THE STRYKER BRIGADE COMBAT TEAM INFANTRY BATTALION

APRIL 2003

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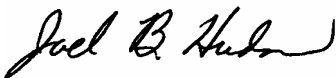
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CONTENTS

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PREFACE

*The Stryker brigade combat team (SBCT) infantry battalion is designed to be a **full-spectrum, early-entry combat force**. It has utility in all operational environments against all projected future threats. As part of the SBCT, the infantry battalion possesses significant utility for divisions and corps engaged in a major theater war; however, the SBCT is optimized to meet the challenges of smaller-scale contingencies.*

Given current trends, domestic factors, and the worldwide potential for various forms of conflict, the United States can expect to remain heavily engaged on a global basis. The United States will likely respond to serious threats to its national interests from failed and failing states, from transnational entities, and potentially major military competitors as well as from regional or state-centered threats. The proliferation of information and weapons technologies, coupled with asymmetric application of conventional and nonmilitary capabilities, may enable even regional adversaries to oppose United States interests and military forces effectively. This manual provides the battalion commander and staff with the doctrinal base to ensure the SBCT infantry battalion's versatility across the full spectrum of potential operations.

The Stryker brigade combat team infantry battalion optimizes organizational effectiveness while balancing lethality, mobility, and survivability against requirements for rapid strategic deployability. The infantry battalion includes a reconnaissance platoon, imbedded human intelligence (HUMINT), and three robust combined-arms infantry companies. These organic elements ensure the battalion's versatility across the full range of potential requirements, from providing the security necessary to promote stability and conduct operations during peacetime military engagements to conducting offensive and defensive operations in a major-theater war against localized threats.

Although this manual does not implement any international agreements, the material presented herein is in accordance with related international agreements.

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Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

CHAPTER 1
OVERVIEW OF THE SBCT INFANTRY BATTALION

The Stryker brigade combat team (SBCT) infantry battalion's primary mission is to close with and destroy the enemy during full-spectrum operations through close, violent combat. The SBCT infantry battalion is capable of accomplishing all missions historically identified with the infantry and is organized and equipped to conduct operations in restricted terrain, severely restricted terrain, and urban terrain. The battalion, as part of the SBCT, deploys rapidly, executes early-entry operations, and conducts effective combat operations immediately upon arrival to assist in the prevention, containment, stabilization, or resolution of a conflict

Section I. MISSION AND KEY OPERATIONAL CAPABILITIES

The SBCT infantry battalion can deploy rapidly and can be sustained by an austere support structure. The battalion conducts operations against conventional and unconventional enemy forces in all types of terrain and climate conditions. The battalion can perform its mission throughout the entire spectrum of military operations. Additionally, the battalion has the following key operational capabilities.

1-1. MISSION

The SBCT infantry battalion's mission is to close with the enemy by fire and to maneuver to destroy or capture him or to repel his assault by fire, close combat, and counterattack.

1-2. MOBILITY

The battalion has a high level of mobility at all three levels of operations. Strategically, the battalion is organized, equipped, and configured to meet the SBCT's 96-hour deployment standard. Operationally, the battalion is capable of intra-theater deployment by ground, by sea, or by C130 air transport. At the tactical level, superior mobility is critical to the success of the force. The battalion has a mobility capability equal to that of a mechanized formation when task-organized within a division for high-end operations in unrestricted terrain across the battlefield. Its unique mobility capabilities allow the battalion to maintain effectiveness in complex and urban terrain that would limit mechanized and armored forces while also maintaining rapid vehicular mobility that is unavailable to light forces. The organic vehicle systems provide tactical mobility that enables the battalion to strike the enemy in depth, reposition its reserve rapidly, secure lines of communications, and conduct noncontiguous platoon and company fights.

1-3. DISMOUNTED ASSAULT AND THE CLOSE FIGHT

The battalion achieves decisive action using combined arms at the company level. It focuses on dismounted assault supported by direct fires from the mobile gun system (MGS) and, when possible, the Stryker. The combined effects of mortars, integrated joint assets, artillery, and mobility support based on robust command, control, communications, computers, intelligence, surveillance and reconnaissance capabilities down to company level allow for highly responsive fires and effects to support decisive

action. The battalion's ultimate success depends on its ability to integrate and synchronize combined-arms effects to support the dismounted assault in the close fight.

1-4.   ENHANCED INFORMATION SUPERIORITY

The SBCT has the capability to gain information superiority to achieve surprise or to anticipate the actions of the enemy force and engage it effectively. The SBCT employs an integrated suite of intelligence, reconnaissance, and surveillance (ISR) capabilities to develop and disseminate a common operational picture (COP) throughout the force, facilitating situational understanding (SU) through the application of the commander's judgment and experience.

   a. The cavalry squadron (reconnaissance, surveillance, and target acquisition [RSTA]) is the primary force for providing combat information to build the knowledge base necessary to achieve a COP, including an in-depth understanding of the local and regional <u>nonmilitary </u>factors that typically influence the outcome of stability operations, particularly against an asymmetric enemy. ISR analytical and management assets at SBCT level integrate information and intelligence from all sources, including human collectors (human intelligence [HUMINT]), organic unmanned aerial vehicles (UAVs), and resources at higher echelons.

   b. Situational understanding and information superiority enable the battalion to avoid surprise, to develop timely decisions, to control the time and place to engage in combat, to conduct maneuver, to shape the battlespace with fires and effects, and to achieve decisive outcomes. The battalion is equipped with the maneuver control system-Light (MCS-Light), All Source Analysis System-Light (ASAS-Light) and Force XXI battle command, brigade and below (FBCB2) which facilitate effective information management and achieve the quality of information sharing necessary for multiechelon collaborative planning and the execution-focused command and control.

1-5.   LETHALITY

The SBCT infantry battalion is a lethal force built around the infantryman. The battalion possesses a robust array of direct and indirect fire systems to shape the battlespace and achieve decision in the close fight inherent within restricted and severely restricted terrain. Direct fire support from the MGS focuses on defeating hardened and fortified positions. Battalion- and company-level organic mortars facilitate operations. Mortars enhance indirect fire responsiveness with volume and the high angle fire essential to effective engagement in urban terrain. The battalion possesses limited antitank capability and normally receives antitank augmentation, if required, to deal with large numbers of enemy mechanized forces in unrestricted terrain. The requirement to reduce collateral damage and noncombatant casualties requires precision fires and well-trained soldiers who understand the direct fire plan and who remain aware of the situation. Similarly, battalion capabilities to create effects must be part of the overall effects concept in synergy with the employment of lethal systems and munitions. The battalion may be reinforced with antitank (tube-launched, optically-tracked, wire-guided [TOW] IIB missile) assets from the SBCT's antitank company or other assets augmenting the SBCT. The battalion can also expect supporting fires from cannon and rocket artillery units supporting the SBCT. The high mobility of these systems sharply increases their

effectiveness in supporting the infantryman in the close fight by generating combat power well beyond that of US light forces of comparable size.

1-6. FORCE PROTECTION AND SURVIVABILITY

The SBCT infantry battalion's relatively light armor and limited survivability assets preclude it from relying on traditional means of enhancing protection and survivability. The battalion conducts force protection through the appropriate use of terrain for protection. The tactical mobility inherent in this organization allows elements to displace quickly for force protection. Also, the information dominance capability of this organization increases force protection and survivability by reducing the likelihood of surprise against the battalion. In environments where these measures are not adequate, the battalion must be augmented appropriately or given missions appropriate to its force protection capability.

1-7. FORCE EFFECTIVENESS

The battalion achieves force effectiveness by exploiting the abilities of its skilled soldiers and capable leaders. In addition to the human dimensions, the rapid tactical mobility afforded by the common vehicle platforms and the increase in situational understanding provided by the technological advances in information systems (INFOSYS) at the SBCT allow the battalion to maintain force effectiveness in smaller-scale contingencies (SSCs). When deployed in support of a major theater war (MTW) or peacetime military engagement (PME), the augmentation provided by divisional or corps units allows the SBCT to maintain force effectiveness.

1-8. UNIFIED ACTION

The battalion normally operates under the command of the SBCT but may augment a light, mechanized, or armored brigade. The SSC environment may require it to maintain direct links with multinational forces, US interagency organizations operating in the theater, and other international, local, nongovernmental, and private organizations involved in the crisis, conflict, or instability. In many situations, the battalion benefits from exploiting the knowledge and capabilities residing within these organizations. Effective interaction is especially important at the lower end of the SSC scale in an environment where the adversary is primarily employing asymmetric capabilities rather than military power to achieve its ends. In some contingencies, the battalion headquarters (HQ) or battalion elements actively participate in civil-military activities and serve within civil-military organizations.

1-9. FULL-SPECTRUM FLEXIBILITY AND AUGMENTATION

When the SBCT participates in full-spectrum operations, it does so as a subordinate element with a division or Army forces (ARFOR). Adjustments to task organization, including augmentation, are required. Likely augmentation packages for the SBCT include lift and or attack aviation, armor, cannon or rocket artillery, air defense, military police, civil affairs, psychological operations, combat and construction engineers, and additional INFOSYS assets with requisite combat service support (CSS) for each system. Depending on its mission and the nature of its assigned area of operations, the battalion

can expect to receive additional combat, combat support, and CSS from the forces augmenting the SBCT.

Section II. ORGANIZATION AND CAPABILITIES

The SBCT infantry battalion is designed for employment as an early-entry force in full-spectrum operations (MTWs, SSCs, and PMEs). Its operational environment is primarily restricted, severely restricted, and urban terrain, opposed by an unconventional enemy. Other potential environmental features include a weak transportation and logistical infrastructure, an uncertain political climate, and coalition involvement. The battalion is able to deploy as part of the SBCT and arrive in theater within 96 hours of embarkation and to begin operations immediately upon arrival at the airport of debarkation (APOD). At the tactical level, overmatching SU, lethality, and mobility are critical to the success of the force.

1-10. BATTLEFIELD ORGANIZATION

Commanders visualize their battlespace and determine how to arrange their forces. Battlefield organization is the arrangement of subordinate forces according to purpose, time, and space to accomplish a mission.

a. The purpose-based framework centers on decisive, shaping, and sustaining operations. Purpose unifies all elements of the battlefield organization by providing the common focus for all actions. However, forces act in time and space to accomplish a purpose. A commander may choose to use the "decisive point," "main effort," "supporting efforts" method to articulate his organization of forces if this better facilitates the commander's ability to visualize, describe, and direct actions.

b. As a full-spectrum combat force, the SBCT infantry battalion organization design includes embedded unit-based capabilities tailored specifically to the unique requirements of the battalion's mission set. The battalion organization allows the commander to scale his force to accept like-type additional infantry or intelligence organizations. The commander can also accept augmentation of units or elements that are not organic to the battalion structure, such as armor or air defense. This organizational flexibility allows the battalion to function in its primary role as a major participant in combat operations as part of a division or corps structure, or to serve as a "guarantor combat force" in a stability or support operation.

1-11. CAPABILITIES AND LIMITATIONS

The SBCT infantry battalion is capable of executing all military operations in varying terrain throughout the full-spectrum of combat operations. (Table 1-1). (Refer also to Appendix A, Integration of Special Operations, Mechanized, and Light Forces.)

LIGHT INFANTRY BATTALION	HEAVY INFANTRY BATTALION	SBCT INFANTRY BATTALION
CAPABILITIES		
Conduct offensive and defensive operations in all types of environments.	Conduct offensive, defensive, retrograde, or other operations over assigned areas in all environments.	Conduct offensive and defensive operations in all environments across the spectrum of conflict.
Screen and guard friendly units.	Conduct security operations (screen, guard, and cover) for a larger force.	Screen and guard friendly units.
	Exploit the success and pursue a defeated enemy as part of a larger formation.	Exploit the success and pursue a defeated enemy as part of a larger formation.
	Accomplish rapid movement and limited penetrations.	Tactically mobile.
Seize, secure, occupy, and retain terrain.	Seize, secure, occupy, and retain terrain.	Seize, secure, occupy, and retain terrain.
Destroy, neutralize, suppress, interdict, disrupt, block, canalize, and fix enemy forces.	Destroy, neutralize, suppress, interdict, disrupt, block, canalize, and fix enemy forces.	Destroy, neutralize, suppress, interdict, disrupt, block, canalize, and fix enemy forces.
Breach enemy obstacles.	Breach enemy obstacles.	Breach enemy obstacles.
Feint and demonstrate to deceive the enemy.	Feint and demonstrate to deceive the enemy.	Feint and demonstrate to deceive the enemy.
Reconnoiter, deny, bypass, clear, contain, and isolate (terrain or enemy).	Reconnoiter, deny, bypass, clear, contain, and isolate (terrain or enemy).	Reconnoiter, deny, bypass, clear, contain, and isolate (terrain or enemy).
Operate in conjunction with SBCT/heavy, coalition, or special operating forces.	Operate in conjunction with light/SBCT, coalition, or special operating forces.	Operate in conjunction with light/heavy, coalition, or special operating forces.
Conduct small-unit operations.		Conduct small-scale operations in all types of environments.
Conduct amphibious operations.		Conduct amphibious operations.
Conduct air assault and airborne operations.		Conduct air assault operations.
Conduct stability operations and support operations.	Conduct stability operations and support operations.	Conduct stability operations and support operations.
High strategic mobility.	High tactical mobility.	Strategic mobility retains rapid deployment.
		Conduct sustained combat operations for 72 hours in all environments.
LIMITATIONS		
Especially vulnerable to enemy fires, NBC, and enemy air.		Especially vulnerable to enemy direct fires, NBC, and enemy air.
Austere CSS structure may require external support for independent operations.		Austere CSS structure may require external support for full-spectrum operations.
Lacks the firepower, mobility, and protection of a mechanized force.	Mobility and firepower are restricted by urban areas, dense jungles and forests, very steep and rugged terrain, and significant water obstacles.	Dense jungles and forests, very steep and rugged terrain, and significant water obstacles.
Foot mobile; organic vehicles move either soldiers or supplies.	Strategic mobility is limited by substantial quantities of heavy equipment.	
Low tactical mobility.		Reduced C2 during dismounted operations.
Consumption of supply items is high, especially Classes III and V	Consumption of supply items is high, especially Classes III, V, and IX.	Consumption of supply items is high, especially Classes III, V, and IX.

