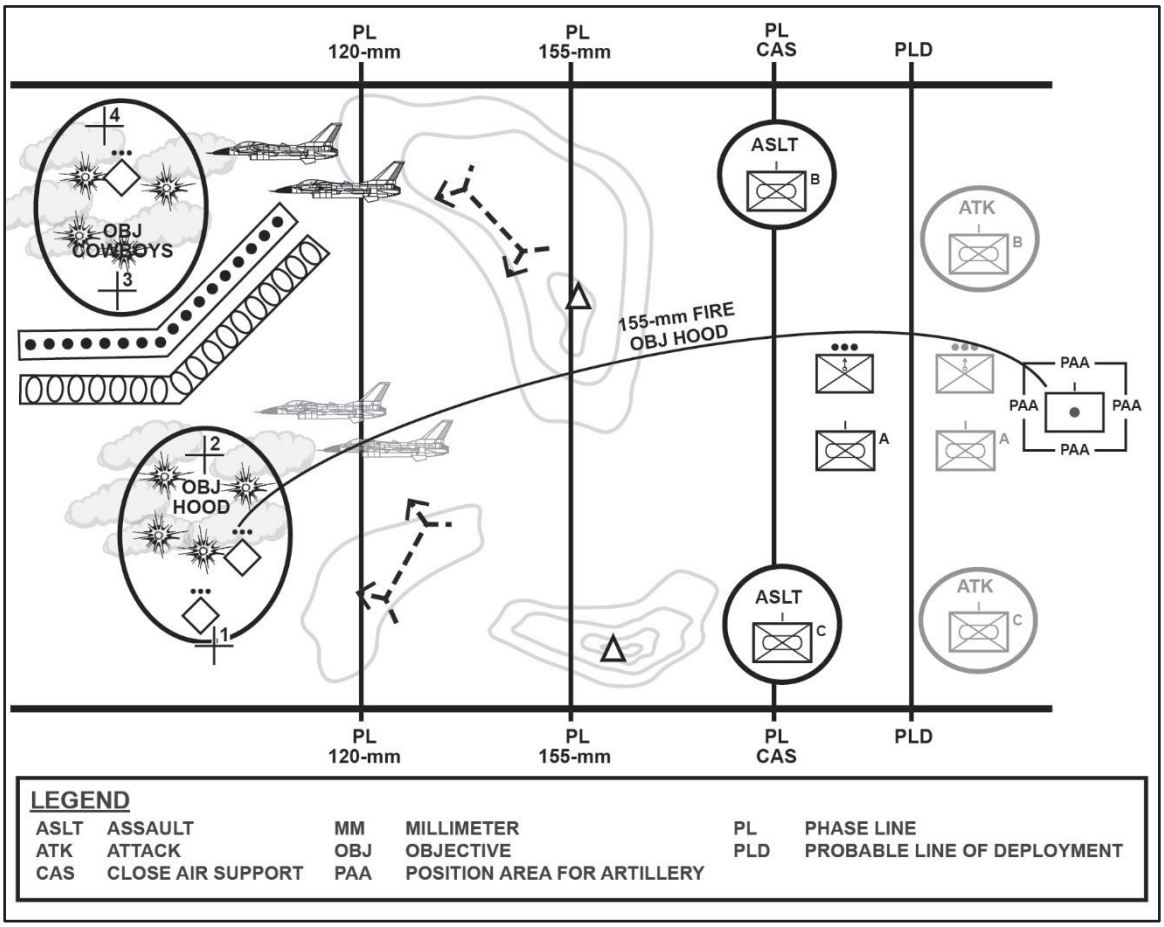


Figure 8-3. 155-mm fires on objective Hood; close air support shifts to objective Cowboys

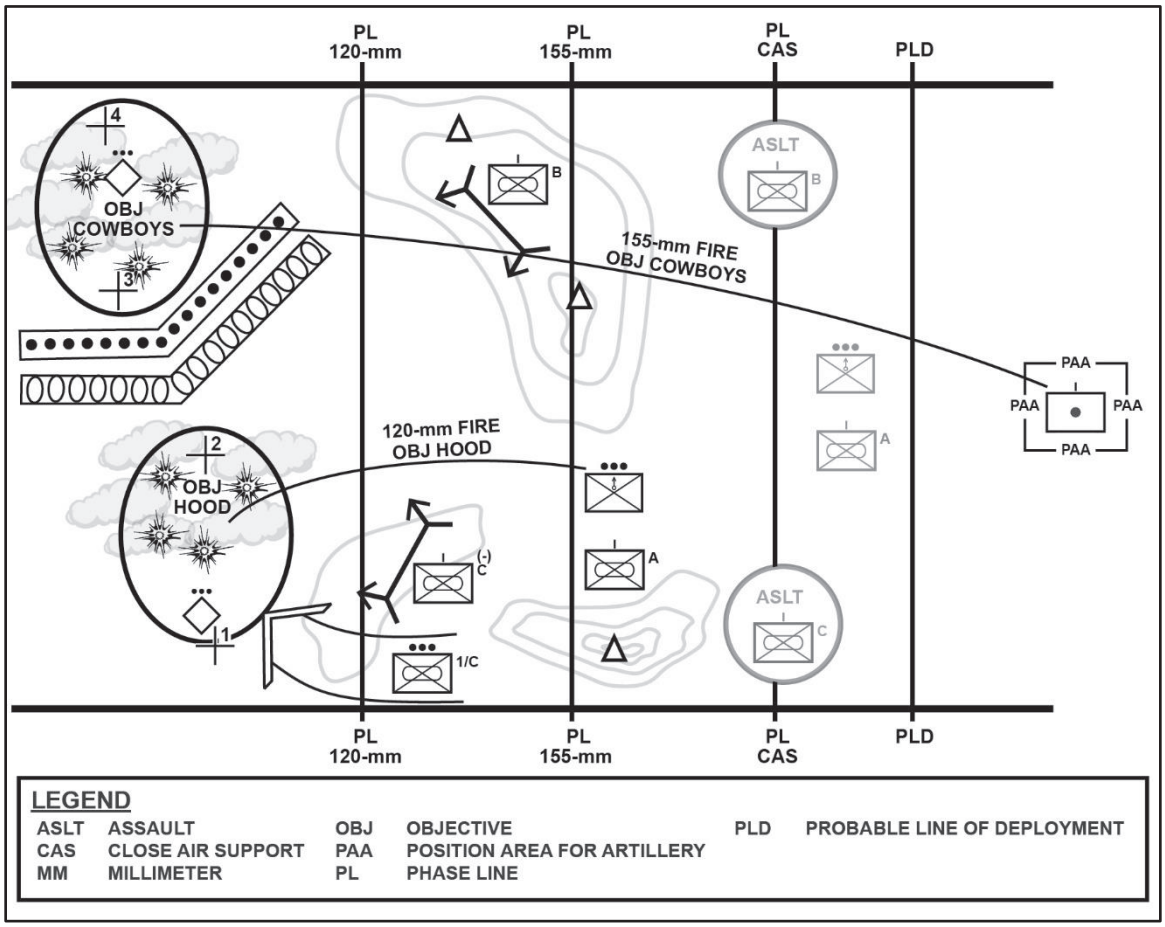


Figure 8-4. 155-mm shifts to objective Cowboys; 120-mm begins fires on objective Hood

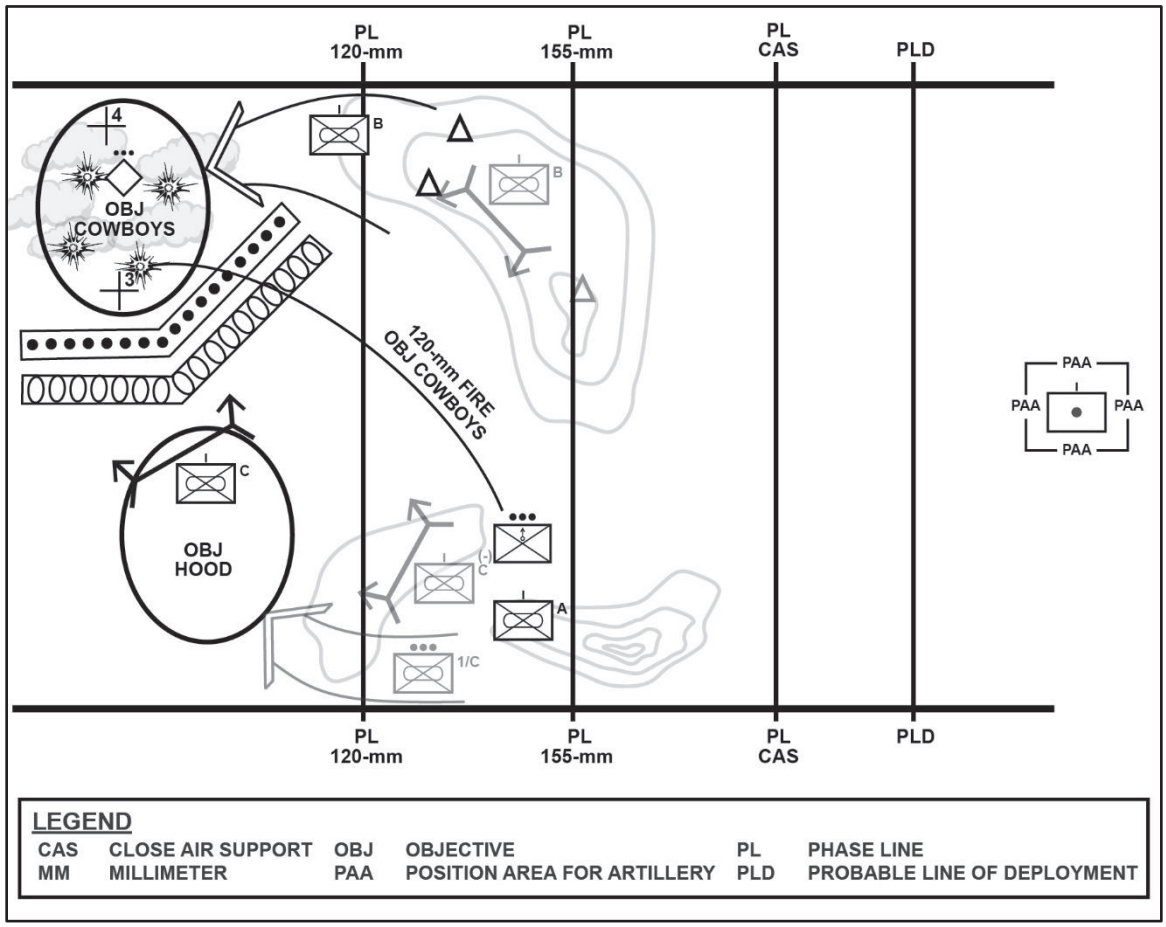


Figure 8-5. 120-mm shifts to objective Cowboys; 155-mm rounds complete

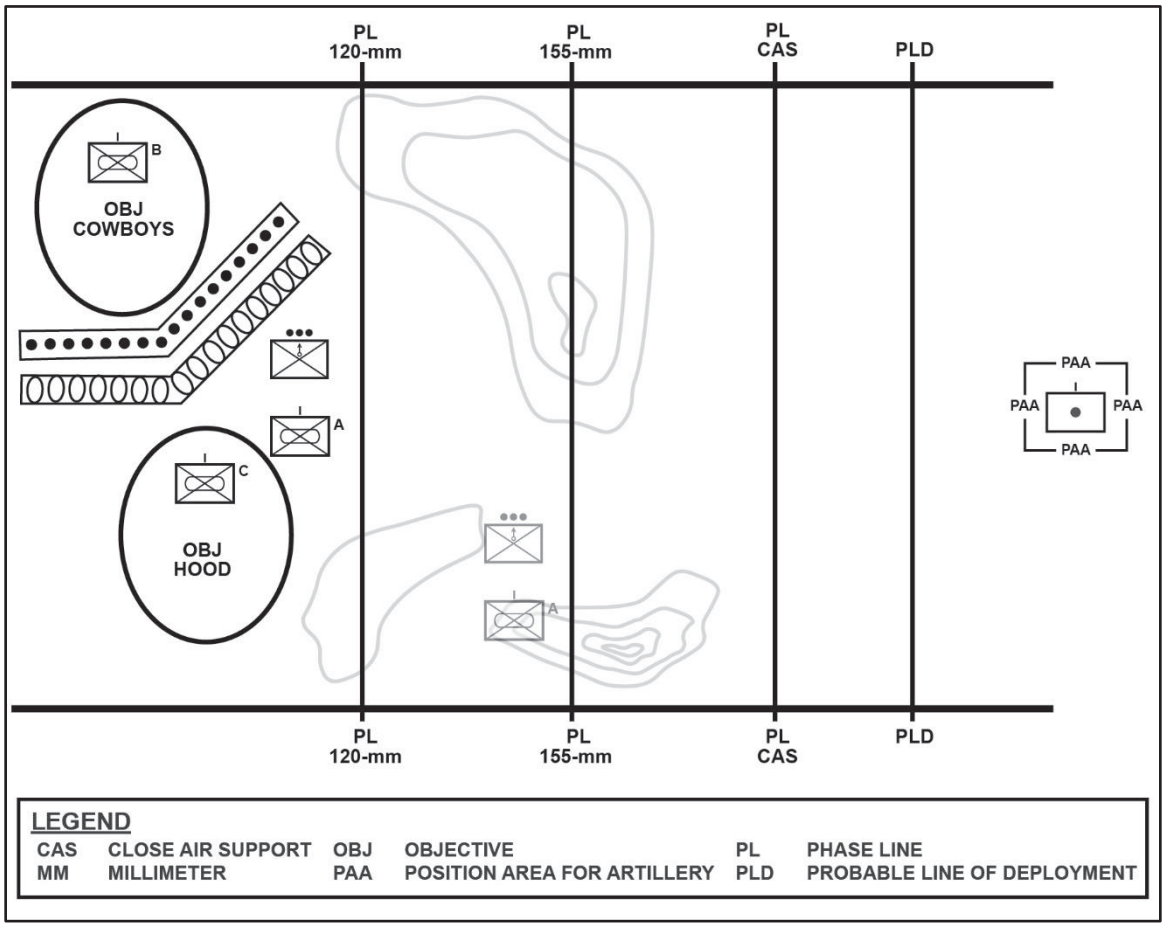


Figure 8-6. Combined arms battalion occupies both objectives Hood and Cowboys

SECTION IV – UNMANNED AIRCRAFT SYSTEMS

8-119. Numerous UASs are available to support the reconnaissance and surveillance plan. However, small UASs are limited by their short range which could compromise manned positions. Longer range tactical UASs at the BCT level can be tasked to contribute to the effort or observe areas not covered by other assets. The BCT's UAS asset, the RQ-7B Shadow can be requested by the CAB to support gaps in coverage.

8-120. A strong reconnaissance and surveillance effort requires relevant and rapid information exchange between the CAB and the BCT. Surveillance and reconnaissance actions result in information dominance and, once established, can convert the MTC into an attack.

8-121. UASs are capable of locating and recognizing major enemy forces, moving vehicles, weapon systems, and other targets that contrast with their surroundings. In addition, UASs are capable of confirming the position of friendly forces and locating the presence of noncombatant civilians. Employed together, UAS and ground reconnaissance make an excellent team.

8-122. While UASs are excellent force multipliers, they have limited effectiveness in locating enemy forces that are well covered or concealed. They also are not well suited for wide area searches. Rather, employing a UAS as part of an overall collection plan makes optimal use of the capabilities.

8-123. Before using a UAS, the unit must coordinate airspace with the BAE and the BCT collection manager. The minimum information required is—

- Time of launch or duration of mission.

- Location of the UAS-restricted operations zone.
- Launch and landing coordinates.
- Required altitude.
- Transponder (squawk) code (if applicable).
- Laser designation code (if applicable).

8-124. Currently, each Infantry company in the CAB has the RQ-11 Raven. The Raven is a man-portable, hand-launched small aerial vehicle designed for reconnaissance, surveillance, and remote monitoring. Two Soldiers operate the Raven as an additional duty. The Raven requires no class III fuel because batteries power an electric motor, which, in turn, powers the Raven. The Raven can be launched and recovered in minutes without special equipment on unprepared terrain. It can be either remotely controlled from the ground control unit or fly completely autonomous missions using Global Positioning System waypoint navigation. The aerial vehicle can be ordered to immediately return to its launch point simply by pressing a single command button.

8-125. Most Raven missions occur between 100 and 300 feet. Depending on the battery used, mission time can range from 60 to 90 minutes. The area covered during the mission is limited to a 10-kilometers LOS from the ground control unit, however, the use of pre-planned waypoint and handover between ground control units allows units to extend the range of Ravens beyond LOS of one ground control unit. A remote video terminal also provides a real-time video feed of the mission. The optics package includes an electro-optical, color camera nose for day operations, and two infrared or thermal noses for night operations.

8-126. Ravens are deployed to conduct reconnaissance and surveillance missions and convoy security to protect friendly forces. The Raven can provide information on enemy location, disposition, activity, and employ indirect fires. Ravens can perform real-time BDA. CABs may task Infantry companies to employ Ravens in support of the battalion information collection plan.

SECTION V – ENGINEER OPERATIONS

8-127. Engineers support CABs with combat, general, and geospatial engineer support. The focus of combat engineers is on executing engineer-related M/CM/S tasks. The CAB uses engineers to shape the AO by providing freedom of maneuver for friendly forces, denying movement to the enemy, and protecting friendly forces from the effects of enemy weapons systems. The CAB must fully integrate combat engineers into the battalion.

8-128. The TF engineer recommends engineer-related M/CM/S tasks and supports the CAB staff as the staff lead for the integration of these tasks while it plans operations throughout the battalion's AO. In addition, the TF engineer ensures that the staff integrates all military and civilian engineer efforts within the battalion's AO. That includes the following:

- Mobility operations preserve friendly force freedom of maneuver. Mobility missions include breaching and clearing obstacles, maintaining battlefield circulation, providing gap crossing, and identifying routes around contaminated areas and conducting engineer reconnaissance of enemy obstacle effort.
- Countermobility uses or enhances the effects of natural and man-made obstacles to deny enemy freedom of movement and maneuver. It limits the maneuver of enemy forces and enhances the effectiveness of fires. Countermobility missions include the creation and integration of obstacles and, potentially, the use of obscurants.
- Survivability operations protect friendly forces, equipment, and supplies from the effects of enemy weapons systems and from natural occurrences. Hardening of facilities and the fortification of battle positions are active survivability measures. CBRN passive-defensive measures are included in survivability operations.

MOBILITY, COUNTERMOBILITY, AND SURVIVABILITY

8-129. M/CM/S are types of operations consisting of specified or implied tasks that are critical to mission success. Ultimately, M/CM/S enables the CAB's main effort to achieve its task and purpose. It can be accomplished directly in support of the main effort or one of the CAB's shaping operations. Identification of

tasks helps to focus the development of plans, staff coordination, and allocation of resources. Failure to achieve an essential task for M/CM/S could require the commander to alter the tactical or operational plan.

8-130. A fully developed essential task for M/CM/S has a task, purpose, method, and effects. The task describes what objective the unit must achieve to support friendly formations or what it will do to an enemy formation's function or capability. The purpose describes why the task contributes to maneuver and is nested with the maneuver task and purposes. The method describes how the task will be accomplished by assigning responsibility to maneuver units, supporting units, or delivery assets and by providing amplifying information or restrictions. The effect is the general narrative of what the commander wants to happen.

8-131. The approved essential tasks for M/CM/S are described in the concept of operations paragraph within the base order. The concept of operations includes the logical sequence of essential tasks for M/CM/S that, when integrated with the scheme of maneuver, will accomplish the mission and achieve the commander's intent. The scheme of engineer operations describes the detailed, logical sequence of all engineer-related tasks within the CAB's M/CM/S operations, general engineering tasks, obscuration and geospatial engineering tasks, and their impact on friendly and enemy units. It also details how the supporting engineers are to accomplish the commander's essential tasks for M/CM/S.

ENGINEER SUPPORT

8-132. The CAB should expect to receive an engineer attachment for most combat operations. The organizational structure and capability of this engineer attachment varies. (See FM 3-96 for more information.)

8-133. The ABCT may receive additional engineer units to provide additional capability similar to its organic BCT engineer companies in the brigade engineer battalion with a combat engineer company as well as specialized additional breaching, clearing, or gap crossing capabilities and equipment. Priority of engineer support from the brigade engineer battalion is typically to mobility, although it may change to countermobility in anticipation of an enemy attack. The CAB can expect to receive some of the engineer augmentation received by the ABCT.

8-134. It is critical that supporting and supported elements understand their support relationships. The factors of METT-TC help to determine the appropriate command or support relationship. Distance and time are a key factor in determining the engineer company's ability to support its subordinates. When operating in large AO, the use of command relationships such as OPCON or TACON are often used, requiring the supported unit and FSC to provide logistical support required for the engineer augmentation. The engineer company does not have an organic maintenance team, so requesting and planning for additional maintenance, bulk fuel, and ammunition from the brigade engineer battalion FSC must also be considered.

EXPLOSIVE ORDNANCE DISPOSAL

8-135. The CAB usually requires EOD support for destruction of ammunition and rendering safe of explosive ordnance. EOD core competencies include—

- Ammunition and explosive safety (functioning, recovery, and disposal).
- Explosive ordnance and hazards (to include explosive remnants of war).
- Captured enemy munitions.
- Explosive ordnance technical information, which includes—
  - Electronic countermeasures.
  - Counter radio-controlled (improvised explosive device) EW.
  - Frequency exploitation capability.
  - CBRN and explosive threats and hazards.

8-136. EOD capabilities are not organic to the BCT. Usually, one EOD company provides direct support to a BCT. EOD platoons may provide direct support to a CAB based upon requirements identified during planning. Explosive hazard spot reports are processed through S-3 channels to the BCT-assured mobility section, which then forwards the request to the supporting EOD headquarters. Once explosive ordnance is

located and reported, the EOD headquarters determines which EOD capabilities will respond. Typical EOD capabilities in the BCT AO include—

- EOD response team, which includes—
  - Two to three Soldiers.
  - Smallest EOD maneuver element.
  - May be augmented with a security team.
- EOD platoon, which includes—
  - Eight to eleven Soldiers (based upon two to three Soldier response teams).
  - May be augmented with a security team.

Appendix A
Breaching Operations

Breaching activities are conducted to allow maneuver despite the presence of enemy reinforcing obstacles that are covered by fire and used to shape EAs. Breaching is an inherent part of maneuver and is one of the most difficult combat tasks to perform. Most combined arms breaching is conducted by a BCT or CAB as a tactical mission, but higher echelons may also execute operational-level combined arms breaching tasks. Breaching activities are characterized by thorough reconnaissance, detailed planning, extensive preparation and rehearsal, and a massing of combat power.

BREACHING

A-1. A *breach* is a synchronized combined arms activity under the control of the maneuver commander conducted to allow maneuver through an obstacle (ATP 3-90.4). Whenever possible, units should bypass obstacles, enabling them to maintain the momentum of the operation. Commanders must ensure that conducting the bypass provides a tactical advantage without exposing the unit to unnecessary danger. Breaching operations begin when friendly forces detect an obstacle and no bypass meeting the commander's criteria can be identified. Breaching operations end when a lane through the obstacle has been created and friendly forces destroy the enemy on the far side of the obstacle or the enemy can no longer affect the breach site with the use of direct fires.

BREACHING TENETS

A-2. Breaching tenets are characteristics common to successful breaching operations. The tenets apply whenever a unit plans to encounter an obstacle. Whether friendly forces are conducting an attack or conducting route or area clearance operations, they follow these breaching tenets:

- Intelligence.
- Breaching fundamentals.
- Breaching organization.
- Mass.
- Synchronization.

INTELLIGENCE

A-3. It is critical to determine how the enemy applies obstacles to the terrain. The commander and staff conduct IPB to develop an initial SITTEMP with expected obstacle locations. Combat information gathered by reconnaissance is essential to developing a finalized SITTEMP and final point of breach locations. Unverified enemy SITTEMPs might cause friendly forces to deploy to reduce obstacles early, waste mission time attempting to locate nonexistent obstacles, develop COAs using ineffective obstacle reduction methods, or become surprised by an obstacle. Engineer teams can augment reconnaissance forces as part of the overall information collection plan. Examples of the OBSTINTEL requirements include—

- Location of existing or reinforcing obstacles.
- Orientation and depth of obstacles.
- Soil conditions (determines ability to use mine plows).
- Lanes or bypass locations.
- Composition of minefields (buried or surface laid antitank and antipersonnel mines).