Table 1-1. Capabilities and limitations.

1-12. ORGANIZATION AND FUNCTIONS

The SBCT infantry battalion can function autonomously or as part of any combat brigade. It consists of three rifle companies and a headquarters & headquarters company (HHC) (Figure 1-1). The HHC consists of two elements: the headquarters section, consisting of the battalion command section and the principal and special staff, and the HQ company, consisting of the HHC headquarters and the battalion's reconnaissance, mortar, and medical platoons and sniper squad.
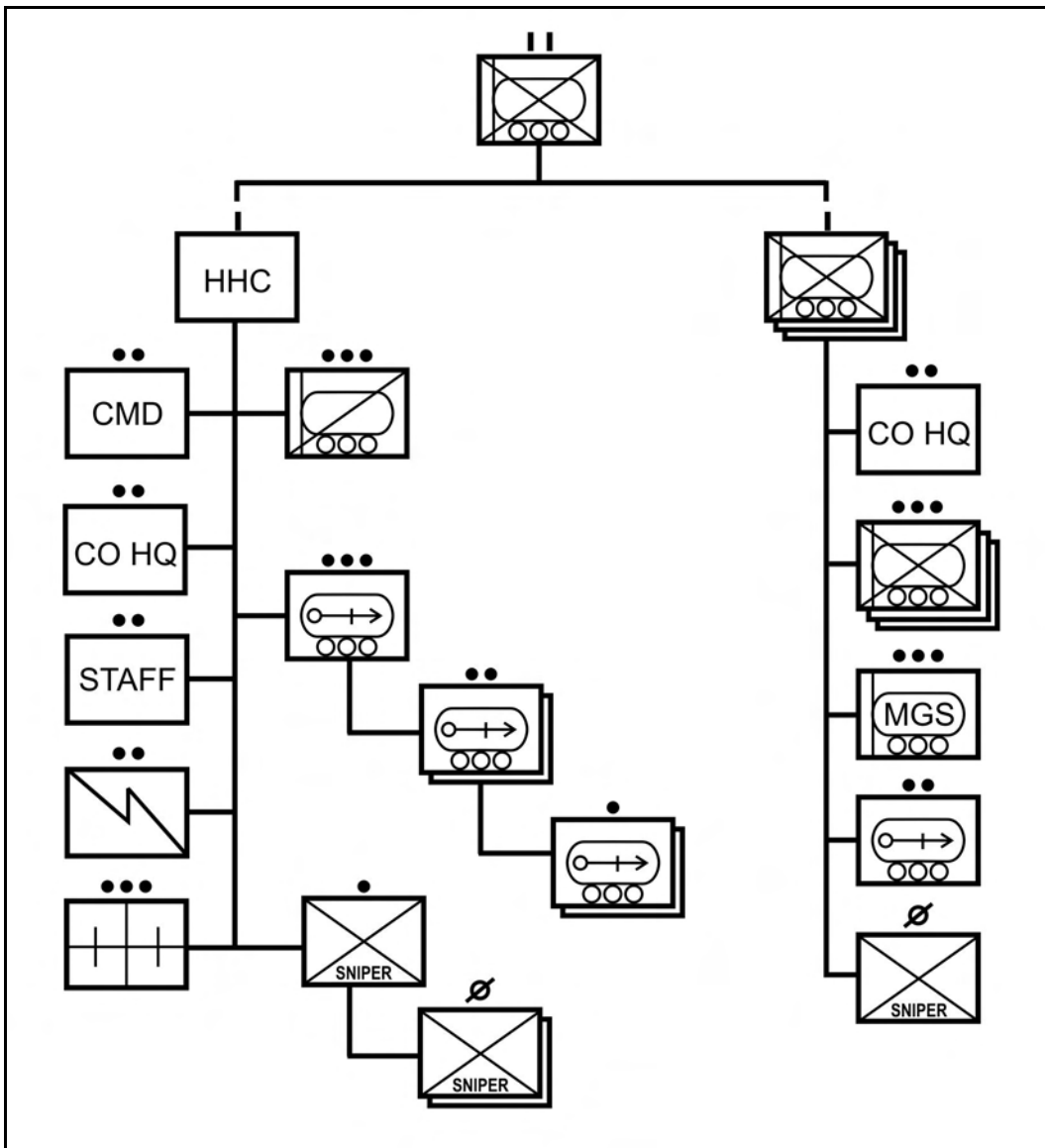
Figure 1-1. SBCT infantry battalion.

a. **Headquarters Section.** The headquarters consists of the command group and the coordinating and special staff to the battalion commander.

(1) *Battalion Command Section.* The battalion command section (Figure 1-2) consists of the battalion commander, the battalion executive officer (XO), the battalion command sergeant major (CSM), and supporting enlisted soldiers such as vehicle drivers.

The commander locates where he can observe and influence the critical points and actions on the battlefield and communicate orders and guidance. The battalion command section is equipped with the Stryker command vehicle (CV) and several wheeled vehicles to assist with the command, control, coordination, protection, and transportation of command section personnel throughout the battlefield.
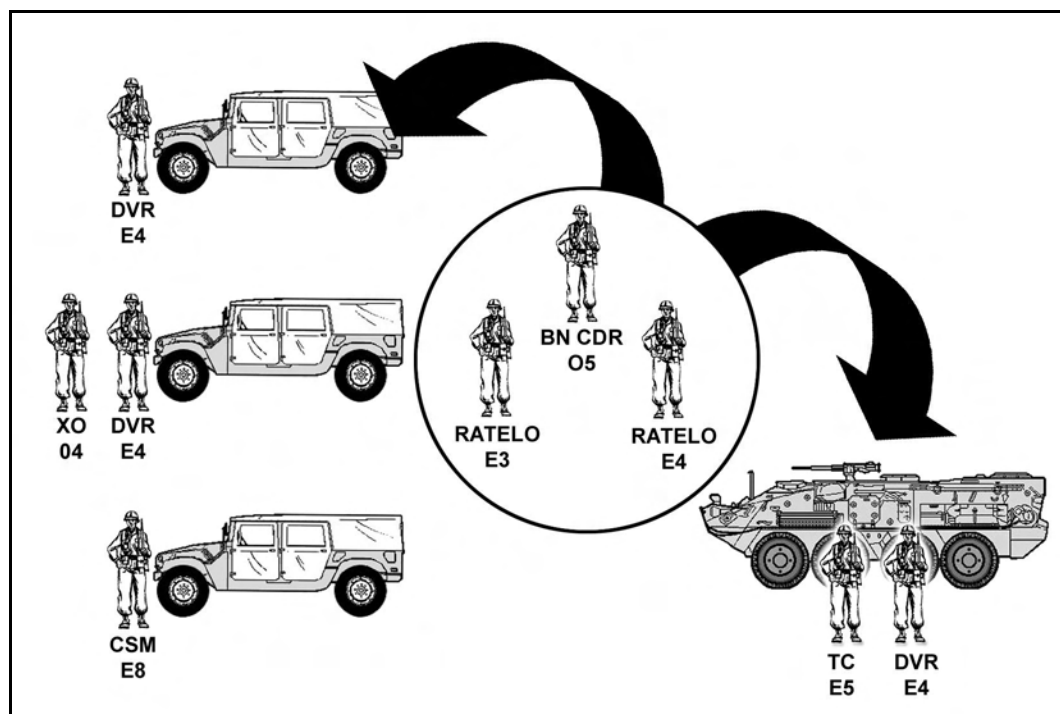
Figure 1-2. Battalion command section.

(a) *Battalion Executive Officer.* The battalion XO exercises the traditional doctrinal duties and responsibilities associated with this position in infantry battalions. His primary duties include--

- Exercising command in the absence or incapacitation of the commander.
- Synchronizing and integrating staff activities to optimize control of battalion operations.
- Direct supervision of the battalion main command post.
- Planning of CSS.
- Oversight of the integration of information management within the battalion.
- Execution of any other duties prescribed by the commander.

(b) *Battalion Command Sergeant Major.* The CSM is the senior noncommissioned officer (NCO) within the infantry battalion and advises the commander concerning the enlisted ranks. He is the senior enlisted trainer in the battalion and works closely with company commanders when coaching and training company first sergeants and platoon sergeants. He acts as the commander's representative in supervising aspects vital to battalion operations, as determined by the commander and by himself.

(2) *Battalion Coordinating and Special Staff.* The battalion coordinating staff consists of the personnel and administration section (S1), the intelligence section (S2), the operations section (S3), the logistics section (S4), the communications section (S6),

and the fire support element (FSE). The special staff consists of the chaplain and the medical platoon leader. All staff elements assist the commander with planning, organizing, employing, and sustaining the battalion.

(a) *Personnel and Administration Section.* The S1 section (Figure 1-3) is responsible for maintaining unit strength and conducting personnel actions. The S1 identifies and reports critical personnel shortages to the commander and higher headquarters. The S1 section ensures assigned personnel transition smoothly into and out of the battalion. It handles routine day-to-day tasks such as preparing battalion status and strength reports, monitoring and preparing personnel awards and orders, scheduling, and other administrative support as required. During tactical operations, the S1 section operates with the S4 section to provide CSS to the battalion, including unit strength reporting to higher headquarters and coordination of unit replacements as directed by the battalion commander. The S1 supervises the chaplain and medical platoon and any attached public affairs personnel. The S1 is also the staff point of contact for activities such as inspector general and judge advocate general issues.
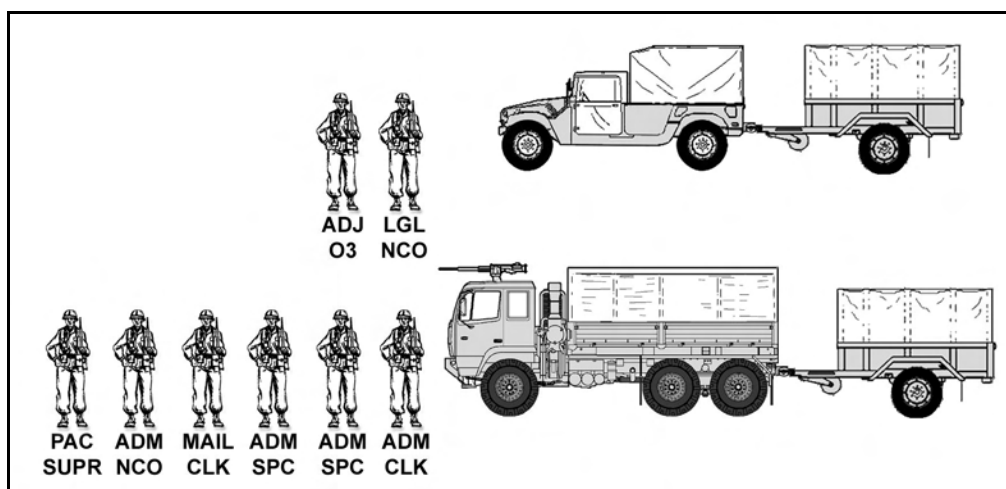
Figure 1-3. S1 section.

(b) *Intelligence Section.* Intelligence is one of the commander's most important decision-making tools. The S2 section (Figure 1-4) is responsible for providing timely and accurate intelligence analysis and products in support of the commander, staff, and subordinate units. The S2 supervises and coordinates collection, processing, production, and dissemination of intelligence (in conjunction with the S3). The section makes analytical predictions on when and where battlefield actions will occur. It also provides analysis on the effects of the battlefield environment on friendly and enemy courses of action and capabilities. The S2 is responsible for evaluating the enemy in terms of doctrine, order of battle, high-value and or high-pay-off targets, capabilities, and vulnerabilities. In conjunction with the S3, the S2 coordinates the battalion staff's recommended priority intelligence requirements (PIR) for inclusion in the commander's critical information requirements (CCIR). The S2 section integrates staff input to intelligence preparation of the battlefield (IPB) products for staff planning, decision-making, targeting, and combat assessment. The S2 also plans and manages ISR operations in coordination with the S3 and fire support officer (FSO).
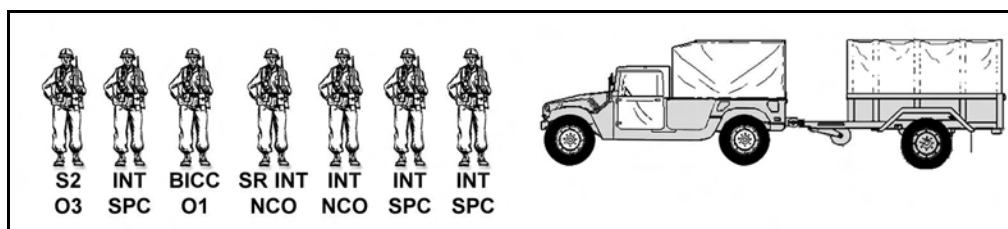
Figure 1-4. S2 section.