- Types of mines and fuses (determines effectiveness of mechanical or explosive reduction techniques).
- Composition of complex obstacles.
- Suspected intent of obstacle.
- Location of direct- and indirect-fire systems overwatching obstacle.

BREACHING FUNDAMENTALS

A-4. Successful obstacle breaching depends on the CAB effectively applying the breaching fundamentals of SOSRA. Deliberate, hasty (includes in-stride), and covert are the three general types of breaching operations. (See ATP 3-90.4 for more information.) Breaching fundamentals always apply; however, they must adapt to the varying factors of METT-TC. Breaching fundamentals include—

- Suppression. Units use direct and indirect suppressive fires to protect friendly forces reducing and maneuvering through an obstacle. Typically, successful suppression initiates the rest of the actions at the obstacle.
- Obscuration. Obscuration degrades enemy observation and target acquisition by enemy forces while concealing friendly force reduction and assault activities. Obscuration planning factors include wind direction, type of obscuration systems available (mechanical smoke, artillery-delivered, mortar-delivered, smoke pots), and the capabilities and limitations of these systems. Typically, the most effective placement of obscuration is between the obstacle and the overwatching enemy forces.
- Secure. Friendly forces secure the point of breach to prevent enemy forces from interfering with the reduction of lanes and passage of assault forces. The CAB must provide the breach force with sufficient combat power to secure the point of breach.
- Reduction. The creation of lanes through an obstacle is reduction. Units cannot accomplish reduction until they achieve effective suppression and obscuration and secure the point of breach. The breach force reduces, proofs, and marks the required number of lanes to pass the assault force through the obstacle. Follow-on forces will continue to improve and reduce the obstacle when required.
- Assault. The assault force's primary mission is to seize terrain on the far side of the obstacle to prevent the enemy from placing or observing direct and indirect fires on the reduction area.

BREACHING ORGANIZATION

A-5. Commanders develop COAs that organize friendly forces into a support force, a breach force, and an assault force to quickly and effectively execute the breach fundamentals. (See table A-1.)

- Support force responsibilities are to isolate the reduction area with direct and indirect fires, suppress enemy direct and indirect fire at the point of breach, and control obscuration.
- The breach force must have sufficient combat power to secure the point of breach as well as sufficient reduction capabilities to clear the required number of lanes through the obstacle. Critical friendly zones should be activated at the point of breach before commitment of the breach force to protect it from enemy indirect fires.
- The assault force's primary mission is the destruction of enemy forces and the seizure of terrain on the far side of the obstacle to prevent the enemy from placing direct fires on the breach lanes.

Table A-1. Breaching organization

Breaching Organization	*Breaching Fundamentals*	*Responsibilities*
Support Force	Suppress. Obscure.	Support by fire. Suppress enemy with direct and indirect fire. Control obscuration (on the enemy) and screening obscuration (on the friendly movement).
Breach Force	Suppress (provides additional suppression). Obscure (provides additional obscuration in the reduction area). Secure (provides local security). Reduce.	Confirm / Deny suspected bypass(es) near point of breach. Establish near-side security. Reduce the obstacle. Proof and mark lanes or bypasses. Establish far side security. Defeat forces that can place immediate direct fires on the reduction area. Report the lane status and location.
Assault	Assault. Suppress (if necessary).	Assist the support force with suppression if the enemy is not effectively suppressed. Secure the far side of an obstacle. Destroy any enemy forces capable of placing direct fires on the reduction area from the far side of an obstacle. Be prepared to breach follow-on and protective obstacles after passing through the reduction area.

MASS

A-6. The support force achieves mass by fixing and isolating enemy forces on the far side of the obstacle. The assault force achieves mass by projecting a 3:1 combat power ratio at the point of penetration (typically one isolated enemy platoon in an enemy company-sized defense for a CAB breach). The breach force achieves mass by planning 50-percent redundancy of breach assets, creating one vehicle lane per each assaulting company-sized element, and creating two lanes separated by 800 to 1,000 meters (terrain dependent) to pass the CAB.

SYNCHRONIZATION

A-7. Synchronization of all combined arms elements to successfully achieve the breach fundamentals is essential. Commanders achieve synchronization through detailed reverse planning of offensive operations (from the objective back to the AA) by issuing clear subordinate unit instructions, planning effective mission command, and ensuring their forces are well rehearsed. Detailed reverse planning is initiated during IPB and development of the enemy SITTEMP. The scheme of maneuver, engineer operations, fires, air defense, and actions at the obstacle are all based on this common SITTEMP. For example, the planning should consider the following:

- Actions on the objective determine the size and composition of the assault force based on desired 3:1 combat power ratio.
- The size of the assault force determines the number and location of breach lanes required.
- Lane requirements and disposition and composition of the obstacles determine the mobility asset requirement of the breach force.
- The enemy's ability to interfere with the breach force at the point of breach determines size and composition of the security element within the breach force.
- The enemy's ability to mass fires on the point of breach determines the amount of suppression required as well as the size and composition of the breach force.

A-8. Reverse planning begins with actions on the objective and moves backward to the LD. Reverse planning should include enemy special munitions capabilities and effects. (See figure A-1.)

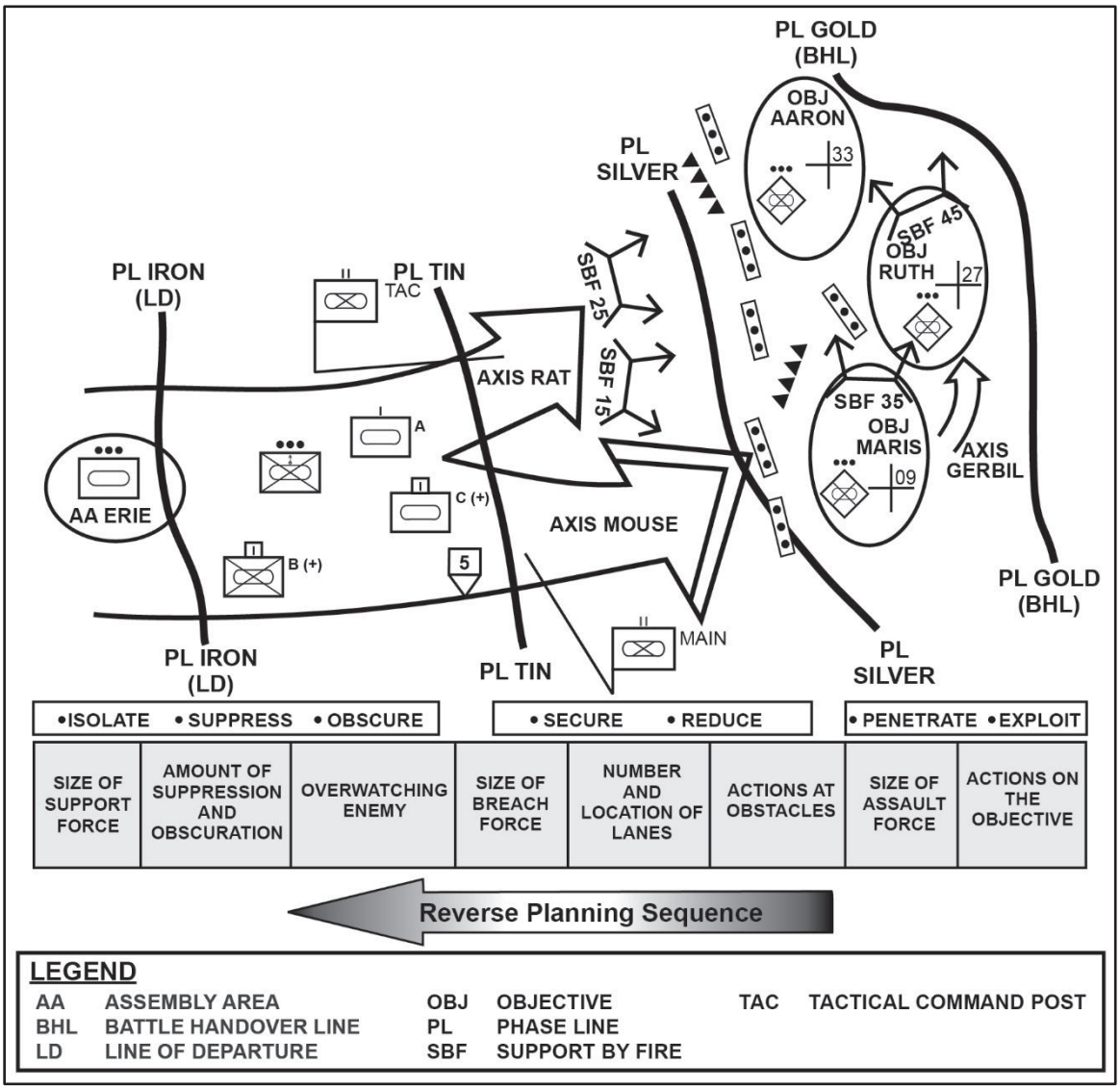


Figure A-1. Breach reverse planning sequence

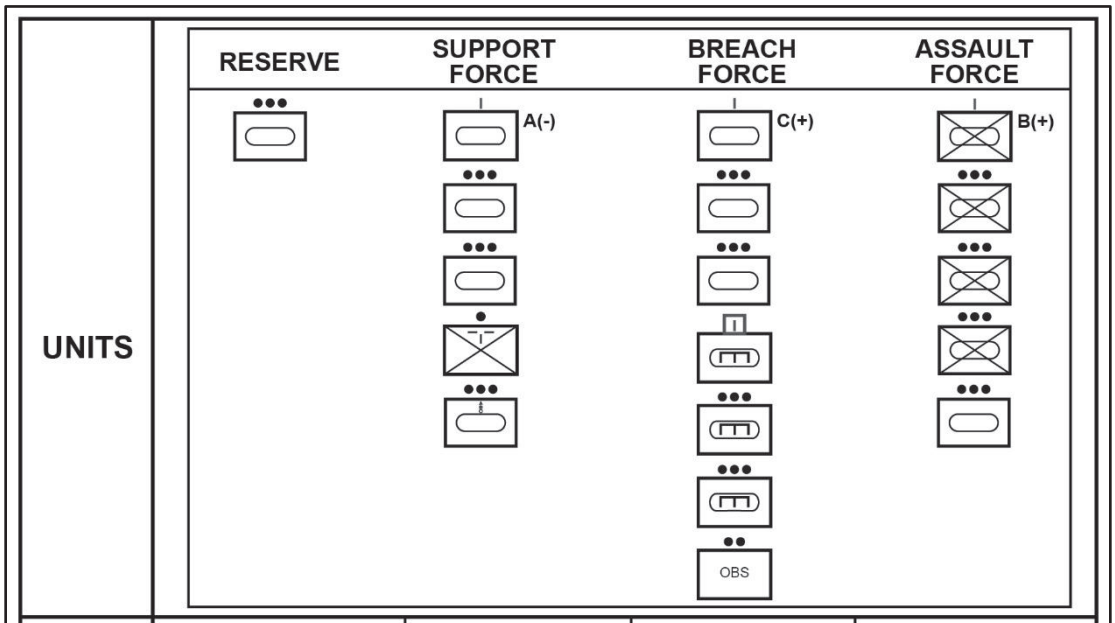
PLANNING BREACHING OPERATIONS

A-9. Planning a breaching operation begins with the intelligence and engineer estimates. The CAB S-2 templates the enemy's threat characteristics and the battalion engineer assesses its engineer capabilities. Both the engineer and the S-2 template probable locations for the enemy's tactical and protective obstacles, based on threat pattern analysis. The battalion staff develops COAs using threat pattern analysis, and the engineer staff officer develops the scheme of engineer operations for each COA. After selecting a COA, the battalion commander must carefully allocate available capabilities to the breach, assault, and support forces to ensure that they can accomplish their assigned tasks.

A-10. Identifying the enemy's vulnerability is important so that the force can mass direct and indirect fires and combined arms against that weakness. The CAB isolates a portion of the enemy to achieve the desired combat ratio at the point of assault. It achieves mass by hitting the enemy from multiple directions and by narrowing attack zones to concentrate its force against a smaller defending element.

A-11. Commanders must not commit all the engineers to breach the first obstacle system unless they are willing to risk their capability to breach follow-on obstacles. When the attack requires the breaching of two or more complex obstacle systems, the battalion commander must retain enough engineers and sufficient breaching assets to reduce subsequent obstacles. Depleted engineer forces need significantly more time to conduct follow-on breaches. In such cases, the battalion commander needs to request additional engineers to support the BCT's mission.

A-12. In task-organizing for a combined arms breach during a deliberate operation, the CAB commander considers organizing a support TF with weapons capable of a high volume of direct suppressive fires. The breach force disposition and composition is METT-TC dependent and is determined by combat power required to secure the point of breach and the reduction capabilities required to create the lanes. Figure A-2 on page A-6 depicts the task-organization for the concept of operations.



FORCE	RESERVE	SUPPORT	BREACH	ASSAULT
LD to PL TIN	AA ERIE	Lead Team AXIS RAT	Lead Team AXIS MOUSE	Follow Team E AXIS MOUSE
PL TIN to PL SILVER	AA ERIE	**Occupy SBF 15 Orient on TRP 09**	Identify breach points	Occupy CKP 5
Obstacle reduction	O/O Occupy SBF 25 Orient on TRP 27	Remain SBF 15 Orient on TRP 09	**Conduct breach Create & mark 2 lanes**	Identify lanes
Attack OBJ MARIS	O/O Occupy SBF 25 Orient on TRP 27	Shift fires to TRP 27	Secure lanes	**Seize OBJ MARIS Occupy SBF 35 Orient TRP 27**
Attack OBJ RUTH	O/O Occupy SBF 25 Orient on TRP 33	Shift fires to TRP 33	Secure lanes	Shift fires Orient TRP 33
Attack OBJ AARON	Move to OBJ RUTH	Lift fires	Secure lanes	**Seize OBJ RUTH AXIS GERBIL Occupy SBF 45**
Consolidate	Prepare hasty defense Orient East	Occupy CKP 5 as Reserve	Improve lanes Mark obstacles	Prepare hasty defense Orient South East

Note: Main effort has double box.

LEGEND

AA	ASSEMBLY AREA	OBJ	OBJECTIVE	SBF	SUPPORT BY FIRE
CKP	CHECKPOINT	OBS	OBSCURATION	TRP	TARGET REFERENCE POINT
CBT	COMBAT	O/O	ON ORDER		
LD	LINE OF DEPARTURE	PL	PHASE LINE		

Figure A-2. Organization for breaching operation

A-13. The CAB commanders maneuver their combat power to create sufficient suppression and security for the breach to be successful. Adequate suppression and obscuration trigger the commitment of assault and breach forces. When the breaching site is free of direct fires, the commander deploys the breach force to create lanes through the obstacle. The commander must sense the progress of the breach in order to decisively commit the balance of the force through the obstacle to continue the mission.

A-14. The breach and assault forces could require fires and obscuration under their control in addition to that controlled by the support force. Support, breach, and assault forces place direct fires on enemy positions. This makes synchronization of direct and indirect fires extremely complex. Fire control must be planned in detail using simple and well-understood control measures carefully rehearsed.

A-15. Sometimes the BCT conducts a combined arms breach during a deliberate operation or plans to conduct a passage of lines of a large force after a breach. In such cases, breach plans must include detailed planning for the staging and movement of follow-on forces and equipment.

PREPARING FOR BREACHING OPERATIONS

A-16. Commanders should have their staff engineer officer assess if the obstacle consists of natural or man-made gap-type obstacles (tank ditches, dry stream beds, wadis, and so forth) and request appropriate bridging assets. It is imperative CAB commanders request bridging assets early as numbers are limited and obstacles of this type will slow operational momentum. Commanders should not attempt river crossings that exceed engineer assets ability to bridge the distance. If crossing a water obstacle over 60 feet, the operation will transition to a deliberate gap crossing. A deliberate gap crossing requires synchronization and mission command at the BCT level. A CAB does not execute this type of operation. (See ATP 3-90.4 for more information.)

A-17. The CAB continues an aggressive information collection plan using scouts, engineer reconnaissance teams, patrols, and aerial reconnaissance. The S-2 and the staff engineer continually refine the template based on intelligence. The commander may adjust task-organization as staff refinement uncovers more details of the defense and obstacle system. It also uses this information during the combined arms rehearsals.

A-18. Continuous and aggressive information collection updates the enemy template as information becomes available. These changes are reflected as soon as possible in the rehearsal area. If updates become available after the last rehearsal, the CAB S-3 immediately passes this data to the affected force elements, especially the breach force.

A-19. The CAB meticulously plans, manages, and controls the rehearsals. The battalion S-3 allocates time for each unit to perform a combined arms rehearsal. When possible, the force rehearses the operation under the same conditions expected during the actual engagement, including battlefield obscuration, darkness, CBRN mission oriented protective posture, and inclement weather. The rehearsal site reflects the actual obstacle system in as much detail as possible, as well as examples of lane marking. The force chooses terrain as similar as possible to that of the operational area and constructs a practice obstacle system based on the OBSTINTEL. Rehearsals include a leader and key personnel walkthrough, as well as individual and full-dress rehearsals by support, breach, and assault forces.

A-20. When the commander rehearses the breaching operation, the commander also rehearses several contingency plans. The contingencies should include possible enemy counterattacks and attack by enemy indirect-fire systems. Rehearsals also include enemy use of CBRN munitions and the FASCAM deployment.

COLLECTIVE OBSTACLE INTELLIGENCE

A-21. The breach will fail if the CAB does not have enough combat power to suppress the enemy's fires or enough breaching equipment to reduce the obstacles. Therefore, the size of the enemy force and the type of obstacle are PIRs for reconnaissance. The S-2 confirms and updates the enemy template as intelligence reports are received. If necessary, the S-3 revises the plan. As the commander's PIRs are answered, it may be necessary to refine the task-organization of support, breach, and assault forces and the concept of operations. The sniper squad can also keep the area of the breach under observation and continually update the S-2.

A-22. Engineer reconnaissance teams can be attached to the battalion scout platoon to gather detailed information on obstacle locations, composition, and orientation. Like any specialized collection asset, the engineer teams work for the scout platoon leader and are integrated into the total battalion collection plan. The battalion S-2 and engineer provide the scout platoon with specific NAIs for engineer teams to reconnoiter.

A-23. The OBSTINTEL collection is particularly difficult when the breach is part of an MTC. Although engineers may be attached to the scout platoon, their ability to close with and gather detailed OBSTINTEL in time for the advance guard or main body to react is limited. Furthermore, organizing for a breach in an MTC quickly consumes the number of engineers available for the reconnaissance effort. The commander must determine which has a greater effect on the CAB's mission accomplishment: an engineer squad performing reconnaissance or an engineer squad conducting breaching.

SUSTAINMENT SUPPORT

A-24. Combat trains usually transport critical engineer class V materials, such as an emergency resupply of demolitions for the engineer force. The battalion commander, engineer, and S-4 anticipate when these capabilities might be used and develop a plan for rapidly moving them forward. Plans must be in place for evacuating casualties since increased numbers of casualties should be anticipated during a breach operation.

EXECUTING BREACHING OPERATIONS

A-25. The force crosses the LD organized to conduct the combined arms breach. If the battalion encounters obstacles en route, it executes the breach with this organization. On arrival, the scout platoon adjusts artillery fires on the enemy positions to cover deployment of the support force. The support force moves into position and establishes its SBF position. Breach and assault forces move into position and prepare to execute their tasks. The battalion commander continues to incorporate last-minute information into the plan and makes final adjustments of positions and locations.

A-26. The support force occupies its SBF position and begins suppressing with direct fires. The battalion FSO executes group targets planned on enemy positions. Mortar and artillery smoke are adjusted to obscure the breaching site from enemy target acquisition. The breach force begins movement once suppression and smoke are effective, based on clearly defined commitment criteria. Timing is critical since the high volume of suppressing fires and obscuration can be sustained only for a short duration. SBF positions have interlocking sectors of fires and are positioned to ensure suppression of the enemy's positions.

A-27. Once suppression and obscuration have built to effective levels, the breach force moves forward to the breaching site. The reduction element creates the lanes, while the security force provides for local security. The assault force penetrates the objective after receiving the order from the battalion commander. Due to the complexity of the breach, the mission command systems spread out to ensure synchronization. The battalion S-3 may control the multi-company support force while the CAB commander is in position to best control the entire breaching operation.

A-28. A CAB needs at least one lane for each assaulting company (vehicle mounted) or one footpath per assaulting platoon (dismounted). The distance between lanes is tied to the concept of operations, the complexity of the terrain, and the composition and disposition of the overwatching force. General guidelines for the distance between lanes are—

- 800 to 1,000 meters between vehicle lanes (based on the complexity of the terrain and the probability of enemy FASCAM employment).
- Up to 100 meters between footpaths (usually based on the ability of the support force to achieve suppressive fires).

A-29. Dismounted lanes should not occur during initial, kinetic breach of tactical obstacles unless absolutely necessary. The dismount lane should be created after the completion of the vehicle lane, as a vehicle mine clearing line charge can scatter unexploded mines and debris over 100 meters. Antipersonnel obstacle breaching system are preferred for the dismount lane, however a single vehicle mounted mine clearing line charge can be utilized to clear a single footpath.

A-30. The enemy obstacle system acts as a choke point and is dangerous even after the CAB has overcome the defenses. The CAB constructs additional lanes to speed the passage of follow-on forces. Next, it widens the lanes to allow two-lane traffic through the obstacles and constructs switch lanes to prevent blocking by disabled vehicles or artillery fires. Deliberate marking and fencing systems are installed, and military police capabilities establish the necessary traffic control. Eventually, follow-on engineer forces clear the obstacles and eliminate the choke point. After passage through the lanes, the combined arms force continues its mission.

A-31. Both the breaching and follow-on force must be aware of the potential for the enemy to reseed breached obstacles with remotely delivered FASCAMs or other rapidly emplaced obstacles. The breaching commander may develop a response plan and position remaining mobility assets near the breach lanes to re-breach, repair, or improve lanes as necessary. The CAB's assets of mine plow and rollers can be used as redundant means for obstacle reduction. In addition, the commander can develop a reaction plan for combined arms or other forces that encounter a reseeded portion of the obstacle while passing through the lane. The commander of the follow-on force, regardless of the reported status of the breach lanes the unit is about to pass through, should organize mobility assets forward in the formation that are prepared to re-breach, repair, or improve these lanes as necessary.

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Appendix B

Operations in CBRN Environments

The enemy may employ weapons of mass destruction to gain advantage over U.S. forces by producing casualties, destroying or disabling equipment, imposing a significantly changed risk analysis, contaminating terrain, overwhelming medical and logistic support, and disrupting the operations. Chemical and biological agents and nuclear weapons may be employed separately or together and normally supplement conventional weapons. Planning must routinely address the potential use of each of these as well as measures to mitigate the impact on operations.

OVERVIEW

B-1. The intentional or unintentional release of CBRN material, including toxic industrial materials, and nontraditional agents can seriously challenge military operations. Chemical weapons could be used early in an operation to hinder U.S. and partner nation's movement; disrupt its command, control, and communications; produce casualties; destroy or disable equipment; and disrupt operations. Biological weapons could target rear area objectives such as food supplies, water sources, troop concentrations, convoys, and urban and rural population centers. Any of these materials may be employed separately or together and may supplement conventional weapons. The CAB commanders must anticipate and plan for operations to be conducted in CBRN environments.

B-2. *Chemical, biological, radiological, and nuclear operations* is the employment of capabilities that assess, protect against, and mitigate the entire range of CBRN incidents to enable freedom of action (FM 3-11). Effective CBRN operations require the full integration of CBRN Soldiers, units, and staffs as member of the combined arms team. CBRN forces integrated with maneuver forces contribute to a shared understanding of the operational environment and CBRN threats within it. CBRN staffs are the commander's subject matter experts providing the necessary expertise in understanding CBRN conditions to provide advice to the commander on information collection, CBRN defense, and response actions to take while conducting operations. They integrate information collected from all tasks to gain a better understanding of the CBRN environment and its potential impact on operations.