(c) *Operations Section.* The S3 section (Figure 1-5, page 1-10) is the commander's primary staff element for planning, coordinating, prioritizing, and synchronizing all battalion operations. The S3 section controls and directs the battalion main command post (CP). The main CP acts as the control center for battalion tactical operations and coordinates critical support operations, as required, with the other staff sections. The main CP controls current operations and plans future operations, providing the commander with critical combat information and disseminating the commander's decisions and guidance to the individual maneuver commanders and to principal and special staffs. The battalion main CP is located as far forward as possible. To ensure force protection and maintain survivability on the battlefield, it is capable of frequent, rapid displacement and is equipped with communications equipment with a low electronic signature. It facilitates clear and timely communications forward to subordinate maneuver commanders and higher headquarters. Personnel from the S3 section, S2 section, and FSE habitually man the battalion's main CP, along with an augmenting United States Air Force (USAF) tactical air control party (TACP) section and other supporting elements such as combat engineers, military intelligence, or air defense. (Refer to Appendix B, Command Post Operations.) The S3 section is equipped with a CV to transport the S3 as he assists the commander with the forward command and control of tactical operations. The remainder of the S3 section's vehicles are wheeled.
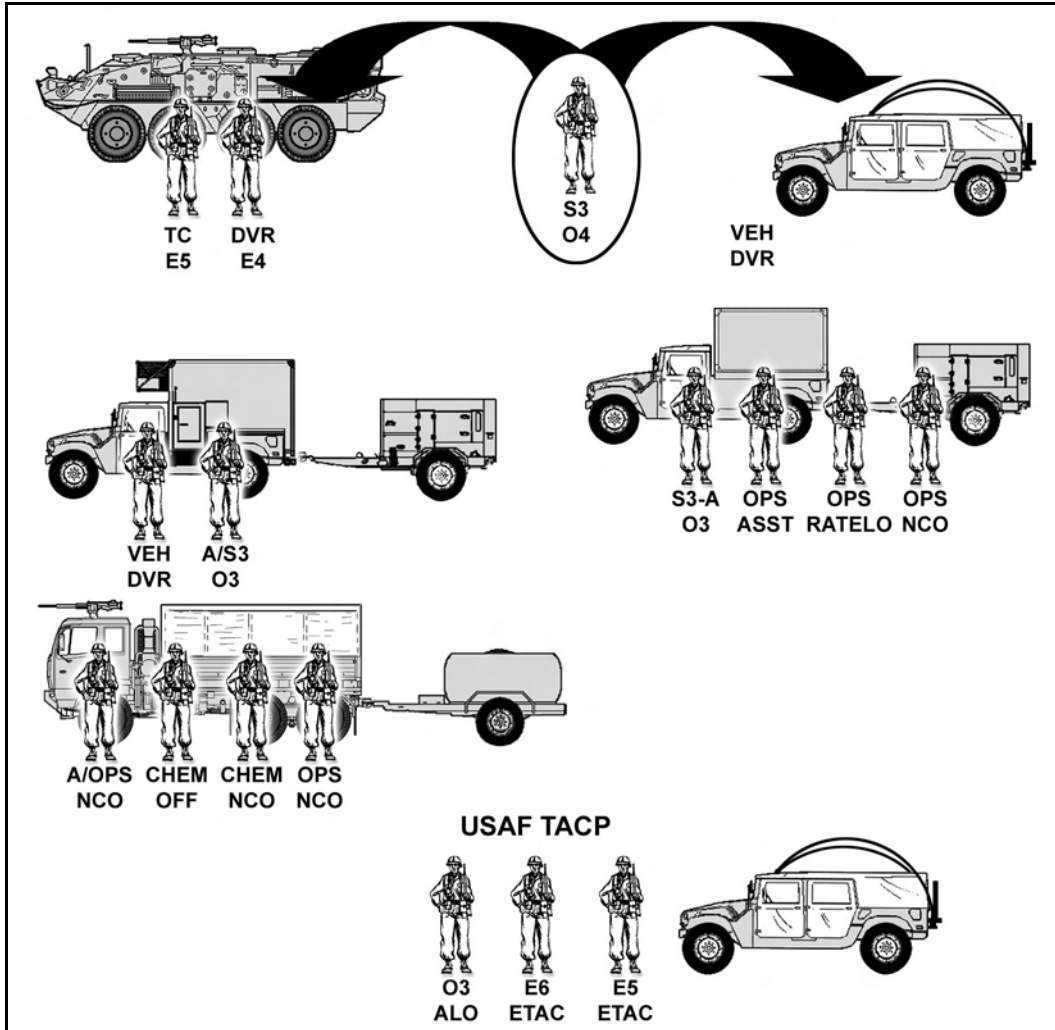
Figure 1-5. S3 section.

(d) *Logistics Section.* The S4 section (Figure 1-6) is responsible for providing logistical planning and support to the battalion and operates the battalion's combat trains command post (CTCP). The S4 functions as the commander's primary logistics planner and provides timely and accurate logistical information required to support and sustain the individual maneuver companies with all classes of supply. The S4 supports the S3's synchronization of combat and sustainment operations. The S4 section mans the CTCP in conjunction with elements of the S1 section and provides personnel and logistics reporting to higher headquarters. It also coordinates logistics resupply and unit replacements as required. The CTCP functions as the alternate battalion tactical operations center (TOC).
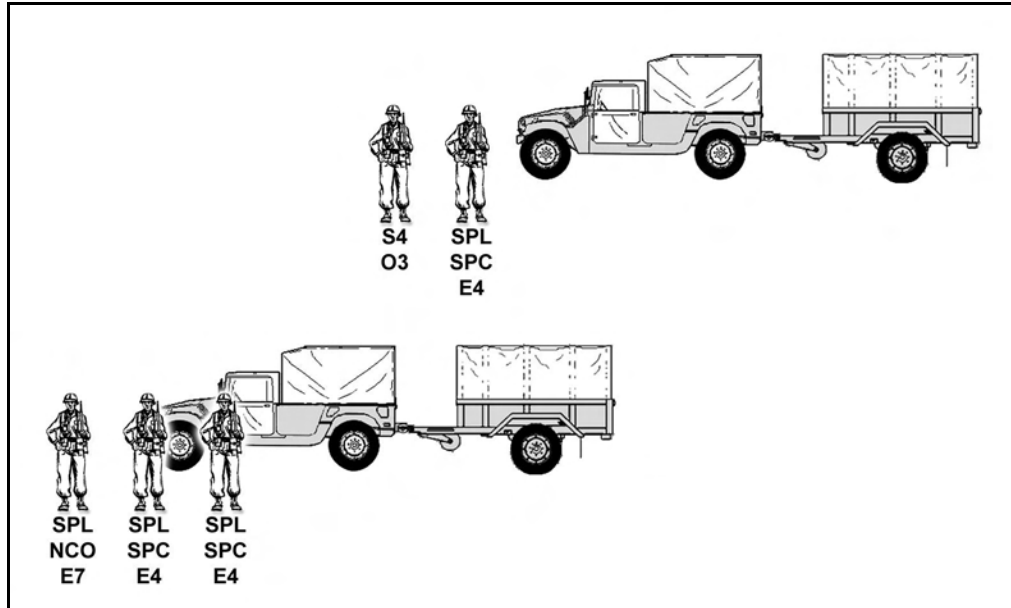
Figure 1-6. S4 section.

(e) *Communications Section.* The communications section (Figure 1-7, page 1-12) provides the battalion with communication personnel capable of supporting battalion and company operations. The S6 section's signal officer is the primary planner for all battalion communication and networking operations. He advises the commander, staff, and the maneuver companies on all network, signal, and communications matters. The section's communications personnel work closely with the S3 section to ensure and maintain clear lines of communication during tactical operations. The section has technical responsibility for information flow, networking of automated systems, and development of communications policies, procedures, and training. The communications section has 16 personnel and is equipped with two infantry carrier vehicles (ICVs) for radio retransmission and two high-mobility, multi-purpose, wheeled vehicles (HMMWVs) for executing other section missions.
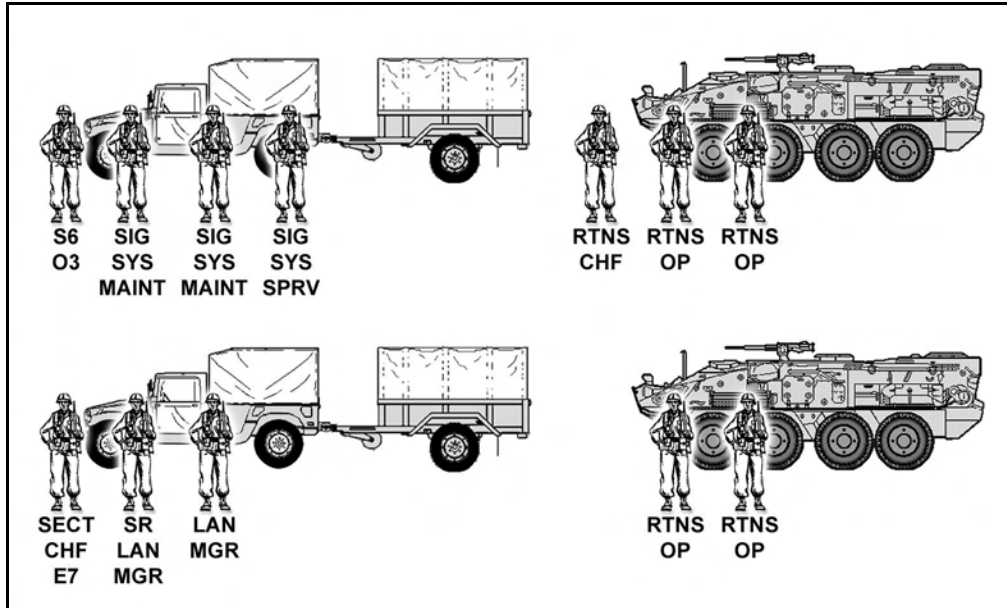
Figure 1-7. S6 section.

(f) *Fire Support Element.* The battalion FSE (Figure 1-8) consists of the fire support officer, a senior fire support noncommissioned officer (FSNCO), an assistant FSNCO, and one fire support specialist. The FSE assists the battalion commander and S3 with planning, integrating, coordinating, and executing all types of available supporting fires during tactical operations. The FSE is the commander's primary fire support coordinator and provides a direct link to the battalion's indirect fire support systems and supporting artillery units. Elements of the FSE habitually collocate with the battalion's TOC.
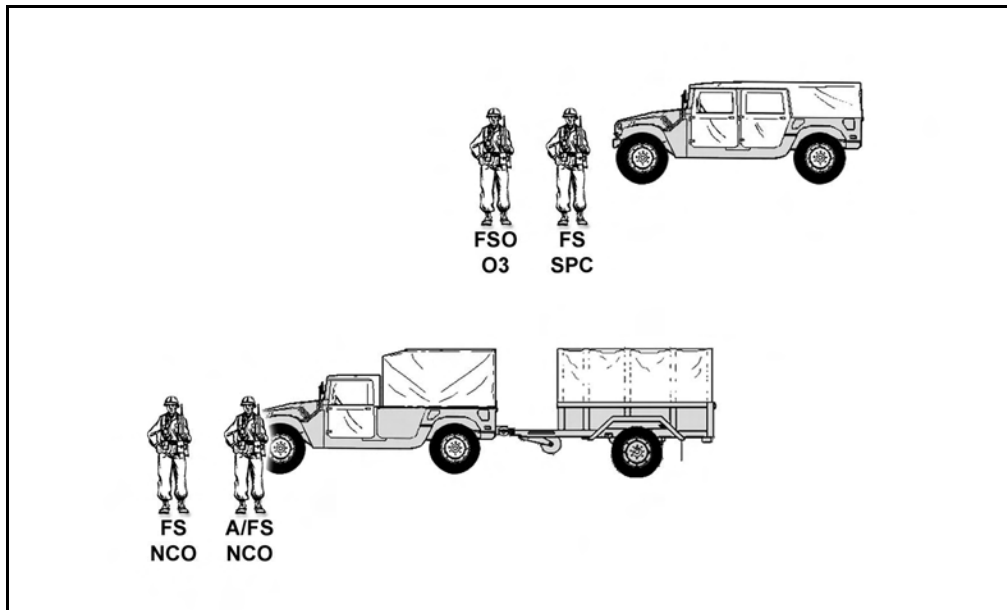
Figure 1-8. Battalion fire support element.