CBRN ENVIRONMENT

B-3. *Chemical, biological, radiological, and nuclear environment* is an operational environment that includes chemical, biological, radiological, and nuclear threats and hazards and their potential resulting effects (JP 3-11). CBRN environment conditions can be the result of deliberate enemy or terrorist actions or the result of an industrial accident. CBRN threats include the intentional employment of, or intent to employ, weapons or improvised devices to produce CBRN hazards. CBRN hazards include those created from accidental or intentional releases of toxic industrial materials, biological pathogens, or radioactive matter. Toxic industrial material is a generic term for toxic, chemical, biological, or radioactive substances in solid, liquid, aerosolized, or gaseous form that may be used or stored for industrial, commercial, medical, military, or domestic purposes. The following paragraphs provide a general description of CBRN hazards, refer to FM 3-11 for more information or TM 3-11.91 for technical information on CBRN hazards.

CHEMICAL HAZARDS

B-4. Chemical hazards are any chemicals (manufactured, used, transported, or stored) that can cause death or other harm through the properties of those materials. They can be divided into the following categories—chemical warfare agents, military chemical compounds (such as riot control agents), or toxic industrial

chemicals. Chemical agents can be classified according to their physical state, physiological action, and use. Operationally, chemical agents are best thought of as either persistent or nonpersistent:

- A *persistent agent* is a chemical agent that, when released, remains able to cause casualties for more than 24 hours to several days or weeks (JP 3-11).
- A *nonpersistent agent* is a chemical agent that when released dissipates and/or loses its ability to cause casualties after 10 to 15 minutes (JP 3-11).

BIOLOGICAL HAZARDS

B-5. A *biological hazard* is an organism, or substance derived from an organism, that poses a threat to human or animal health (JP 3-11). Biological hazards include infectious agents and other biological hazards that may be generated as infectious waste (such as needles and syringes) and material contaminated by bodily fluids. Biological hazards present unique challenges due to their easy clandestine employment, delayed onset of symptoms, communicability, and detection difficulties.

RADIOLOGICAL HAZARDS

B-6. Radiological hazards include any nuclear radiation (such as electromagnetic or particulate radiation) that is capable of producing ions to cause damage, injury, or destruction. Radiological hazards also include toxic industrial materials. Enemies could disperse radioactive material in a number of ways, such as—

- Arming the warhead of a missile with radioactive material from a nuclear reactor.
- Releasing low-level radioactive material intended for use in industry or medicine.
- Damaging or destroying a research or power-generating nuclear reactor, or disseminating material from it.

NUCLEAR HAZARDS

B-7. Nuclear weapon effects are qualitatively different from biological or chemical weapon effects. The nature and intensity of nuclear detonation effects are determined by the type of weapon, its yield, and the physical medium in which the detonation occurs. The effects of a nuclear detonation include—

- Blast produces shockwaves that can cause critical injuries to personnel and destroy material.
- Thermal radiation causes severe burns and secondary fires.
- Electromagnetic pulse can cause widespread disruption or electrical and electronic equipment.
- Ionizing radiation is a significant threat to personnel and materiel.
- Residual radiation fallout may be a lingering, widespread hazard that limits military operations.

B-8. Cover and shielding offer the best protection from the immediate effects of a nuclear detonation; this includes culverts, ditches, or fighting positions with 18 inches of overhead cover. Soldiers should cover exposed skin and stay down until the blast wave passes and debris stops falling. Immediately after a nuclear detonation, continuous radiation monitoring and reporting should begin (for CBRN reports see FM 3-11).

B-9. Operations in a nuclear environment are complicated by the necessity to control exposure of personnel to nuclear radiation. An operation exposure guide determines the maximum radiation dose to which units may be exposed and still accomplish a mission. Determination of this dose is based on the accumulated dose or radiation history of the unit (see ATP 3-11.32).

CBRN OPERATIONS

B-10. All operations in CBRN environments are supported by the CBRN functions of assess, protect and mitigate. The CBRN functions communicate the tasks that provide the Army the means to accomplish its mission in a CBRN environment. The CBRN functions support CBRN defense tasks, including active and passive CBRN defense. *Chemical, biological, radiological, and nuclear defense* are the measures taken to minimize or negate the vulnerabilities and/or effects of a chemical, biological, radiological, or nuclear hazard or incident (JP 3-11).

ASSESS CBRN HAZARDS

B-11. Assessing hazards allows proactive decision making and encompasses all of the capabilities from individual Soldiers, CBRN staffs to CBRN units to detect, evaluate and determine the characteristics of CBRN hazards in the operational environment that bear on operational and tactical decisions. Through information collection and dissemination, effective warning and reporting, modeling, and hazard awareness and understanding CBRN staffs and units provide the Army the ability to estimate potential for (or the existence of) CBRN threats and hazards.

B-12. The CAB may receive CBRN support from the BCT or its supporting CBRN hazard response company. This support could be to augment its organic decontamination assets, or provide CBRN reconnaissance support. One example would be if a CAB requires thorough decontamination, a hazard assessment platoon from the hazard response company may be required. If the CAB is tasked to exploit a major CBRN facility a large portion of the hazard response company may be required to provide CBRN support. Such support is typically provided on a mission basis. Considerations when a CAB receives a CBRN unit include:

- The CAB must plan decontaminants, water, personal protective equipment, and replacement classes of supply for its contaminated vehicles and equipment. The CBRN unit may also require personnel augmentation for personnel decontamination during thorough decontamination operations.
- CBRN units possess limited organic sustainment capacity and therefore, may also require support from the CAB especially, if longer duration missions are required which exceed the CBRN unit's capacity.

B-13. At the tactical level, reconnaissance and surveillance are the primary means by which the commander conducts information collection to answer CCIRs. Assessing CBRN hazards provides the foundation for an accurate and timely understanding of CBRN impacts on the OE. CBRN staff and reconnaissance and surveillance leaders must be integrated in the IPB process, provide operational and technical advice and planning recommendations, collect information on CBRN treats, and advise the commander on impacts to the mission. (See ATP 3-11.37 for a detailed discussion of CBRN reconnaissance and surveillance.)

PROTECT AGAINST CBRN HAZARDS

B-14. CBRN protection is an integral part of all operations. Protecting the force from CBRN hazards encompasses the execution of physical defenses to negate the effects of CBRN hazards on personnel and material. It includes reacting to an attack, hardening systems and facilities, preventing or reducing individual and collective exposures, applying medical prophylaxis, and avoiding exposure, assuming appropriate mission oriented protective posture levels, and using collective protection. Individual protective items include the protective mask, joint service lightweight integrated suit technology (known as JSLIST), overboots, and gloves.

B-15. The higher-level commander above the ABCT establishes the minimum level of protection. Subordinate units may increase this level as necessary but may not decrease it. The JSLIST may be worn for 45 days with up to six launderings or up to 120 days with no launderings. The JSLIST can be worn for 24 hours once contaminated. The overboots provide 60 days of durability and 24 hours of protection against liquid chemical agents.

B-16. CBRN protection measures are taken to keep CBRN threats and hazards from having an adverse effect on personnel, equipment and facilities. Tasks that enable CBRN protection include the following:

- Employ individual and other CBRN protective equipment.
- Establish CBRN alarm conditions.
- Exercise personal hygiene and FHP programs.
- Utilize shielding or protective cover.

MITIGATE CBRN HAZARDS

B-17. Mitigating a CBRN incident, whether a deliberate attack or accidental release, encompasses a range of tasks to mitigate the effects the hazard has on operations. It includes all efforts to respond to CBRN incidents and reduce hazard effects on forces, populations, facilities, and equipment, including contamination mitigation and CBRN response. *Contamination mitigation* is described as the planning and actions taken to prepare for, respond to, and recover from contamination associated with all chemical, biological, radiological, and nuclear threats and hazards in order to continue military operations (JP 3-11). The two subsets of contamination mitigation are contamination control and decontamination. (See ATP 3-11.32 for a detailed discussion of contamination mitigation tasks.)

B-18. Contamination forces units into protective equipment that degrades performance of individual and collective tasks. Decontamination restores combat power and reduces casualties that may result from exposure, allowing commanders to sustain combat operations. The commander must consider the importance to bring the CBRN staff section forward with the M26 decontamination system and enough water forward when conducting OP decontamination. Use the three principles of decontamination listed below when planning decontamination operations:

- Speed. Decontaminate as soon as possible.
- Need. Decontaminate only what is necessary.
- Priority. Decontaminate the most essential items first; foremost is the skin if contact occurs.
- Limited area. Decontaminate as near the area where the contamination occurred, which is METT-TC dependent.

B-19. When a CBRN incident occurs, the battalion quickly responds to and initially mitigates the effects of contamination. The battalion performs only those actions required to allow continuation of the mission and, within mission constraints, save lives. To recover, the commander decides whether decontamination is required to restore combat power, and if so, what level of decontamination is required. The levels of decontamination are immediate, operational, thorough, and clearance. (See ATP 3-11.32 for a detailed discussion of decontamination levels.)

Glossary

The glossary lists acronyms and terms with Army or joint definitions. Where Army and joint terms differ, (Army) precedes the definition. Terms for which ATP 3-90.5 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

1SG	first sergeant
A&L	administrative and logistics
AA	assembly area
ABCT	Armored brigade combat team
ACM	airspace coordinating measure
ADA	air defense artillery
ADAM	air defense airspace management
ADP	Army doctrine publication
AFATDS	Advanced Field Artillery Tactical Data System
AHS	Army Health System
ALO	air liaison officer
AMD	air and missile defense
AO	area of operations
AOI	area of interest
ASCOPE	areas, structures, capabilities, organizations, people, and events
ATP	Army techniques publication
ATTP	Army tactics, techniques, and procedures
AXP	ambulance exchange point
BAE	brigade aviation element
BAS	battalion aid station
BCT	brigade combat team
BDA	battle damage assessment
BDAR	battle damage assessment and repair
BHL	battle handover line
BMO	battalion maintenance officer
BSA	brigade support area
BSB	brigade support battalion
BSMC	brigade support medical company
C2	command and control
CA	civil affairs
CAB	combined arms battalion

CAS	close air support
CASEVAC	casualty evacuation
CBRN	chemical, biological, radiological, and nuclear
CCIR	commander's critical information requirement
CFL	coordinated fire line
CJCSM	Chairman of the Joint Chiefs of Staff manual
CLS	combat lifesaver
COA	course of action
COMSEC	communications security
COP	common operational picture
CP	command post
CSM	command sergeant major
CTCP	combat trains command post
D3A	decide, detect, deliver, and assess
DA	Department of the Army
DCIPS	Defense Casualty Information Processing System
DD	Department of Defense form
DLIC	detachment left in contact
DOD	Department of Defense
DP	decision point
DSCA	defense support of civil authorities
DST	decision support template
EA	engagement area
EEFI	essential element of friendly information
EMCON	emission control
EMS	electromagnetic spectrum
EOD	explosive ordnance disposal
EP	electromagnetic protection
EW	electromagnetic warfare
FASCAM	family of scatterable mines
FBCB2	Force XXI Battle Command, brigade and below
FEBA	forward edge of the battle area
FHP	force health protection
FIST	fire support team
FLOT	forward line of own troops
FM	field manual/frequency modulation
FMT	field maintenance team
FO	forward observer
FRAGORD	fragmentary order
FSC	forward support company
FSCM	fire support coordination measure

FSO	fire support officer
FTCP	field trains command post
G-1	assistant chief of staff, personnel
GCSS-Army	Global Combat Support System-Army
HHC	headquarters and headquarters company
HN	host nation
HNSF	host-nation security forces
HPT	high-payoff target
HR	human resources
HSS	health service support
HUMINT	human intelligence
HVT	high-value target
IFV	Infantry fighting vehicle
IPB	intelligence preparation of the battlefield
IR	information requirements
JBC-P	Joint Battle Command-Platform
JP	joint publication
JSLIST	joint service lightweight integrated suit technology
JTAC	joint terminal attack controller
LD	line of departure
LNO	liaison officer
LOA	limit of advance
LOC	line of communications
LOGPAC	logistics package
LOGSTAT	logistics status
LOS	line of sight
LRP	logistics release point
LTIOV	latest time information is of value
LZ	landing zone
M/CM/S	mobility, countermobility, and survivability
MBA	main battle area
MC4	medical communications for combat casualty care
MCP	maintenance collection point
MDMP	military decision-making process
MEDEVAC	medical evacuation
METT-TC	mission, enemy, terrain and weather, troops and support available, time available, civil considerations
MI	military intelligence
mm	millimeter
MSR	main supply route
MTC	movement to contact
MTF	medical treatment facility