(g) *Chaplain.* The unit ministry team (UMT) (Figure 1-9) is composed of a chaplain and one enlisted chaplain's assistant. The unit ministry team facilitates and coordinates religious support across the battalion's area of operations (AO). The chaplain is also a special staff member who serves as a confidential advisor to the commander on the spiritual fitness and ethical and moral health of the command. The unit ministry team advises the commander on humanitarian aspects and the impact of command policies on indigenous religions. He provides and coordinates privileged and sensitive personal counseling and pastoral care to the unit's command, soldiers, authorized civilians, and families. The unit ministry team locates where it can best coordinate, communicate, and facilitate religious support.
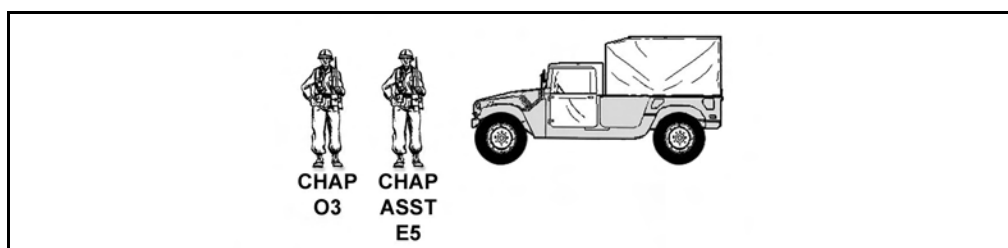
Figure 1-9. Unit ministry team.

b. **Headquarters Company.** The HQ company provides limited combat support (CS) and CSS to the battalion through its special platoons.

(1) *Company Headquarters Section.* The company headquarters section provides the immediate leadership, supply, and personnel support to all HHC personnel, including the battalion's command group, coordinating and special staff, and specialty platoons and squads. It includes the HHC commander, first sergeant (1SG), executive officer, and supporting supply and chemical sections. In a tactical environment, the HHC HQ section provides direct interface with the administrative and logistics support elements of the SBCT and brigade support battalion (BSB) in the brigade support area (BSA) and provides direct support to the battalion's TOC with regard to coordination of security and displacement operations. It is equipped with several wheeled vehicles to assist with the support of HHC elements, including two small decontamination apparatuses to provide limited immediate tactical decontamination capability.

(2) *Medical Platoon.* The medical platoon (Figure 1-10, page 1-15) provides health service support for the battalion. The medical platoon is organized with a headquarters section, a treatment squad, an evacuation squad, and a combat medic section. The medical platoon is responsible for providing Level I medical care. This care includes emergency medical treatment for wounds, injuries or illness, advanced trauma management, and sick call services. It also includes casualty collection, medical evacuation from the supported maneuver company to the battalion aid station (BAS). The medical platoon habitually establishes the BAS where it can best support the battalion. It normally operates under the direction of the battalion main CP and the CTCP.

(a) *Headquarters Section.* The headquarters section provides the command, control, communications, and resupply for the medical platoon. The platoon headquarters consists of the field medical assistant and the platoon sergeant; it normally collocates with the treatment squad to form the BAS. The headquarters section includes the plans and operations functions performed by the field medical assistant. The medical platoon

employs an frequency-modulated (FM) radio network for health service support (HSS) operations. The headquarters section serves as the net control station (NCS) for the medical platoon. The battalion surgeon, assisted by the field medical assistant and the platoon sergeant, is responsible for the HSS plan for the infantry battalion. See FM 4-02.4 and FM 8-55 for information on planning HSS for the maneuver battalion, military decision-making process (MDMP), course of action (COA), and medical troop leading procedures.

(b) *Treatment Squad.* The treatment squad consists of two treatment teams (Teams Alpha and Bravo). They operate the BAS and provide Echelon I medical care and treatment. This includes sick call, emergency medical treatment (EMT), and advanced trauma management (ATM). Team Alpha is staffed by the battalion surgeon, a health care sergeant (SGT), and two health care specialists. Team Bravo is staffed with a physician's assistant (PA), a health care SGT, and two health care specialists. The physician, PA, health care SGT, and specialists are trained to provide EMT and assist with ATM procedures, commensurate with their occupational specialties. The treatment teams can operate for limited times in split-based operations in direct support (DS) of battalion units.

(c) *Ambulance Squad.* Medical platoon ambulances provide medical evacuation and en route care from the soldier's point of injury or the company's casualty collection point (CCP) to the BAS. The ambulance team in support of the maneuver company works in coordination with the trauma specialists supporting the platoons. In mass casualty situations nonmedical vehicles may be used to assist in casualty evacuation as directed by the supported commander. Plans for the use of nonmedical vehicles to perform casualty evacuation should be included in the infantry battalion's tactical standing operating procedures (TSOP) and operations order (OPORD).

(d) *Combat Medic Section.* Trauma specialists are allocated on the basis of one trauma specialist per each rifle platoon in the battalion's rifle companies. The platoon trauma specialist normally locates with, or near, the rifle platoon leader or rifle platoon sergeant. The rifle company trauma specialist normally collocates with the 1SG. When the rifle company is engaged, he remains with the 1SG and provides medical advice as necessary. As the tactical situation allows, he will manage the company CCP, provide treatment, and prepare patients for medical evacuation (MEDEVAC). For definitive information on medical platoon operations, see FM 4-02.4 and FM 8-55.
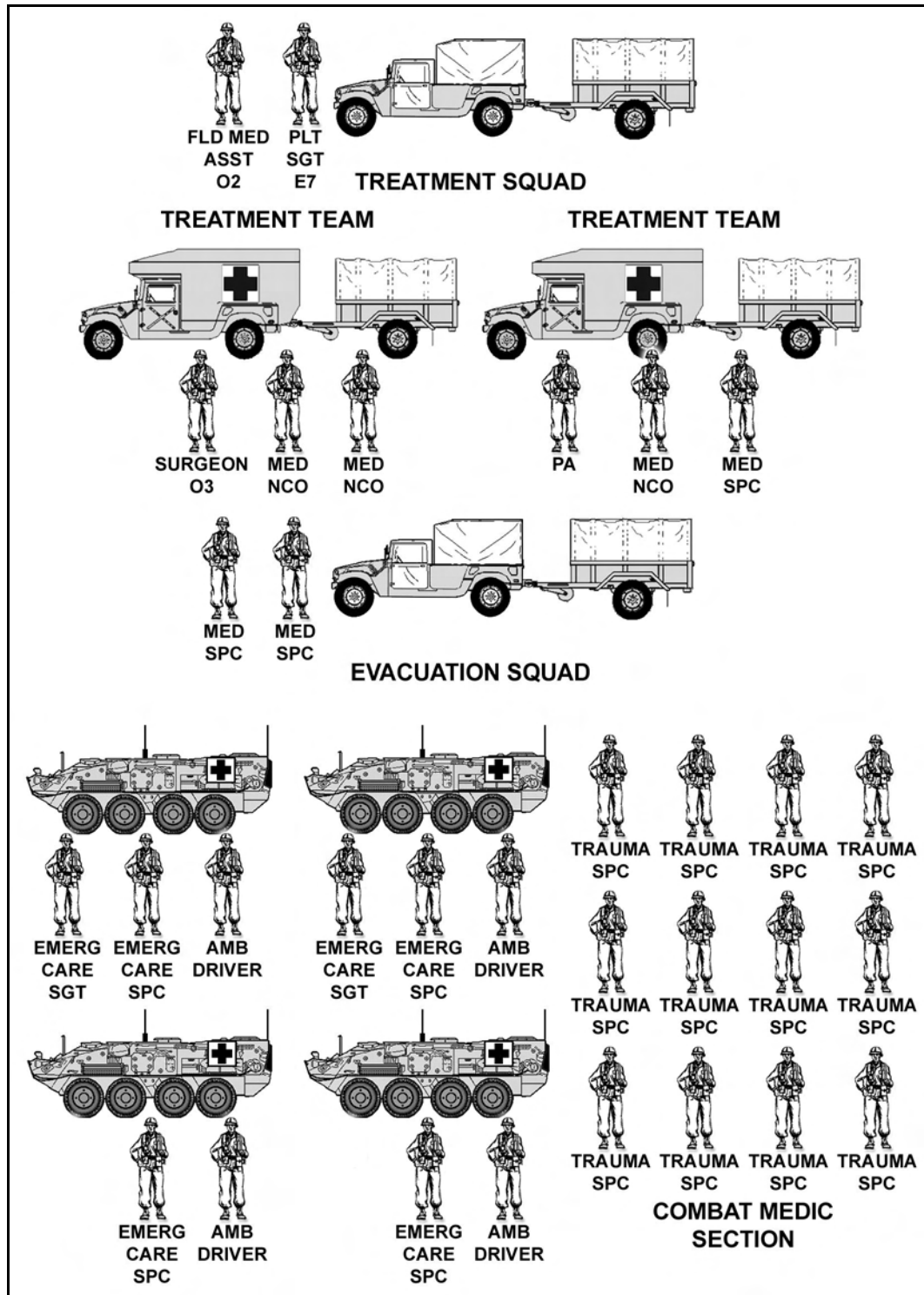
Figure 1-10. Medical platoon.

(3) *Reconnaissance Platoon.* The battalion reconnaissance platoon (Figure 1-11, page 1-17) serves as the forward "eyes and ears" for the battalion commander. The primary mission of the reconnaissance platoon is to conduct mounted and dismounted reconnaissance to determine enemy composition and disposition along named areas of

interest (NAIs) or targeted areas of interest (TAIs) defined within the battalion's ISR plan. The platoon has one officer and 23 enlisted personnel. The platoon leader employs both the mounted and dismounted reconnaissance elements within the platoon and is assisted by his platoon sergeant (PSG), who is the senior NCO in the platoon and is second in succession of command. He assists and advises the platoon leader and leads the platoon in his absence. The reconnaissance platoon is manned and equipped to enable the simultaneous conduct of both mounted and dismounted reconnaissance.

(a) The reconnaissance platoon is organized into two sections of two reconnaissance vehicles (RVs) each and three 5-man dismounted reconnaissance teams. These teams are divided between the platoon's two sections, with one "heavy" section transporting two reconnaissance teams and the other "light" team transporting one reconnaissance team and the platoon leader.

(b) The platoon is capable of conducting mounted and dismounted reconnaissance operations simultaneously. With slight platoon reorganization, each section also has this capability. Each section leader commands all elements of his section and is responsible for controlling the section's movement and intelligence collection requirements. He reports critical intelligence information obtained by his section to the reconnaissance platoon leader or battalion TOC. An assistant section leader assists with the command and control of the section. The vehicle elements of each section are capable of conducting traditional mounted reconnaissance missions (area, route, and zone) but must be supported by the section's dismounted reconnaissance team. The three dismounted reconnaissance teams are capable of independently conducting traditional dismounted reconnaissance missions similar to those of airborne, air assault, or light infantry battalions. These capabilities include the ability to provide long duration surveillance of NAIs, landing zone and pickup zone marking, terminal guidance for helicopter operations, and guides for the conduct of dismounted infiltration operations. If given the mission, the platoon's vehicles and design parameters provide it with the ability to maintain "surveillance" of four to six NAIs or TAIs at any one time by further breaking down into two to four mounted and two dismounted reconnaissance teams (the third team providing security for the mounted reconnaissance elements). The platoon can effectively observe three NAIs or TAIs for extended operations. The platoon's RVs provide the reconnaissance teams with protected battlefield transportation to critical locations on the battlefield. The mounted element also gives the platoon the mobility necessary to conduct effective route reconnaissance of two separate company mobility corridors and shift from one NAI to another rapidly. This organization enables the platoon to conduct both (limited) mounted and dismounted reconnaissance tasks simultaneously and provides the commander with the ability to reconnoiter throughout the battalion's battlespace.

(c) In either offensive or defensive operations, the commander may deploy his reconnaissance platoon to conduct limited screening operations of the battalion's front, flank, or rear or to occupy outposts from which it can relay critical information to the TOC concerning enemy composition and disposition. Once it establishes contact, the reconnaissance platoon's mobility and flexibility enable it to displace to critical locations along the enemy's route of movement or position itself to provide critical information that allows the commander to "visualize" the enemy in depth. The reconnaissance platoon may also be equipped to conduct terminal guidance operations (TGO) in support of ARFOR or joint aviation and artillery laser guided munitions.