NAI	named area of interest
NCO	noncommissioned officer
NIPRNET	Nonsecure Internet Protocol Router Network
OAKOC	observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment [military aspects of terrain]
OBSTINTEL	obstacle intelligence
OP	observation post
OPCON	operational control
OPORD	operation order
OPSEC	operations security
PACE	primary, alternate, contingency, and emergency
PASR	personnel accountability and strength reporting
PED	processing, exploitation, and dissemination
PIR	priority intelligence requirement
PMESII-PT	political, military, economic, social, information, infrastructure, physical environment, and time
PLOT-CR	purpose, location, observer, trigger, communications, and resources
PRM	personnel readiness management
PVNTMED	preventive medicine
PZ	pickup zone
QRF	quick reaction force
RED	risk estimate distance
RETRANS	retransmission
RFL	restrictive fire line
ROE	rules of engagement
RPOL	rearward passage of lines
S-1	battalion or brigade personnel staff officer
S-2	battalion or brigade intelligence staff officer
S-3	battalion or brigade operations staff officer
S-4	battalion or brigade logistics staff officer
S-6	battalion or brigade signal staff officer
SBF	support by fire
SEAD	suppression of enemy air defenses
SGLV	Servicemembers' Group Life Insurance Election and Certificate
SINCGARS	single-channel ground and airborne radio system
SITTEMP	situation template
SOF	special operations forces
SOP	standard operating procedure
SOSRA	suppress, obscure, secure, reduce, and assault
SWEAT-MSO	sewage, water, electricity, academics, trash, medical, safety, other considerations
TAC	tactical command post

TACP	tactical air control party
TACSOP	tactical standard operating procedure
TAI	target area of interest
TC	training circular
TCCC	tactical combat casualty care
TF	task force
TLP	troop leading procedures
TM	technical manual
TMIP	theater medical information program
TOA	transfer of authority
TRP	target reference point
TTLODAC	target, trigger, location, observers, delivery, attack guidance, communications
UMT	unit ministry team
U.S.	United States
UAS	unmanned aircraft system
USAF	United States Air Force
USMC	United States Marine Corps
WARNORD	warning order
WCS	weapons control status
WIN-T	Warfighter Information Network-Tactical
XO	executive officer

SECTION II – TERMS

adversary

(DOD) A party acknowledged as potentially hostile to a friendly party and against which the use of force may be envisaged (JP 3-0).

ambush

An attack by fire or other destructive means from concealed positions on a moving or temporarily halted enemy (FM 3-90-1).

area defense

A type of defensive operation that concentrates on denying enemy forces access to designated terrain for a specific time rather than destroying the enemy outright (ADP 3-90).

area of influence

(DOD) 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

(DOD) That area of concern to the commander, including the area of influence, areas adjacent thereto, and extending into enemy territory (JP 3-0).

area of operations

(DOD) 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 type of reconnaissance operation that focuses on obtaining detailed information about the terrain or enemy activity within a prescribed area (ADP 3-90).

area security

A type of security operation conducted to protect friendly forces, lines of communications, installation routes, and activities within a specific area (ADP 3-90).

area support

Method of logistics, medical support, and personnel services in which support relationships are determined by the location of the units requiring support. Sustainment units provide support to units located in or passing through their assigned areas (ATP 4-90).

attack

A type of offensive operation that destroys or defeats enemy forces, seizes and secures terrain, or both (ADP 3-90).

backbrief

A briefing by subordinates to the commander to review how subordinates intend to accomplish their mission (FM 6-0).

battle

A set of related engagements that lasts longer and involves larger forces than an engagement (ADP 3-90).

biological hazard

(DOD) An organism, or substance derived from an organism, that poses a threat to human or animal health (JP 3-11).

breach

Synchronized combined arms activity under the control of the maneuver commander conducted to allow maneuver through an obstacle (ATP 3-90.4).

chemical, biological, radiological, and nuclear defense

(DOD) Measures taken to minimize or negate the vulnerabilities and/or effects of a chemical, biological, radiological, or nuclear hazard or incident (JP 3-11).

chemical, biological, radiological, and nuclear environment

(DOD) An operational environment that includes chemical, biological, radiological, and nuclear threats and hazards and their potential resulting effects (JP 3-11).

clearance of fires

The process by which the supported commander ensures that fires or their effects will have no unintended consequences on friendly units or the scheme of maneuver (FM 3-09).

close air support

(DOD) Air action by aircraft against hostile targets that are in close proximity to friendly forces and that require detailed integration of each Air mission with the fire and movement of those forces (JP 3-09.3).

close area

The portion of the commander's area of operations where the majority of subordinate maneuver forces conduct close combat (ADP 3-0).

collaborative planning

Two or more echelons planning together in real time, sharing information, perceptions, and ideas to develop their respective plans simultaneously (ADP 5-0).

combat power

(Army) The total means of destructive, constructive, and information capabilities that a military unit or formation can apply at a given time (ADP 3-0).

command

(DOD) The authority that a commander in the armed forces lawfully exercises over subordinates by virtue of rank or assignment (JP 1).

command and control

(DOD) The exercise of authority and direction by a properly designated commander over assigned and attached forces in the accomplishment of the mission (JP 1).

command and control system

(Army) The arrangement of people, processes, networks, and command posts that enable commanders to conduct operations (ADP 6-0).

command and control warfighting function

The related tasks and a system that enable commanders to synchronize and converge all elements of combat power (ADP 3-0).

command post

A unit headquarters where the commander and staff perform their activities (FM 6-0).

commander's critical information requirement

(DOD) An information requirement identified by the commander as being critical to facilitating timely decision making (JP 3-0).

commander's intent

(DOD) A clear and concise expression of the purpose of the operation and the desired military end state that supports mission command, provides focus to the staff, and helps subordinate and supporting commanders act to achieve the commander's desired results without further orders, even when the operation does not unfold as planned (JP 3-0).

confirmation brief

A brief subordinate leaders give to the higher commander immediately after the operation order is given to confirm understanding (ADP 5-0).

consolidation

Organizing and strengthening in newly captured position so that it can be used against the enemy (FM 3-90-1).

consolidation area

The portion of the land commander's area of operations that may be designated to facilitate freedom of action, consolidate gains through decisive action, and set conditions to transition the area of operations to follow on forces or other legitimate authorities (ADP 3-0).

contamination mitigation

(DOD) The planning and actions taken to prepare for, respond to, and recover from contamination associated with all chemical, biological, radiological, and nuclear threats and hazards in order to continue military operations (JP 3-11).

control

The regulation of forces and warfighting functions to accomplish the mission in accordance with the commander's intent (ADP 6-0).

control measure

A means of regulating forces or warfighting functions (ADP 6-0).

coordinated fire line

(DOD) A line beyond which conventional surface-to-surface direct fire and indirect fire support means may fire at any time within the boundaries of the establishing headquarters without additional coordination but does not eliminate the responsibility to coordinate the airspace required to conduct the mission (JP 3-09).

cordon and search

A technique of conducting a movement to contact that involves isolating a target area and searching suspect locations within that target area to capture or destroy possible enemy forces and contraband (FM 3-90-1).

counterattack

Attack by part or all of a defending force against an enemy attacking force, for such specific purposes as regaining ground lost, or cutting off or destroying enemy advance units, and with the general objective of denying to the enemy the attainment of the enemy's purpose in attacking. In sustained defensive operations, it is undertaken to restore the battle position and is directed at limited objectives (FM 1-02.1).

counterreconnaissance

A tactical mission task that encompasses all measures taken by a commander to counter enemy reconnaissance and surveillance efforts. Counterreconnaissance is not a distinct mission, but a component of all forms of security operations (FM 3-90-1).

cover

(Army) A type of security operation done independent of the main body to protect them by fighting to gain time while preventing enemy ground observation of and direct fire against the main body (ADP 3-90).

covering force

(Army) A self-contained force capable of operating independently of the main body, unlike a screen or guard force to conduct the cover task (FM 3-90-2).

cyberspace electromagnetic activities

The process of planning, integrating, and synchronizing cyberspace and electronic warfare operations in support of unified land operations (ADP 3-0).

cyberspace operations

(DOD) The employment of cyberspace capabilities where the primary purpose is to achieve objectives in or through cyberspace (JP 3-0).

decisive action

(Army) The continuous, simultaneous execution of offensive, defensive, and stability operations or defense support of civil authorities tasks (ADP 3-0).

decisive operation

The operation that directly accomplishes the mission (ADP 3-0).

deep area

Where the commander sets conditions for future success in close combat (ADP 3-0).

defensive operation

An operation to defeat an enemy attack, gain time, economize forces, and develop conditions favorable for offensive or stability operations (ADP 3-0).

delay

When a force under pressure trades space for time by slowing down the enemy's momentum and inflicting maximum damage on enemy forces without becoming decisively engaged (ADP 3-90).

demonstration

(DOD) In military deception, a show of force similar to a feint without actual contact with the adversary, in an area where a decision is not sought that is made to deceive an adversary (JP 3-13.4).

depth

The extension of operations in time, space, or purpose to achieve definitive results (ADP 3-0).

dynamic targeting

(DOD) Targeting that prosecutes targets identified too late, or not selected for action in time to be included in deliberate targeting (JP 3-60).

echelon support

The method of supporting an organization arrayed within an area of an operation (ATP 4-90).

electromagnetic attack

(DOD) Division of electromagnetic warfare involving the use of electromagnetic energy, directed energy, or antiradiation weapons to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability and is considered a form of fires (JP 3-85).

eletromagnetic masking

(DOD) The controlled radiation of electromagnetic energy on friendly frequencies in a manner to protect the emissions of friendly communications and electronic systems against enemy electromagnetic support measures/signals intelligence without significantly degrading the operation of friendly systems (JP 3-85).

electromagnetic protection

(DOD) Division of electromagnetic warfare involving the actions taken to protect personnel, facilities, and equipment from any effects of friendly or enemy use of the electromagnetic spectrum that degrade, neutralize, or destroy friendly combat capability (JP 3-85).

electromagnetic warfare

(DOD) Military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy (JP 3-85).

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 communications and reinforcement (ADP 3-90).

enemy

A party identified as hostile against which the use of force is authorized (ADP 3-0).

engagement

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

engagement area

An area where the commander intends to contain and destroy an enemy force with the massed effects of all available weapons and supporting systems (ADP 3-90).

envelopment

A form of maneuver in which an attacking force seeks to avoid the principal enemy defenses by seizing objectives behind those defenses that allow the targeted enemy force to be destroyed in their current positions (FM 3-90-1).

essential element of friendly information

A critical aspect of a friendly operation that, if known by a threat would subsequently compromise, lead to failure, or limit success of the operation and therefore should be protected from enemy detection (ADP 6-0).

exploitation

(Army) A type of offensive operation that usually follows a successful attack and is designed to disorganize the enemy in depth (ADP 3-90).

feint

(DOD) In military deception, an offensive action involving contact with the adversary conducted for the purpose of deceiving the adversary as to the location and/or time of the actual main offensive action (JP 3-13.4).

field maintenance

On system maintenance, repair and return to the user including maintenance actions performed by operators (FM 4-30).

final protective line

A selected line of fire where an enemy assault is to be checked by the interlocking fires from all available weapons and obstacles (ATP 3-21.10).

fire support coordination

(DOD) The planning and executing of fire so targets are adequately covered by a suitable weapon or group of weapons (JP 3-09).

fire support coordination measure

(DOD) A measure employed by commanders to facilitate the rapid engagement of targets and simultaneously provide safeguards for friendly forces (JP 3-0).

fires

(DOD) The use of weapons systems or other actions to create a specific lethal or nonlethal effect on a target (JP 3-09).

fires warfighting function

The related tasks and systems that create and converge effects in all domains against the adversary or enemy to enable operations across the range of military operations (ADP 3-0).

fixing force

A force designated to supplement the striking force by preventing the enemy from moving from a specific area for a specific time (ADP 3-90).

flexibility

The employment of a versatile mix of capabilities, formations, and equipment for conducting operations (ADP 3-0).

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 (ADP 3-90).

forward passage of lines

Occurs when a unit passes through another unit's positions while moving toward the enemy (ADP 3-90).

friendly force information requirement

(DOD) Information the commander and staff need to understand the status of friendly force and supporting capabilities (JP 3-0).

guard

A type of security operation done to protect the main body by fighting to gain time while preventing enemy ground observation of and direct fire against the main body (ADP 3-90).

high-payoff target

(DOD) A target whose loss to the enemy will significantly contribute to the success of the friendly course of action (JP 3-60).

high-value target

(DOD) A target the enemy commander requires for the successful completion of the mission (JP 3-60).

hybrid threat

The diverse and dynamic combination of regular forces, irregular forces, terrorists forces, or criminal elements unified to achieve mutually benefitting effects (ADP 3-0).

infiltration

(Army) A form of maneuver in which an attacking force conducts undetected movement through or into an area occupied by enemy forces to occupy a position of advantage in the enemy rear while exposing only small elements to enemy defensive fires (FM 3-90-1).

information collection

An activity that synchronizes and integrates the planning and employment of sensors and assets as well as the processing, exploitation, and dissemination systems in direct support of current and future operations (FM 3-55).

intelligence

(DOD) The product resulting from the collection, processing, integration, evaluation, analysis, and interpretation of available information concerning foreign nations, hostile or potentially hostile forces or elements, or areas of actual or potential operations (JP 2-0).

intelligence preparation of the battlefield

(Army) The systematic process of analyzing the mission variables of enemy, terrain, weather, and civil considerations in an area of interest to determine their effect on operations (ATP 2-01.3).

intelligence warfighting function

The related tasks and systems that facilitate understanding the enemy, terrain, weather, civil considerations, and other significant aspects of the operational environment (ADP 3-0).

joint terminal attack controller

(DOD) A qualified (certified) Service member who, from a forward position, directs the action of combat aircraft engaged in close air support and other offensive air operations (JP 3-09.3).

knowledge management

The process of enabling knowledge flow to enhance shared understanding, learning, and decision making (ADP 6-0).

leadership

The activity of influencing people by providing purpose, direction, and motivation to accomplish the mission and improve the organization (ADP 6-22).

linkup

A meeting of friendly ground forces, which occurs in a variety of circumstances (ADP 3-90).

logistics

(Army) Planning and executing the movement and support of forces. It includes those aspects of military operations that deal with: design and development, acquisition, storage, movement, distribution, maintenance, evacuation and disposition of materiel; acquisition or construction, maintenance, operation, and disposition of facilities; and acquisition or furnishing of services (ADP 4-0).

logistics package

A grouping of multiple classes of supply and supply vehicles under the control of a single convoy commander (FM 3-90-1).

main command post

A facility containing the majority of the staff designed to control current operations, conduct detailed analysis, and plan future operations (FM 6-0).

main effort

A designated subordinate unit whose mission at a given point in time is most critical to overall mission success (ADP 3-0).

maneuver

(Army) Movement in conjunction with fires (ADP 3-0).

march serial

A major subdivision of a march column that is organized under one commander who plans, regulates, and controls the serial (FM 3-90-2).

march unit

A subdivision of a march serial. It moves and halts under the control of a single commander who uses voice and visual signals (FM 3-90-2).

meeting engagement

A combat action that occurs when a moving force, incompletely deployed for battle, engages an enemy at an unexpected time and place (ADP 3-90).

military decision-making process

An iterative planning methodology to understand the situation and mission, develop a course of action, and produce an operation plan or order (ADP 5-0).

mobile defense

A type of defensive operation that concentrates on the destruction or defeat of the enemy through a decisive attack by a striking force (ADP 3-90).

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 (ADP 3-0).

movement to contact

(Army) A type of offensive operation designed to develop the situation and to establish or regain contact (ADP 3-90).

net control station

A communications station designated to control traffic and enforce circuit discipline within a given net (ATP 6-02.53).

nonpersistent agent

(DOD) A chemical agent that when released dissipates and/or loses its ability to cause casualties after 10 to 15 minutes (JP 3-11).

offensive operation

An operation to defeat or destroy enemy forces and gain control of terrain, resources, and population centers (ADP 3-0).

operation

(DOD) A sequence of tactical actions with a common purpose and unifying theme (JP 1).

operational environment

(DOD) A composite of the conditions, circumstances, and influences that affect the employment of capabilities and bear on the decisions of the commander (JP 3-0).

operational framework

A cognitive tool used to assist commanders and staffs in clearly visualizing and describing the application of combat power in time, space, purpose, and resources in the concept of operations (ADP 1-01).

operations process

The major command and control activities performed during operations: planning, preparing, executing, and continuously assessing the operation (ADP 5-0).

parallel planning

Two or more echelons planning for the same operations nearly simultaneously facilitated by the use of warning orders by the higher headquarters (ADP 5-0).

passage of lines

(DOD) 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 (JP 3-18).

penetration

A form of maneuver in which an attacking force seeks to rupture enemy defenses on a narrow front to disrupt the defensive system (FM 3-90-1).

persistent agent

(DOD) A chemical agent that, when released, remains able to cause casualties for more than 24 hours to several days or weeks (JP 3-11).

personnel services

Sustainment functions that man and fund the force, maintain Soldier and Family readiness, promote the moral and ethical values of the nation, and enable the fighting qualities of the Army (ADP 4-0).

planning

The art and science of understanding a situation, envisioning a desired future, and determining effective ways to bring that future about (ADP 5-0).

preparation

Those activities performed by units and Soldiers to improve their ability to execute an operation (ADP 5-0).

priority intelligence requirement

(DOD) An intelligence requirement that the commander and staff need to understand the threat or other aspects of the operational environment (JP 2-01).

procedures

(DOD) Standard, detailed steps that prescribe how to perform specific tasks (CJCSM 5120.01B).

protection warfighting function

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

pursuit

A type of offensive operation designed to catch or cut off a hostile force attempting to escape, with the aim of destroying it (ADP 3-90).

radio silence

The status on a radio network in which all stations are directed to continuously monitor without transmitting, except under established criteria (ATP 6-02.53).

raid

(DOD) An operation to temporarily seize an area to secure information, confuse an enemy, capture personnel or equipment, or to destroy a capability culminating with a planned withdrawal (JP 3-0).

rearward passage of lines

Occurs when a unit passes through another unit's positions while moving away from the enemy (ADP 3-90).

reconnaissance in force

A type of reconnaissance operation designed to discover or test the enemy's strength, dispositions, and reactions or to obtain other information (ADP 3-90).

rehearsal

A session in which the commander and staff or unit practices expected actions to improve performance during execution (ADP 5-0).

relevant information

All information of importance to the commander and staff in the exercise of command and control (ADP 6-0).

reorganization

All measures taken by the commander to maintain unit combat effectiveness or return it to a specified level of combat capability (FM 3-90-1).

restrictive fire line

(DOD) A specific boundary established between converging, friendly surface forces that prohibits fires or their effects from crossing (JP 3-09).

retrograde

(Army) A type of defensive operation that involves organized movement away from the enemy (ADP 3-90).

route reconnaissance

A type of reconnaissance operation to obtain detailed information of a specified route and all terrain which the enemy could influence movement along that route (ADP 3-90).

rules of engagement

(DOD) 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 3-84).

running estimate

The continuous assessment of the current situation used to determine if the current operation is proceeding according to the commander's intent and if planned future operations are supportable (ADP 5-0).

screen

A type of security operation that primarily provides early warning to the protected force (ADP 3-90).

search and attack

A technique for conducting a movement to contact that shares many of the characteristics of an area security mission (FM 3-90-1).

security cooperation

(DOD) All Department of Defense interactions with foreign security establishments to build security relationships that promote specific United States security interests, develop allied and partner nation military and security capabilities for self-defense and multinational operations, and provide United States forces with peacetime and contingency access to allied and partner nations (JP 3-20).

sequential relief in place

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 (ADP 3-90).

shaping operation

An operation at any echelon that creates and preserves conditions for success of the decisive operation through effects on the enemy, other actors, and the terrain (ADP 3-0).

simultaneity

The execution of related and mutually supporting tasks at the same time across multiple locations and domains (ADP 3-0).

simultaneous relief in place

Occurs when all elements are relieved at the same time (ADP 3-90).

single envelopment

A form of maneuver that results from maneuvering around one assailable flank of a designated enemy force (FM 3-90-1).

Soldier and leader engagements

Interpersonal interactions by Soldiers and leaders with audiences in an area of operations (FM 3-13).

special reconnaissance

(DOD) 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).

stability operation

An operation conducted outside the United States in coordination with other instruments of national power to establish or maintain a secure environment and provide essential governmental services, emergency infrastructure reconstruction, and humanitarian relief (ADP 3-0).

staggered relief in place

Occurs when the commander relieves each element in a sequence determined by the tactical situation, not its geographic orientation (ADP 3-90).

striking force

A dedicated counterattack force in a mobile defense constituted with the bulk of available combat power (ADP 3-90).

support area

The portion of the commander's area of operations that is designated to facilitate the positioning, employment, and protection of base sustainment assets required to sustain, enable, and control operations (ADP 3-0).

supporting effort

A designated subordinate unit with a mission that supports the success of the main effort (ADP 3-0).

sustainment

(Army) The provision of logistics, financial management, personnel services, and health service support necessary to maintain operations until successful mission completion (ADP 4-0).

sustaining operation

An operation at any echelon that enables the decisive operation or shaping operations by generating and maintaining combat power (ADP 3-0).

sustainment warfighting function

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

synchronization

(DOD) The arrangement of military actions in time, space, and purpose to produce maximum relative combat power at a decisive place and time (JP 2-0).

tactical command post

A facility containing a tailored portion of a unit headquarters designed to control portions of an operation for limited time (FM 6-0).

tactical road march

A rapid movement used to relocate units within an area of operations to prepare for combat operations (ADP 3-90).

target

(DOD) An entity or object that performs a function for the threat considered for possible engagement or other action (JP 3-60).

target acquisition

(DOD) The detection, identification, and location of a target in sufficient detail to permit the effective employment of capabilities that create the required effects (JP 3-60).

targeting

(DOD) The process of selecting and prioritizing targets and matching the appropriate response to them, considering operational requirements and capabilities (JP 3-0).

tempo

The relative speed and rhythm of military operations over time with respect to the enemy (ADP 3-0).

threat

Any combination of actors, entities, or forces that have the capability and intent to harm United States forces, United States national interests, or the homeland (ADP 3-0).

turning movement

(Army) A form of maneuver in which the attacking force seeks to avoid the enemy's principle defensive positions by seizing objectives behind the enemy's current positions thereby causing the enemy force to move out of their current positions or divert major forces to meet the threat (FM 3-90-1).

unified action

(DOD) The synchronization, coordination, and/or integration of the activities of governmental and nongovernmental entities with military operations to achieve unity of effort (JP 1).

unified land operations

The simultaneous execution of offense, defense, stability, and defense support of civil authorities across multiple domains to shape operational environments, prevent conflict, prevail in large-scale ground combat, and consolidate gains as part of unified action (ADP 3-0).

unity of effort

(DOD) Coordination, and cooperation toward common objectives, even if the participants are not necessarily part of the same command or organization, which is the product of successful unified action (JP 1).

warfighting function

A group of tasks and systems united by a common purpose that commanders use to accomplish missions and training objectives (ADP 3-0).

zone reconnaissance

A type of reconnaissance operation that involves a directed effort to obtain detailed information on all routes, obstacles, terrain, and enemy forces within a zone defined by boundaries. (ADP 3-90).

References

URLs accessed on 7 July 2021.

REQUIRED PUBLICATIONS

These documents must be available to intended users of this publication.

DOD Dictionary of Military and Associated Terms. January 2021. Website: https://www.jcs.mil/Doctrine.

FM 1-02.1. *Operational Terms.* 9 March 2021.