(d) The commander may also deploy his reconnaissance platoon in a limited counterreconnaissance role and use it as a framework for the integration of other information collection assets such as Prophet teams and tactical HUMINT teams.
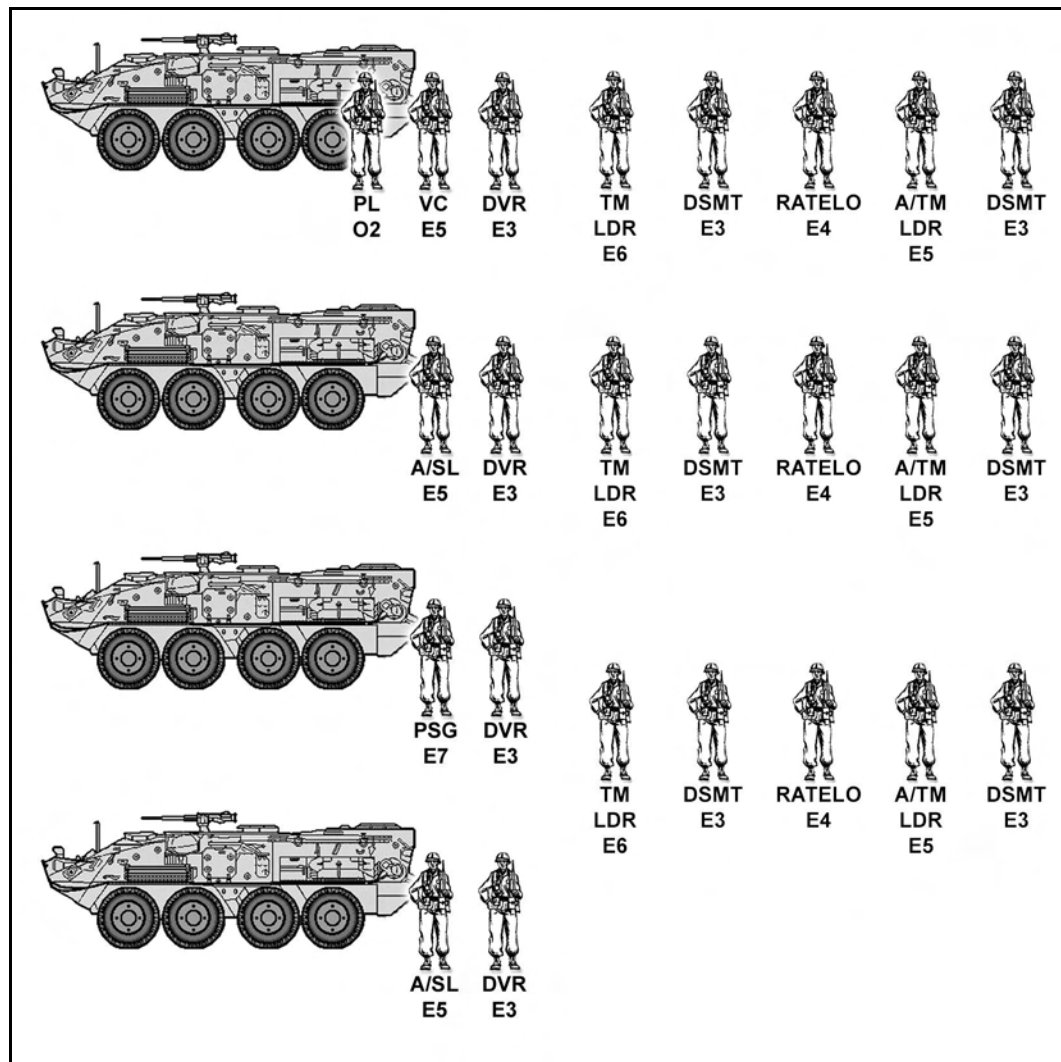
Figure 1-11. Reconnaissance platoon.

(4) *Mortar Platoon.* The primary role of the battalion mortar platoon (Figure 1-12, page 1-19) is to provide immediate, responsive indirect fires that support the maneuver of the companies or battalion and that reinforce direct fires during close combat. The battalion mortar platoon consists of four 120-mm heavy mortars mounted on four Stryker mortar carriers (MCs). Each mortar carrier crew consists of four infantry indirect fire specialists. Adopting the "arms room concept" as a standing operating procedure (SOP), the platoon is also equipped with four 81-mm "strap-on" mortar systems which are stowed in the platoon's MCs. The 81-mm mortar systems enable the mortar platoon to provide dismounted mortar support to the battalion during air assault and infiltration operations. The MCs improve the survivability of the mortar crew and equipment by providing increased flexibility, responsiveness, mobility, and protected transportation.

The platoon's fire direction center (FDC) controls and directs the mortar platoon's maneuver and fires. With the addition of the mortar fire control system (MFCS), the battalion can potentially mass the effects of the two mortar platoon sections and the three company mortar sections, all under control of the mortar platoon HQ.

(a) Specifically, the mortar platoon provides the commander the ability to support the infantry's close fight with indirect fires that--

- Shape the conditions for maneuver.
- Provide close supporting fires for assaulting infantry forces in restricted and severely restricted terrain.
- Destroy, neutralize, suppress, degrade, or disrupt enemy forces and force armored vehicles to button up.
- Break up enemy troop concentrations (mounted and dismounted) and destroy the enemy's synchronization.
- Fix enemy forces or reduce the enemy's mobility and canalize his assault forces into engagement areas.
- Deny the enemy the advantage of defile terrain and force him into areas covered by direct fire weapons.
- Provide standoff fires against light armored vehicles.
- Optimize indirect fires in urban terrain.
- Significantly improve the dismounted infantry's lethality and survivability against a close dismounted assault.

(b) Each mortar system (120-mm or 81-mm) is capable of providing three primary types of mortar fires:

- High explosive (HE) rounds are used to suppress or destroy enemy dismounted infantry, mortars, and other supporting weapons and to interdict the movement of men, vehicles, and supplies in the enemy's forward area. Bursting white phosphorus (WP) rounds are often mixed with HE rounds to enhance their suppressive and destructive effects.
- Obscuration rounds are used to conceal friendly forces as they maneuver or assault and to blind enemy supporting weapons. Obscurants can be used to isolate a portion of the enemy force while it is destroyed piecemeal. Some mortar rounds use bursting WP to achieve this obscuration; others employ more efficient technology. Bursting WP may be used to mark targets for engagement by other weapons, usually aircraft, and for signaling.
- Illumination rounds are used to reveal the location of enemy forces hidden by darkness. They allow the commander to confirm or deny the presence of the enemy without revealing the location of friendly direct fire weapons. Illumination fires are often coordinated with HE fires both to expose the enemy and to kill or suppress him.
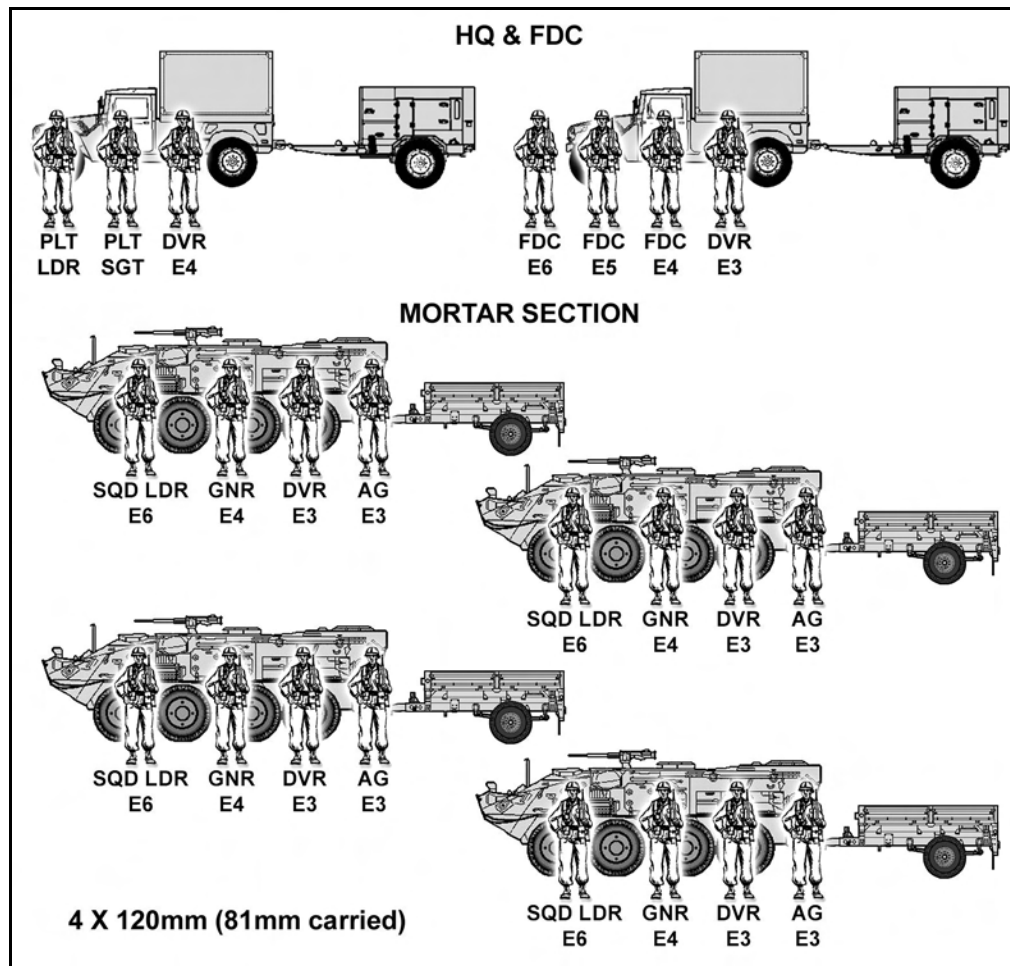
Figure 1-12. Mortar platoon.

(5) *Sniper Squad.* The battalion sniper squad (Figure 1-13, page 1-20) is a modular organization consisting of a squad leader and two similarly equipped three-man sniper teams. (Refer also to Appendix C, Sniper Employment.) Each team is capable of providing the battalion with a full range of sniper support and is equipped with both the M24 7.62-mm sniper rifle (providing anti-personnel fires out to 800 meters) and the .50-caliber XM107 sniper rifle (providing antipersonnel and anti-equipment fires beyond 800 meters). This "arms room" concept allows 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 rifle system to provide protection and security for the sniper and his spotter as well as a means to break contact if the team is compromised. Battalion snipers are employed to support maneuver, to kill essential enemy leadership or command personnel, to disable lightly armored or "thin skinned" vehicles, to enhance force protection, to provide lethal accurate fires in urban operations, and to perform the counter-sniper role. During security missions, stability operations, or when operating in an SSC with extremely restrictive rules of engagement (ROE), sniper teams are used extensively in the countersniper role as a means of providing force protection without creating unwarranted collateral damage. The modularity of the sniper teams enables the augmentation of a sniper team to a subordinate company or task-organization of a

company sniper team to the battalion sniper squad for the execution of specific sniper missions.
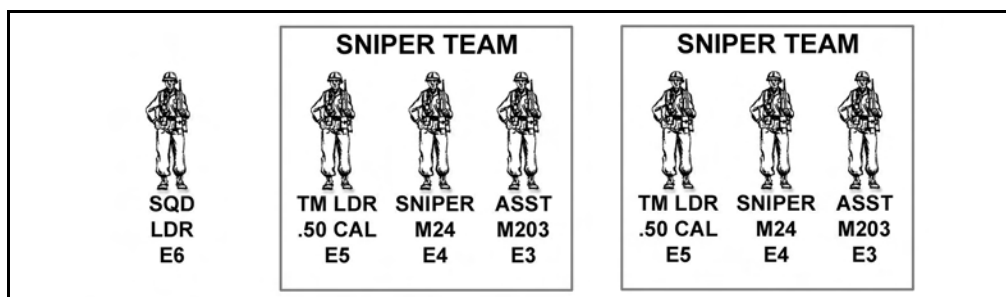
Figure 1-13. Sniper team.

(6) ***Other Attachments.*** The augmenting USAF TACP consists of the air liaison officer (ALO) and two enlisted terminal air controllers (ETAC). The TACP assists the commander with the planning, integration, and execution of close air support (CAS) operations. It is the commander's primary link to Air Force CAS assets that are made available to support the battalion's mission (Figure 1-5, page 1-10).

Section III. BATTLEFIELD OPERATING SYSTEMS

Successful tactical operations require coordination, integration, and synchronization of all combat, CS, and CSS elements of the SBCT infantry battalion. Synchronization of the battlefield operating systems (BOS) occurs horizontally and vertically throughout the battalion. A discussion of BOS functions, organizations, digital systems, and integration considerations follows.

1-13. INTELLIGENCE

Intelligence is fundamental to effective planning, security, and deception. Intelligence operations are the organized efforts of a commander to gather and analyze information on the environment and the enemy. All units have the responsibility to report information about the enemy. However, the battalion has only the reconnaissance platoon and infantry patrols tasked to gather information. The SBCT employs a multilevel, integrated suite of ISR capabilities to develop and disseminate a common operational picture throughout the force. The cavalry squadron (RSTA) is the central capability for providing combat information to build the knowledge base necessary to achieve SU. Situational understanding and information superiority enable the force to avoid surprise, develop rapid decisions, conduct maneuver with synchronized fires and effects, and achieve decisive outcomes. This information is disseminated through an internetted force in order to carry out effective information management and achieve the quality of information sharing necessary for multi-echelon planning and execution.

1-14. MANEUVER

The maneuver companies of the battalion destroy enemy forces and seize and hold terrain. All other battalion assets support the maneuver elements. The battalion achieves decisive action by means of combined arms at the company level focused on infantry

assault. This effort is often supported by direct fires from organic weapon systems onboard the Stryker and the MGS, combined-arms integration of mortars, and artillery.

a. The commander may decide, in rare situations, to fight as a mounted force; he bases this decision on METT-TC and a thorough understanding of the situation. The mounted force initially seeks to overwhelm the enemy force through a mounted engagement, based on a rapid assessment of the situation. In accordance with the commander's guidance, the formations in contact may disengage or dismount and attack to achieve a decisive outcome.

b. Army aviation assets are maneuver assets that may conduct operations in support of the battalion even though aviation assets normally remain operational control (OPCON) to the brigade. Army aviation attack helicopters can conduct combat missions to find, fix, and destroy enemy forces using fire and maneuver and to concentrate and sustain combat power at the critical time and place. Aviation assets can also provide timely reconnaissance and surveillence information to ground maneuver commanders and conduct air movement operations in conjunction with infantry forces.