FM 1-02.2. *Military Symbols.*10 November 2020.

RELATED PUBLICATIONS

These documents contain relevant supplemental information.

JOINT PUBLICATIONS

Most joint publications are available online: https://www.jcs.mil/doctrine. CJCS manuals are available online at: http://www.jcs.mil/Library/CJCS-Manuals/.

CJCSM 5120.01B. *Joint Doctrine Development Process.* 6 November 2020.

JP 1. *Doctrine for the Armed Forces of the United States.* 25 March 2013.

JP 2-0. *Joint Intelligence.* 22 October 2013.

JP 2-01. *Joint and National Intelligence Support to Military Operations.* 5 July 2017.

JP 3-0. *Joint Operations.* 17 January 2017.

JP 3-01. *Countering Air and Missile Threats.* 21 April 2017.

JP 3-05. *Joint Doctrine for Special Operations.* 22 September 2020.

JP 3-09. *Joint Fire Support.* 10 April 2019.

JP 3-09.3. *Close Air Support.* 10 June 2019.

JP 3-11. *Operations in Chemical, Biological, Radiological, and Nuclear Environments.* 29 October 2018.

JP 3-13.4. *Military Deception.* 14 February 2017.

JP 3-18. *Joint Forcible Entry Operations.* 27 June 2018.

JP 3-20. *Security Cooperation.* 23 May 2017.

JP 3-28. *Defense Support of Civil Authorities.* 29 October 2018.

JP 3-57. *Civil-Military Operations.* 9 July 2018.

JP 3-60. *Joint Targeting.* 28 September 2018.

JP 3-84. *Legal Support.* 2 August 2016.

JP 3-85. *Joint Electromagnetic Spectrum Operations.* 22 May 2020.

ARMY PUBLICATIONS

Most Army publications are available online: https://armypubs.army.mil.

ADP 1-01. *Doctrine Primer.* 31 July 2019.

ADP 2-0. *Intelligence.* 31 July 2019.

ADP 3-0. *Operations.* 31 July 2019.

ADP 3-07. *Stability.* 31 July 2019.

ADP 3-19. *Fires.* 31 July 2019.

ADP 3-28. *Defense Support of Civil Authorities.* 31 July 2019.

ADP 3-37. *Protection.* 31 July 2019.

ADP 3-90. *Offense and Defense.* 31 July 2019.

ADP 4-0. *Sustainment.* 31 July 2019.

ADP 5-0. *The Operations Process.* 31 July 2019.

ADP 6-0. *Mission Command: Command and Control of Army Forces.* 31 July 2019.

ADP 6-22. *Army Leadership and the Profession.* 31 July 2019.

AR 15-6. *Procedures for Administrative Investigations and Boards of Officers.* 1 April 2016.

AR 40-5. *Army Public Health Program.* 12 May 2020.

AR 40-35. *Preventive Dentistry and Dental Readiness.* 21 July 2016.

AR 40-66. *Medical Record Administration and Health Care Documentation.* 17 June 2008.

AR 350-1. *Army Training and Leader Development.* 10 December 2017.

AR 360-1. *The Army Public Affairs Program.* 8 October 2020.

AR 385-10. *The Army Safety Program.* 24 February 2017.

AR 750-1. *Army Materiel Maintenance Policy.* 28 October 2019.

ATP 1-0.1. *G-1/AG and S-1 Operations.* 23 March 2015.

ATP 1-06.2. *The Commanders' Emergency Response Program.* 22 May 2017.

ATP 2-01. *Plan Requirements and Assess Collection.* 19 August 2014.

ATP 2-01.3. *Intelligence Preparation of the Battlefield.* 1 March 2019.

ATP 3-01.18. *Stinger Team Techniques.* 23 August 2017.

ATP 3-01.64. *Avenger Battalion and Battery Techniques.* 10 March 2016.

ATP 3-04.1. *Aviation Tactical Employment.* 7 May 2020.

ATP 3-07.5. *Stability Techniques.* 31 August 2012.

ATP 3-07.10/MCRP 3-03D.1 [MCRP3-33.8A]/NTTP 3-07.5/AFTTP 3-2.76. *Advising Multi-Service Tactics, Techniques, and Procedures for Advising Foreign Security Forces.* 13 November 2017.

ATP 3-09.24. *Techniques for the Fire Brigade.* 21 November 2012.

ATP 3-09.30. *Observed Fires.* 28 September 2017.

ATP 3-09.32/MCRP 3-31.6/NTTP 3-09.2/AFTTP 3-2.6. *JFIRE*, *Multi-Service Tactics, Techniques, and Procedures for Joint Application of Firepower.* 18 October 2019.

ATP 3-09.42. *Fire Support for the Brigade Combat Team.* 1 March 2016.

ATP 3-11.32/MCWP 10-10E.8/NTTP 3-11.37/AFTTP 3-2.46. *Multi-Service Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Passive Defense.* 13 May 2016.

ATP 3-11.37/MCRP 10-10E.7/NTTP 3-11.29/AFTTP 3-2.44. *Multi-Service Tactics, Techniques, and Procedures for Chemical, Biological, Radiological, and Nuclear Reconnaissance and Surveillance.* 31 March 2021.

ATP 3-12.3. *Electronic Warfare Techniques.* 16 July 2019.

ATP 3-13.1. *The Conduct of Information Operations.* 4 October 2018.

ATP 3-13.3. *Army Operations Security for Division and Below.* 16 July 2019.

ATP 3-14.3. *Techniques for Army Space Forces.* 15 February 2018.

ATP 3-20.15/MCRP 3-10B.1. *Tank Platoon.* 3 July 2019.

ATP 3-20.98. *Scout Platoon.* 4 December 2019.

ATP 3-21.8. *Infantry Platoon and Squad.* 12 April 2016.

ATP 3-21.10. *Infantry Rifle Company.* 14 May 2018.

ATP 3-34.80. *Geospatial Engineering.* 22 February 2017.

ATP 3-52.1/MCRP 3-20F.4 [MCWP 3-25.13]/NTTP 3-56.4/AFTTP 3-2.78. *Airspace Control, Multi-Service Tactics, Techniques, and Procedures for Airspace Control.* 14 February 2019.

ATP 3-57.70. *Civil-Military Operations Center*. 5 May 2014.

ATP 3-60. *Targeting.* 7 May 2015.

ATP 3-90.1. *Armor and Mechanized Infantry Company Team.* 27 January 2016.

ATP 3-90.4/MCWP 3-17.8. *Combined Arms Mobility.* 8 March 2016.

ATP 3-90.90. *Army Tactical Standard Operating Procedures.* 1 November 2011.

ATP 4-02.1. *Army Medical Logistics.* 29 October 2015.

ATP 4-02.2. *Medical Evacuation.* 12 July 2019.

ATP 4-02.3. *Army Health System Support to Maneuver Forces.* 9 June 2014.

ATP 4-02.8. *Force Health Protection.* 9 March 2016.

ATP 4-02.46. *Army Health System Support to Detainee Operations.* 12 April 2013.

ATP 4-43. *Petroleum Supply Operations.* 6 August 2015.

ATP 4-48. *Aerial Delivery.* 21 December 2016.

ATP 4-90. *Brigade Support Battalion.* 18 June 2020.

ATP 5-0.1. *Army Design Methodology.* 1 July 2015.

ATP 5-0.2-2. *Staff Reference Guide Volume II: Appendix O Distribution D Resources.* 7 December 2020.

ATP 5-19. *Risk Management.* 14 April 2014.

ATP 6-0.5. *Command Post Organization and Operations.* 1 March 2017.

ATP 6-01.1. *Techniques for Effective Knowledge Management.* 6 March 2015.

ATP 6-02.45. *Techniques for Tactical Signal Support to Theater Operations.* 7 November 2019.

ATP 6-02.53. *Techniques for Tactical Radio Operations.* 13 February 2020.

ATP 6-02.54. *Techniques for Satellite Communications.* 5 November 2020.

ATP 6-02.60. *Tactical Networking Techniques for Corps and Below.* 9 August 2019.

ATP 6-22.5. *A Leader's Guide to Soldier Health and Fitness.* 10 February 2016.

ATTP 3-06.11. *Combined Arms Operations in Urban Terrain.* 10 June 2011.

FM 1-0. *Human Resources Support.* 1 April 2014.

FM 1-04. *Legal Support to Operations.* 8 June 2020.

FM 1-05. *Religious Support.* 21 January 2019.

FM 1-06. *Financial Management Operations.* 15 April 2014.

FM 2-0. *Intelligence.* 6 July 2018.

FM 3-01. *U.S. Army Air and Missile Defense Operations.* 22 December 2020.

FM 3-07. *Stability.* 2 June 2014.

FM 3-09. *Fire Support and Field Artillery Operations.* 30 April 2020.

FM 3-11. *Chemical, Biological, Radiological, and Nuclear Operations.* 23 May 2019.

FM 3-13. *Information Operations.* 6 December 2016.

FM 3-13.4. *Army Support to Military Deception.* 26 February 2019.

FM 3-14. *Army Space Operations.* 30 October 2019.

FM 3-22. *Army Support to Security Cooperation.* 22 January 2013.

FM 3-52. *Airspace Control.* 20 October 2016.

FM 3-55. *Information Collection.* 3 May 2013.

FM 3-57. *Civil Affairs Operations*. 17 April 2019.

FM 3-63. *Detainee Operations.* 2 January 2020.

FM 3-90-1. *Offense and Defense Volume 1.* 22 March 2013.

FM 3-90-2. *Reconnaissance, Security, and Tactical Enabling Tasks Volume 2.* 22 March 2013.

FM 3-96. *Brigade Combat Team.* 19 January 2021.

FM 3-98. *Reconnaissance and Security Operations.* 1 July 2015.

FM 3-99. *Airborne and Air Assault Operations.* 6 March 2015.

FM 4-0. *Sustainment Operations.* 31 July 2019.

FM 4-02. *Army Health System.* 17 November 2020.

FM 4-30. *Ordnance Operations.* 1 April 2014.

FM 6-0. *Commander and Staff Organization and Operations.* 5 May 2014.

FM 6-27/MCTP 11-10C. *The Commander's Handbook on the Law of Land Warfare.* 7 August 2019.

TC 3-20.31-4. *Direct Fire Engagement Process (DIDEA).* 23 July 2015.

TC 3-22.10. *Sniper.* 7 December 2017.

TM 3-11.91/MCRP 10-10E.4/NTRP 3-11.32/AFTTP 3-2.55. *Chemical, Biological, Radiological, and Nuclear Threats and Hazards.* 13 December 2017. https://www.logsa.army.mil (access requires registration).

UNITED STATES LAWS

Most acts and public laws are available at http://uscode.house.gov.

32 USC. *National Guard.*

RECOMMENDED READING

ATP 1-05.01. *Religious Support and the Operations Process*. 31 July 2018.

ATP 1-05.02. *Religious Support to Funerals and Memorial Events*. 27 November 2018.

ATP 1-05.03. *Religious Support and External Advisement*. 31 January 2019.

ATP 1-05.04. *Religious Support and Internal Advisement*. 23 March 2017.

ATP 1-05.05. *Religious Support and Casualty Care*. 28 August 2019.

PRESCRIBED FORMS

This section contains no entries.

REFERENCED FORMS

Unless otherwise indicated, DA forms are available on the Army Publishing Directorate (APD) website at https://armypubs.army.mil. DD forms are available on the Executive Services Directorate website at https://www.esd.whs.mil/Directives/forms.

DA Form 1156. *Casualty Feeder Card.*

DA Form 1594. *Daily Staff Journal or Duty Officer's Log.*

DA Form 2028. *Recommended Changes to Publications and Blank Forms.*

DA Form 4656. *Scheduling Worksheet.*

DA Form 5988-E. *Equipment Maintenance and Inspection Worksheet.* (Available through the unit Level Logistics System.)

DD Form 93. *Record of Emergency Data.*

DD Form 1380. *Tactical Combat Casualty Care (TCCC) Card.* (Available through normal publications supply channels.)

DD Form 2977. *Deliberate Risk Assessment Worksheet.*

SGLV 8286. *Servicemembers' Group Life Insurance Election and Certificate.* Available online at https://benefits.va.gov/INSURANCE/resources-forms.asp.

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