1-15. FIRES AND EFFECTS

The fires and effects system coordinates and provides full-spectrum fires and effects in time, space, and purpose to enable the SBCT to conduct decisive operations during MTWs, SSCs, or PMEs. The fires and effects system acquires and tracks targets; delivers timely and accurate fires; provides proactive counterfire; and plans, coordinates, and orchestrates full-spectrum fires and effects. Battalions rely heavily on the SBCT effects coordination cell (ECC) to plan, coordinate, and integrate effects-based fires into the battalion's combined-arms operations. The FSE receives guidance from the commander regarding the effects desired in time, space, and purpose. The FSE then plans, coordinates, and achieves the desired effects using organic and nonorganic means in a rapid and responsive manner. Each FSE has subordinate fire support teams that support each infantry company. Each fire support team provides the maneuver companies with a resident fires and effects coordination and terminal control capability, with an emphasis on precision target acquisition to enable effective engagement of targets with lethal fires and assessment of effects. The TACP, consisting of an air liaison officer and enlisted tactical air controller, integrates into each maneuver battalion headquarters alongside the FSE, providing the ability to request, coordinate, and control close air support.

1-16. MOBILITY AND SURVIVABILITY

Battalions rely heavily on the SBCT's maneuver support cell to plan and integrate mobility, engineer, topographic, and military police efforts into full spectrum operations. Mobility and survivability preserve friendly freedom of maneuver, attack that of the enemy, and protect friendly forces from the effects of enemy weapons systems and the environment. All units, regardless of type, perform basic mobility and survivability tasks.

a. Topographical and reconnaissance capabilities resident within the maneuver support cell assist the brigade in acquiring real-time knowledge and products that portray critical aspects of the terrain and environment that are required for planning and executing battalion operations. During the decision-making process, as these products become available, the maneuver support cell pushes them to infantry battalions to facilitate parallel planning and maximize situational understanding.

b. The SBCT military police (MP) staff in the maneuver support cell provides embedded military police planning but does not include a military police element. The SBCT is normally augmented with MP staff and units from division or corps.

c. Units must be able to operate under nuclear, biological, and chemical (NBC) conditions to survive and accomplish their missions. Thus, units must apply and adhere to the NBC defense fundamentals. The fundamentals are contamination avoidance, NBC protection, and NBC decontamination. Additional support may be available from the NBC reconnaissance platoon organic to the cavalry squadron (RSTA). The platoon possesses limited capability to provide warning and enhance protection against an NBC threat. Decontamination assets within the CSS structure are limited. Additional requirements necessitate unit augmentation.

1-17. AIR DEFENSE
The battalion has no organic air defense artillery (ADA) assets. Depending on the brigade's organic air and missile defense (AMD) coordination cell's analysis of the threat, the SBCT may receive assets from the divisional short-range air defense battalion's direct support ADA battery. Even with the addition of ADA assets to the SBCT, however, the battalion may not have any ADA weapon systems directly task-organized. In the event of an air attack, the battalion should employ the combined arms for air defense procedures described in Chapter 10.

1-18. COMBAT SERVICE SUPPORT
The SBCT is capable of self-sustained combat operations for 72 hours. Due to the nature of the battalion's capabilities, the CSS structure is purposefully austere to increase force mobility. The traditional support platoon is not organic to the battalion. The battalion must rely on through-put from the brigade support battalion for supply operations that were previously handled by the organic support platoon. Initial sustainment relies on a combination of unit basic loads (UBLs) and configured loads from theater assets. Sustainment operations are characterized by centralized logistics. The battalion relies heavily upon aerial resupply until surface lines of communication are secure. Battlefield distribution must combine situational understanding with efficient air and surface delivery systems to form a seamless pipeline. Supplies are tailored and packaged for specific supported units based on a specific time and location.

1-19. BATTLE COMMAND
The digitized infantry battalion exploits its enhanced command and control (C2) systems to maintain an increased level of situational understanding for more informed decision-making regarding tactical employment. These systems assist the commander in his visualization, description, and direction of combat operations. These systems enhance staff integration and the synchronization of combat multipliers with maneuver forces during combined-arms operations. These C2 enhancements also permit the establishment of a variety of digital interfaces with differing higher headquarters (for example, parent brigade, other battalions, and joint task force [JTF] headquarters). Refer also to Appendix D, Digital Division Supplement.

a. **Information System.** The modern INFOSYS provide all commanders within the SBCT the capability to "visualize" and understand their battlespace in all its dimensions.

These capabilities are critical as the infantry battalion disrupts the enemy's decision-making and synchronizes combat power at the right time and place in accordance with the commander's vision. INFOSYS include the integrated systems of doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications designed to--

- Collect, evaluate, and interpret the information needed to answer PIR and information requirements (IR) in support of the commander's mission.
- Support a commander's exercise of command and control across the range of military operations through regulation of forces and functions in accordance with (IAW) commander's intent.

INFOSYS allow the battalion to conduct improved battlespace planning and coordination. Timely and accurate information enhances the commander's ability to command and control his forces, resulting in greater freedom of action, flexibility, and increased ability to reconfigure his forces rapidly in response to the enemy's changing activities. INFOSYS increase the battalion's capacity to share data among commanders, staff, and subordinate units, resulting in a greater synchronization of combat power at the right time and place. Force effectiveness is also enhanced by the battalion's ability to reach through the SBCT on a routine basis. Reach permits the battalion to reduce its footprint in the area of operations without compromising its ability to accomplish its assigned mission.

b. **Information Operations.** Friendly forces employ information operations (IO) to magnify their own combat power and diminish the enemy's. A key function is to degrade, disrupt, or exploit the enemy's ability to apply his operating systems. Typical components are command and control warfare (C2W), physical destruction, deception, operational security (OPSEC), psychological operations (PSYOP), civil affairs (CA), and public affairs.

(1) The SBCT infantry battalion conducts IO (coupled with information management) to achieve information superiority. IO are those actions taken to affect the decision-making processes, information, and information systems of adversaries and to influence others while protecting friendly decision-making processes, information, and information systems. The ability of military forces to conduct full-spectrum operations is critically dependent on the information environment. In SSCs, the battalion may encounter an elusive, asymmetrical enemy conducting IO not only on a theater scale but also globally. The global efforts may be focused at affecting the support of American citizens. The SBCT possesses an unparalleled organic and reach capability to conduct IO successfully both to shape the battlefield for decisive operations and to mitigate or defeat its opponent's efforts along similar lines.

(2) The multifunctional FSE structure enables it to perform all tasks of a traditional FSE plus provides the ability to integrate available fires capabilities and to plan and monitor information operations in support of the operations plan. Overall responsibility for planning and oversight of IO is embedded within the ECC in the form of an IO team. As an integral part of effects planning, the IO team synchronizes organic SBCT infantry battalion assets with reach resources to develop the IO component of the effects concept and operations plan.

(3) The battalion employs operational IO IAW FM 100-6. This requires an interrelated INFOSYS architecture to achieve information superiority. C2W requires the

battalion to employ attacks against an opponent's C2 system to degrade his abilities and shape the battlefield for decisive combat while protecting friendly C2 both to protect the force and to preserve the ability to synchronize combat operations. CA secures local acceptance of and support for US forces and is orchestrated as part of IO through the ECC.

CHAPTER 2
BATTLE COMMAND

Battle command is the exercise of command in operations against a hostile, thinking enemy. It applies the leadership element of combat power to operations. Principally, battle command is an art that employs skills developed by professional study, constant practice, and considered judgment. Commanders, assisted by staff, visualize the operation, describe it in terms of intent and guidance, and direct the actions of subordinates within their intent. They direct operations in terms of the battlefield operating systems and directly influence operations by their personal presence supported by their command and control system. Command of the battalion remains a personal function. The function of command and control is to plan, prepare for, and execute the other tactical tasks, to synchronize activities among them, and to assess the situation continually. The capabilities available via the SBCT information systems infrastructure provide the commander with an ability to lead and make decisions from anywhere on the battlefield while remaining closely tied to planning and preparation ongoing in the main CP.

Section I. THE ART OF COMMAND

Command is the authority that a commander in military service lawfully exercises over subordinates by virtue of rank and assignment. Leaders possessing command authority strive to use it with firmness, care, and skill. Command is more an art than a science, although it exhibits characteristics of both. The "art of command" requires expert performance of a specific skill using intuitive faculties that the leader cannot gain solely by study or education. Command also requires a conscious and skillful exercise of authority to fulfill command responsibilities through decision-making and leadership.

2-1. ROLE OF THE COMMANDER
The SBCT infantry battalion commander's knowledge, experience, and personality determine how he interacts with his unit through command and control. The commander decides what he needs to do and the best method to do it, and he leads his unit to accomplish the mission. He drives the process through mission command. He establishes a command climate for his unit, prepares his unit for operations, commands his unit during operations, and assesses his subordinates. The commander refines the battalion's command and control system and operates it based on his personality. He establishes a system to meet the unique demands that he places on his unit, the abilities and personalities of his subordinates, and the capabilities of the equipment in the SBCT infantry battalion.

2-2. MISSION COMMAND
Mission command is the conduct of military operations through decentralized execution based on mission orders for effective mission accomplishment. Mission orders leave the "how" of mission accomplishment to the subordinates by allowing them maximum freedom of planning and action to accomplish missions. Successful mission command

results from subordinate leaders exercising disciplined initiative within the commander's intent to accomplish missions. Mission command requires an environment of trust and mutual understanding. The four elements of mission command are commander's intent, subordinate initiative, mission orders, and resource allocation.

a.   **Commander's Intent.** Commander's intent is a clear, concise statement of what key tasks the unit must do and what conditions it must meet to succeed with respect to the enemy, terrain, and the desired end state. Key tasks do not necessarily have to be tactical tasks. The commander formulates and communicates his intent to ensure unity of effort during operations, allowing subordinates to exercise disciplined initiative.

b.   **Subordinate Initiative.** Initiative is the assumption of responsibility to decide and initiate independent actions when the commander's concept or order is no longer applicable or when an unanticipated opportunity leading to the accomplishment of the commander's intent presents itself. Subordinates decide how to achieve their assigned missions within the delegated freedom of action and the exercise of disciplined initiative during execution; however, they have an absolute responsibility to fulfill the commander's intent.

c.   **Mission Orders.** A mission order is a technique for completing combat orders to allow subordinates maximum freedom of planning and action in accomplishing missions. The commander intervenes to direct coordination, restore operations, or exploit success. At a minimum, mission orders state--

- Task organization.
- Commander's intent and purpose and concept of operations two levels up.
- Unit mission.
- Subordinate unit missions.
- Mission-essential coordinating instructions.

d.   **Resource Allocation.** The commander allocates appropriate resources to subordinates to accomplish their missions. The commander must also consider information (or the INFOSYS infrastructure) as a resource and share it through all levels of his command.

2-3.   LOCATION OF THE COMMANDER

In the past, commanders have been torn between the conflicting requirement to visualize the battlefield and the requirement for their presence in the main or tactical command post to participate in the military decision-making process. This dilemma slowed the planning and execution of operations while frustrating the commanders' efforts to "get out of the command post."

a.   All commanders within the SBCT infantry battalion have the ability to visualize their battlespace in all dimensions and to share a common operational picture. They also have the ability to locate and track high-payoff targets (HPTs) precisely and conduct simultaneous operations while operating with joint and multinational forces. In addition, battalion commanders retain the ability to recognize and protect their own and other friendly forces. The commander cannot, however, fully visualize the battlefield while directing and synchronizing the efforts of his battalion from a computer screen at a command post (CP). He must move from the CP to assess the situation face-to-face with subordinate commanders and their soldiers. The C2 infrastructure within the SBCT infantry battalion permits a commander to position himself where he can best command

without depriving himself of the ability to respond to opportunities and changing circumstances.

b. The commander can be anywhere on the battlefield to best affect current operations without disrupting the planning and preparation for future operations. Near-real-time information updates, continuous assessment, and command decisions can be briefed, approved, and disseminated from battalion to company team level via the C2 infrastructure.

2-4. COMBINING THE ART OF COMMAND AND THE SCIENCE OF CONTROL

The commander is the key to command and control in the battalion. Foremost among his roles is his ability to combine the art of command and the science of control. He must use a methodology of visualizing the battlespace, describing his visualization to subordinates, directing action to achieve results, and leading the unit to mission accomplishment, with continuous assessment throughout the mission.

a. **Visualize.** The commander's visualization is the core mental process that supports his decision-making and by which he combines the art of command and the science of control. It is the process of achieving a clear understanding of the battalion's current state with relation to the enemy and the environment, developing a desired end state that represents mission accomplishment, and determining the sequence of activities that moves the battalion from its current state to the end state. The commander begins to visualize the desired end state when he receives a mission or perceives a change in the mission. He applies his current situational understanding to the received or perceived mission. As he analyzes or receives staff analysis of the mission, he develops a mental image of the friendly forces in relation to the enemy, the environment, and possible future operations at the conclusion of the operation. The commander's visualization is his assessment tool throughout the operation. He should focus on three main factors.

(1) *Understand the Current State of Friendly and Enemy Forces.* This is situational understanding that the commander derives from applying his judgment, experience, expertise, and intuition to the COP. Situational understanding includes physical factors, human factors, and the relationships between friendly and enemy forces and the environment that represent potential opportunities or threats for the battalion.

(a) *Common Operational Picture.* The Army continues to invest in technologies and develop procedures that increase commanders' ability to understand their battlespace. COP is an operational picture tailored to the commander's requirements, based on common data and information shared by more than one command. The COP is displayed at a scale and level of detail that meets the information needs of the commander. C2 systems fuse information from a variety of sources, while INFOSYS facilitate its rapid distribution in usable displays that facilitate understanding. The COP includes friendly, enemy, and environmental elements and helps the commander to make timely, accurate decisions.

(b) *Situational Understanding.* SU is the product of applying analysis and judgment to the COP to determine the relationships among factors of METT-TC. It enhances decision-making by identifying opportunities, threats to the force or mission accomplishment, and information gaps. However, SU is imperfect, particularly with

respect to the enemy situation. It requires constant verification. Situational understanding focuses on the current situation, and it can reduce the friction caused by the fog of war.

(2) *Foresee a Feasible Outcome.* The commander must identify a feasible outcome to the operation that results in mission success and leaves the battalion postured for the next operation.

(3) *Visualize the Dynamics Between Opposing Forces.* The commander must identify the dynamics of opposing forces throughout the sequence of actions. This includes evaluating possible enemy reactions and friendly counteractions. This evaluation may lead to the identification of possible critical decision points throughout the operation.

b. **Describe.** The commander describes his visualization by participating in the MDMP during planning and preparation for an operation and during execution. Specifically, his commander's intent, planning guidance, anticipated decision point, and commander's critical information requirements all serve to guide and focus the command and control system to support his decision-making and to communicate his decision for execution. The C2 infrastructure is available to assist the commander in describing his visualization. However, he should not accept the products of C2 unquestioned. He must apply his judgment, experience, expertise, and intuition before making a decision and describing that decision to subordinates. During preparation, the commander uses the rehearsal to describe further his intent and concept to his subordinates, to identify and discuss options at decision points, to synchronize activities within the battalion and among subordinate units, and to add to his own visualization. During execution, the commander continues to visualize the implication of events, and he describes his conclusions to his staff and subordinates through updated CCIR and guidance.

c. **Direct.** The commander directs when he has made a decision and communicates that decision to his subordinates through an order.

(1) *Plan.* Orders should enable subordinates to understand their situation, their commander's mission and intent, and their own mission. The orders process (warning order [WARNO], OPORD, and if needed, fragmentary order [FRAGO]) should provide unity of effort in exercising disciplined initiative by subordinate commanders. Clear direction is essential to mission success; however, commanders must strike a balance between *necessary but minimum direction* and *overly detailed direction*. The commander, or his staff, assigns graphical, written, or procedural control measures (permissive or restrictive) to prevent units from impeding one another and to impose necessary coordination. The commander should impose only the minimum control measures necessary to provide essential coordination and deconfliction among units.

(2) *Prepare.* The commander must update and validate his visualization during preparations as the results of reconnaissance and surveillance operations become available. He must determine whether new information (on enemy forces, friendly forces, or the environment) invalidates his plan, requires him to adjust the plan, or validates the plan with no further changes. The earlier the commander identifies the need for modifications, the easier it is for him to incorporate and synchronize them into his plan. He describes the implications of his updated visualization and directs actions to effect his changes to the plan throughout the orders process.

(3) *Execute.* Execution includes a continuous process of assessing the current state of the operation and making adjustments to exploit opportunities and to account for

unforeseen enemy actions. Combining the art of command and the science of control is most evident during execution. The commander exercises judgment and initiative continuously, assessing the situation and making decisions often with incomplete, conflicting, and vague information. Waiting for perfect information is rarely an option. During execution, the commander uses his visualization, continuously updated with a near-real-time COP, to ensure that his subordinate units execute appropriate measures for the actual situation. A major part of the "art of command" is to know when the plan must change and what criteria indicate a need for changes and then to determine what changes will maximize unit effectiveness. The commander directs these actions primarily through a FRAGO.

Section II. COMMAND AND CONTROL

Command and control consists of two components: the commander and the command and control system. The commander uses the command and control system to exercise C2 over forces to accomplish a mission.

2-5.   THE COMMAND AND CONTROL SYSTEM

The command and control system is the arrangement of personnel, information management, procedures, and equipment and facilities essential to the commander to plan, prepare for, execute, and assess operations.

    a.   **Personnel.** The command and control system in a battalion begins with people. No amount of technology can reduce the importance of the human dimension since combat involves soldiers.

    b.   **Information Management.** Information management (IM) is the provision of relevant information to the right person at the right time in a usable form to facilitate situational understanding and decision-making. It uses procedures and information systems to collect, process, store, display, and disseminate information. It consists of relevant information and information systems. The computers--hardware and software-- and communications directly involved in C2 constitute the C2 INFOSYS. The C2 INFOSYS provide an accuracy and reliability that can accelerate decision-making within the battalion. The C2 INFOSYS also make mission execution efficient and effective, allowing commanders and staffs to spend more time and energy on the art and human dimension of command and control.

    c.   **Procedures.** Procedures are standard and detailed sequences of activities within the battalion to accomplish tasks. They govern actions within the command and control system to exercise command and control effectively and efficiently. Adhering to procedures minimizes confusion, misunderstanding, and hesitance as commanders rapidly shift forces to meet contingencies.

    d.   **Equipment and Facilities.** The equipment and facilities provide sustainment and a work environment for the other elements of the command and control systems.

2-6.   INFOSYS INFRASTRUCTURE

As the Army moves toward more digitization in the C2 system, the most important aspect of digital capabilities centers on the combined suite of information technologies within the INFOSYS. The manner in which these technologies combine accelerates decision-making and makes it more accurate and reliable. These technologies also support

efficient and effective execution. INFOSYS serve by reducing the human labor required to organize information into a usable form. Used correctly, these capabilities should allow commanders and staffs to spend more time and energy on the art and human dimensions of C2. These powerful capabilities support mission command.

a.   The C2 infrastructure is a system of intelligence, surveillance, and reconnaissance doctrine, procedures, organizational structures, personnel, equipment, facilities, and communications and computers. It is designed to collect, process, store, display, and disseminate the information needed to develop a common operating picture in support of a commander's mission. It supports a commander's exercise of command and control across the range of military operations through regulation of forces and functions IAW the commander's intent.

b.   The C2 infrastructure provides the commander and staff with the ability to plan, prepare, and execute using resilient voice and data communications networks to enable effective command and control on the battlefield. This capability includes the conduct of operations from alert through redeployment. It also includes conduct of counterintelligence operations to deny the adversary's ability to do the same. The battalion integrates the C2 infrastructure through maneuver, fires and effects, logistics, force protection, information operations, and intelligence.

c.   The battalion's C2 is organized to leverage fully the opportunities presented by near-real-time access to all relevant information and a near-complete COP. The C2 organization provides all commanders within the battalion with the capability to visualize and understand their battlespace in all its dimensions. It provides a shared COP of the situation, precisely locates and tracks critical targets, synchronizes simultaneous operations, operates with joint and multinational forces, and recognizes and protects its own forces. This capability allows significantly enhanced synchronization of widely dispersed, highly mobile forces in execution as well as in planning to mass effects. The battalion's C2 systems employ "smart technology" to enable organizations to identify and adapt to the changing patterns of a nondoctrinal or difficult-to-template enemy.

2-7.   EXERCISING COMMAND AND CONTROL

The battalion commander must place the command and control system into action to exercise command and control. Exercising command and control is dynamic throughout the operations process. The digital INFOSYS assist the commander in exercising C2 by allowing three things to occur: near-simultaneous parallel planning; collaborative planning between two or more echelons; and early, continuous, high-quality up-dates of the COP. These capabilities allow the commander to initiate execution faster within a less time intensive plan.

a.   Although planning, preparing, executing, and assessing occur continuously in operations, they need not occur sequentially. The battalion must prepare to perform all four actions simultaneously, and the commander is at the center of the process (Figure 2-1).

b.   The operations process is execution-focused rather than planning-focused. The C2 INFOSYS compress planning to allow more time to focus on execution. The INFOSYS do this in two ways:

(1) The C2 INFOSYS allow better collaborative and parallel planning between higher and lower echelons.

(2) The C2 INFOSYS provide a more accurate COP, allowing forces to execute faster with less detailed planning.
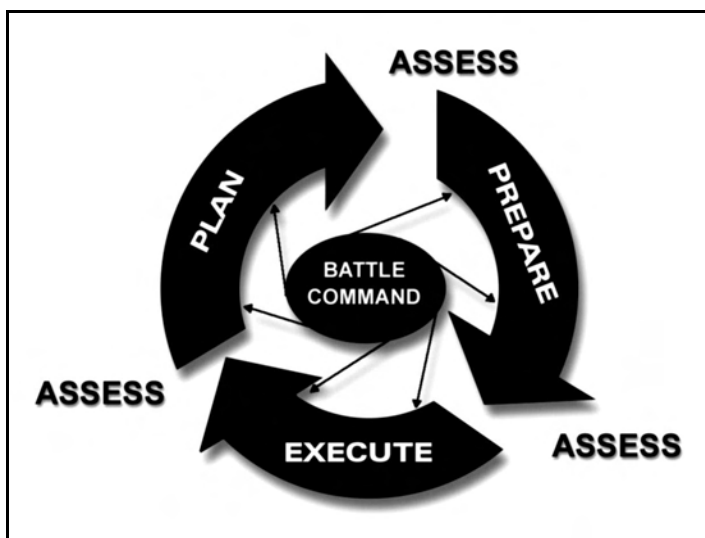
Figure 2-1. The operations process.

2-8.   DISTRIBUTION OF BATTALION COMMAND AND CONTROL
The battalion's staff sections are normally distributed among three command and control organizations: the command group, main command post, and combat trains command post. The battalion commander organizes his staff within each command post to perform essential staff functions to aid him with planning and in controlling operations. These command and control organizations are normally positioned within the battalion's AO to maintain flexibility, redundancy, survivability, and mobility (see Appendix B, Command Post Operations).

a.   **Command Group.** The command group consists of the commander, the fire support officer and or air liaison officer, and other key staff officers as directed by the commander. Its purpose is the direct command and control of the battalion. The command group is not a permanent organization; rather, it is formed anytime the battalion commander goes forward to control an operation. The command group is equipped to operate wherever the battalion commander feels it is necessary to influence operations with rapid decisions and orders. The commander determines the actual placement of personnel within the command group.

(1) The commander fights the battle from the command group and positions himself in the best location, normally near the main effort, to influence the battle without losing situational understanding. From this forward location he is better able to observe critical events, maintain communications, and sense the battle. The commander leverages the C2 INFOSYS to untether himself from the main CP so he can physically visualize his subordinates and the terrain he is to fight on without affecting his decision-making ability. The commander assumes a position of advantage where he can maintain information dominance and influence the battle without losing situational understanding.

(2) In determining his location on the battlefield, the commander considers--

- Linkage of the Army battle command system (ABCS) network to make timely decisions, including the ability to judge the progress, condition, and morale of his forces. Within technical limitations, communications systems adapt to the needs of the commander, not vice versa.
- Time and location of critical events and decision points that have the greatest impact on mission accomplishment. Ideally, the commander selects a location where he can observe the conditions that aid in making a critical decision.
- Security for the command group, including the commander's personal protection.

b. **Main Command Post.** The main CP is the battalion commander's principal command and control facility. The main CP operates from a stationary position and moves as required to maintain control of the operation. In linear operations environments, it locates behind the infantry companies CPs and, if possible, out of enemy medium artillery range. In nonlinear and or noncontiguous operations, it locates where it can best support battalion operations and is least vulnerable to potential hostile actions. This may be within the AO or from a location outside the immediate AO. The battalion XO is responsible for supervising all staff activities and functions within the main CP. The main CP provides the following functions:

- Synchronizes combat, combat support, and combat service support activities in support of the overall operation.
- Provides a focal point for the development of intelligence.
- Supports information understanding for the battalion commander and subordinates by monitoring, analyzing, and disseminating information.
- Monitors and anticipates the commander's decision points.
- Plans future operations.
- Coordinates with higher headquarters and adjacent units.
- Keeps higher headquarters informed.
- Serves as net control station for the operations and intelligence radio net and backup net control station for the command radio net.
- Provides a stable, secure planning facility.
- Produces and disseminates the commander's orders.
- Plans and controls reconnaissance and surveillance operations.

c. **Combat Trains Command Post.** The CTCP controls and coordinates the administrative and logistical support for the battalion. It consists of the battalion S1 and S4 and collocates with the BAS. The battalion S1 and S4 work closely with the BSB support operations officer to coordinate combat service support for the battalion. The CTCP serves the following functions:

- Tracks the current battle.
- Provides combat service support representation to the main CP for planning and integration.
- Forecasts and coordinates future requirements.
- Monitors main supply routes (MSRs) and controls combat service support traffic within the battalion's AO.
- Coordinates the evacuation of casualties, equipment, and enemy prisoners of war (EPWs).

Section III. PLANNING FOR OPERATIONS

Planning for operations leads to a commander making decisions during execution. At its core, decision-making is knowing "if" to decide, then "when" and "what" to decide. It includes understanding the consequences of decisions. Decisions are the means by which the commander translates his vision of the end state into action. Decision-making is both science and art. Many aspects of military operations--movement rates, fuel consumption, and weapons effects--are quantifiable and, therefore, part of the *science* of war. Other aspects--the impact of leadership, complexity of operations, and uncertainty regarding enemy intentions--belong to the *art* of war. The MDMP is an established and proven analytical process. The MDMP adapts the Army's analytical approach to problem solving. It is a tool that assists the commander and staff in developing estimates and a plan. The digitization of the Army and its battlefield operating systems has not changed the steps of the MDMP; it has enhanced them. While the formal problem-solving process described in this chapter may start with the receipt of a mission and have as its goal the production of an order, the analytical aspect of the MDMP is continuous during operations (including execution) with constant feedback and updates of information. In the end, the MDMP is the commander's planning tool to be implemented as he deems appropriate.

2-9.   INFORMATION SYSTEMS ENHANCEMENT TO DECISION-MAKING
The C2 INFOSYS enhance both the science and the art of war in two primary ways. (See Appendix D, Digital Division Supplement.)

  a. **Enhanced Battlefield Understanding.** First, INFOSYS provide commanders and staffs with a better understanding of their battlespace by--

- Collecting data more effectively.
- Processing data faster and more accurately.
- Storing data in a manner that provides instant access through distributed databases.
- Displaying data in a more usable, tailored, and current format.
- Disseminating data to the right place faster and more efficiently than analog systems.

INFOSYS include the ability to access analytical expertise and databases of Army, national, and civilian institutions and the ability to create virtual staffs. Virtual staffing, the bringing together of organic and nonorganic elements independent of locations inside or outside the area of operations, can be used to develop and update the staff database and refine courses of action and the plan. The C2 INFOSYS and information management make estimates more accurate, complete, and current than was possible with analog systems. Creating and maintaining a current, complete COP is essential to the MDMP and is the foundation for all estimates.

  b. **Enhanced Parallel and Collaborative Planning.** The second area in which these systems improve the MDMP is in parallel and collaborative planning. Parallel planning occurs when two echelons conduct their planning nearly simultaneously. Parallel planning can happen only when higher headquarters produce timely warning orders and share information with subordinate headquarters as it becomes available. Parallel planning allows each echelon to make maximum use of time available. It requires significant interaction between echelons. Collaborative planning (paragraph 2-25,

Coordination and Liaison) is the real-time interaction of commanders and staffs at two or more echelons. It is facilitated by the C2 INFOSYS that allow real-time exchange of data, voice, and video so that commanders and staffs can work together during all phases of planning.

(1) The C2 INFOSYS facilitate both parallel and collaborative planning. These systems make sharing information much easier through a COP; distributed databases; increased speed and accuracy of dissemination of orders, plans, and guidance; and improved connectivity between echelons for the sharing of information and the passing of questions and answers with greater speed.

(2) Collaborative planning must be used judiciously. While it is a powerful planning tool, it can also be a negative factor. Collaborative planning is not appropriate for all situations.

(a) 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 his staff can benefit from the input of subordinate commanders and staffs.

(b) Collaborative planning is not appropriate when the staff is working a large number of courses of action 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 is also often not appropriate during ongoing operations where extended planning sessions take commanders and staffs away from conducting current operations.

(c) As a rule of thumb, if the commander is directly involved in time-sensitive planning, some level of collaborative planning is probably needed. The commander, not the staff, must make the decision to conduct collaborative planning Only the commander can commit subordinate commanders to using their time for collaborative planning.

c. **Additional Information Processing Enhancements.** The C2 INFOSYS shorten the timelines to conduct full planning and will assist the commander with his understanding of the situation. The commander and staff must process the information available to them. Figure 2-2 illustrates the cognitive hierarchy.

(1) Processing increases the value of information from being just data to facilitating understanding of the situation. Data is organized to create databases of information. Processing takes data from the databases and adds meaning to relevant information with progressively higher levels of complex and cognitive methods that create a common operational picture.

(2) Processing also includes lower-level mechanical information management methods such as organizing, collating, plotting, and arranging data and information. However, effective processing requires analysis and evaluation (higher-level cognitive methods) so that data can become knowledge. Through its estimates, the staff creates knowledge for the commander. Processing depends primarily on well-trained and adaptive analysts to provide insight. To achieve understanding, decision-makers apply judgment to the knowledge and the staff estimates. Understanding enables informed decisions with less-than-perfect data. Understanding generates action. With SU and a mission, a commander can then visualize his battlespace and take action by issuing his commanders' guidance, intent, and selection of CCIR.
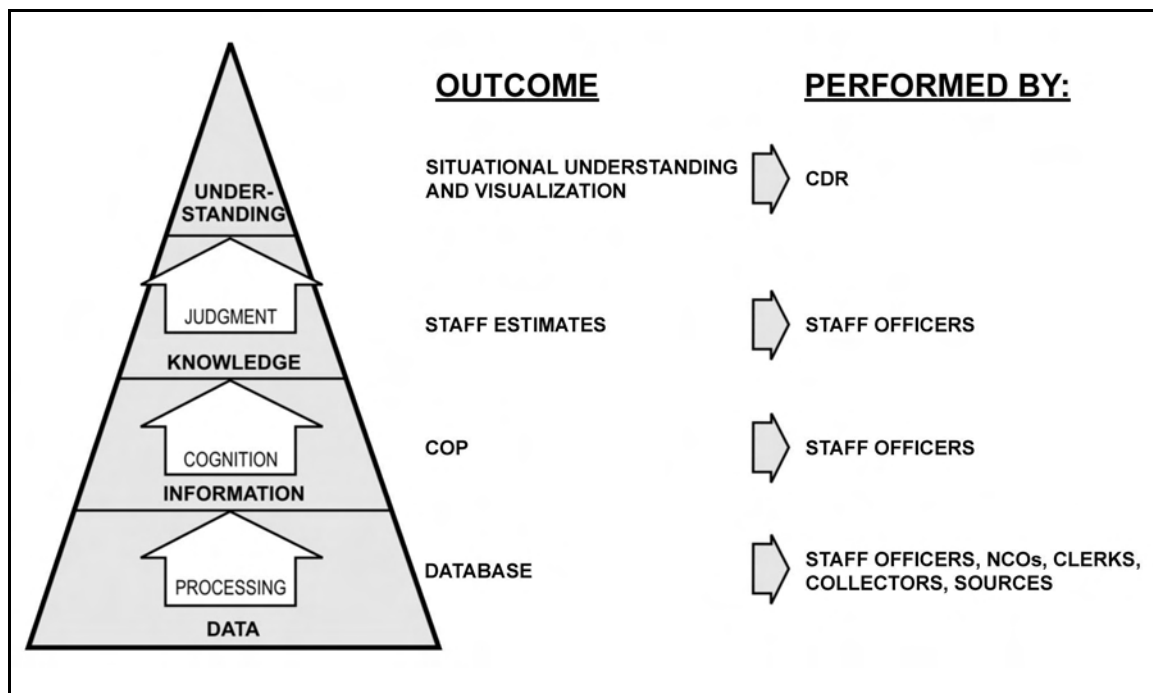
Figure 2-2. Cognitive hierarchy.

2-10. THE MILITARY DECISION-MAKING PROCESS

The complete MDMP is a detailed, deliberate, sequential, and time-consuming process used when adequate planning time and sufficient staff support are available to develop and thoroughly examine numerous friendly and enemy courses of action. Based on the commander's estimate, the MDMP can be adjusted to meet the current situation. The commander and staff typically conduct this examination when developing the commander's estimate and operation plans (OPLANs), when planning for an entirely new mission, and during extended operations. The underlying concurrent processes of intelligence preparation of the battlefield, risk assessment (see Appendix E, Risk Management and Fratricide Avoidance), targeting, force protection, and military deception planning provide the information that is used as part of the standardized planning in the MDMP. The MDMP helps the commander and his staff to examine a specific situation and, by applying thoroughness, clarity, sound judgment, logic, and professional knowledge, reach a logical decision. The MDMP is the foundation on which planning in a time-constrained environment is based. The products created during the MDMP can and should be used during subsequent planning sessions when time may not be available for a thorough reexamination but when significant parts of existing information and analysis of mission, enemy, terrain and weather, troops and support available, time available, and civil considerations (METT-TC) have not changed substantially. (See Section IV for a detailed explanation of the MDMP and the use of MDMP in a time-constrained environment.)

a. The MDMP relies on doctrine, especially the terms and symbols (graphics) consolidated in FM 101-5-1. The professional understanding of a defined common unqualified lexicon particular to the Army is essential to the MDMP. Using approved terms and symbols facilitates the rapid and consistent assessment of the situation and

creation and implementation of plans and orders by minimizing confusion over the meanings of terms and symbols used in the process.

    b. The following are advantages of using the unabbreviated MDMP:

- It analyzes and compares multiple friendly and enemy COAs in an attempt to identify the best possible friendly COA.
- It produces the greatest coordination and synchronization and minimizes the risk of overlooking a critical aspect of the operation.
- It results in a detailed operation order or operation plan.

    c. The disadvantage of using the unabbreviated MDMP is that it is a time-consuming process.

2-11. ROLES OF THE COMMANDER AND EXECUTIVE OFFICER

The commander is in charge of the military decision-making process. He decides what procedures within the MDMP to use in each situation, including whether or not to use collaborative planning. The commander's intent is the driving force behind the MDMP, which hinges on a clear articulation of the commander's visualization. The C2 INFOSYS provide the commander with an unprecedented level and quality of information that help focus his attention on the critical elements of the situation and enable him to understand better the environment in which he is operating.

    a. The commander is personally responsible for planning, preparing, and executing operations. From start to finish, the commander's personal role is central. His 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 his direct involvement is driven by the time available, his 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. When the commander is linked with his staff by the C2 INFOSYS, he is more accessible and has more tools to provide guidance and to stay involved in the process, regardless of his location within the area of operations. See paragraph 2-20, Decision-Making in a Time-Constrained Environment, for a discussion of increased commander involvement in the decision-making process.

    b. During the MDMP, the commander uses the entire staff to explore the full range of probable and likely enemy and friendly courses of action and to analyze and compare his own organization's capabilities with the enemy's. This staff effort has one objective: to integrate information collectively with sound doctrine and technical competence, which assists the commander in his decisions and ultimately leads to effective execution. Through the use of C2 INFOSYS, the commander guides not only the staff, but also subordinate commanders. He uses the C2 INFOSYS to access additional data from national or higher echelons to help in analyzing both the environment in which he is operating and the enemy.

    c. The executive officer manages, coordinates, and disciplines the staff's work and provides quality control. He must understand the commander's guidance and intent because he supervises the entire process. He ensures the staff has the information, guidance from the commander, and facilities it needs. He determines timelines for the staff, establishes briefback times and locations, enforces the information management

plan, and provides any unique instructions to guide the staff in completing the MDMP process.

d. Warning orders are used to facilitate parallel planning. By issuing guidance and participating in formal and informal briefings, the commander and XO guide the staff through the decision-making process. In a collaborative environment, the commander can extend this participation directly to subordinate commanders and staffs. Such interaction helps the staff and subordinates to resolve questions and involves all staff and subordinates in the complete process. The selected course of action and its implementing operation order are directly linked to how well both the commander and his staff accomplish each step of the MDMP.

2-12. THE ROLE OF RECONNAISSANCE AND SURVEILLANCE

The battalion commander deploys the battalion reconnaissance platoon early in the planning process to facilitate early intelligence collection. However, the reconnaissance platoon should not be deployed without first considering, as a minimum, the reconnaissance and surveillance planning factors found during mission analysis.

a. The commander and staff analyze the information collected from the reconnaissance platoon and other intelligence, surveillance, and reconnaissance assets and incorporate this information into the planning process. The commander and staff ensure reconnaissance and surveillance is continuous during planning, preparation, and execution of the mission. Data collected during reconnaissance and surveillance may result in initial plans or courses of action being modified or even discarded. The earlier the need for modifications can be identified, the easier it is to incorporate and synchronize the modifications into the plan. Further, when the plan changes, the commander must modify his reconnaissance and surveillance objective to support the new plan.

b. Reconnaissance assists significantly in developing courses of action. Conducted early in the planning process, it can help confirm or deny the commander's initial assessment (visualization). Information may also allow him to focus immediately on a specific course of action or to eliminate courses of action that the reconnaissance shows to be infeasible.

c. When conducting a reconnaissance, the commander must determine if the benefits outweigh the risks. During defensive, stability, and support operations, the reconnaissance can often be conducted with little risk. During offensive operations, reconnaissance involves more risk.

Section IV. THE MILITARY DECISION-MAKING PROCESS

The MDMP has seven steps. Each step of the MDMP builds upon the outputs from previous steps, and each step, in turn, produces its own output that drives subsequent steps (Figure 2-3, page 2-14). Errors committed early in the process affect later steps. Estimates go on continuously to provide important inputs to the MDMP. Each staff section does estimates. Estimates and database updates support the planning process as well as mission execution. This section provides a summary of the seven steps of the MDMP. (Refer to FM 101-5 for a detailed discussion of the MDMP.)
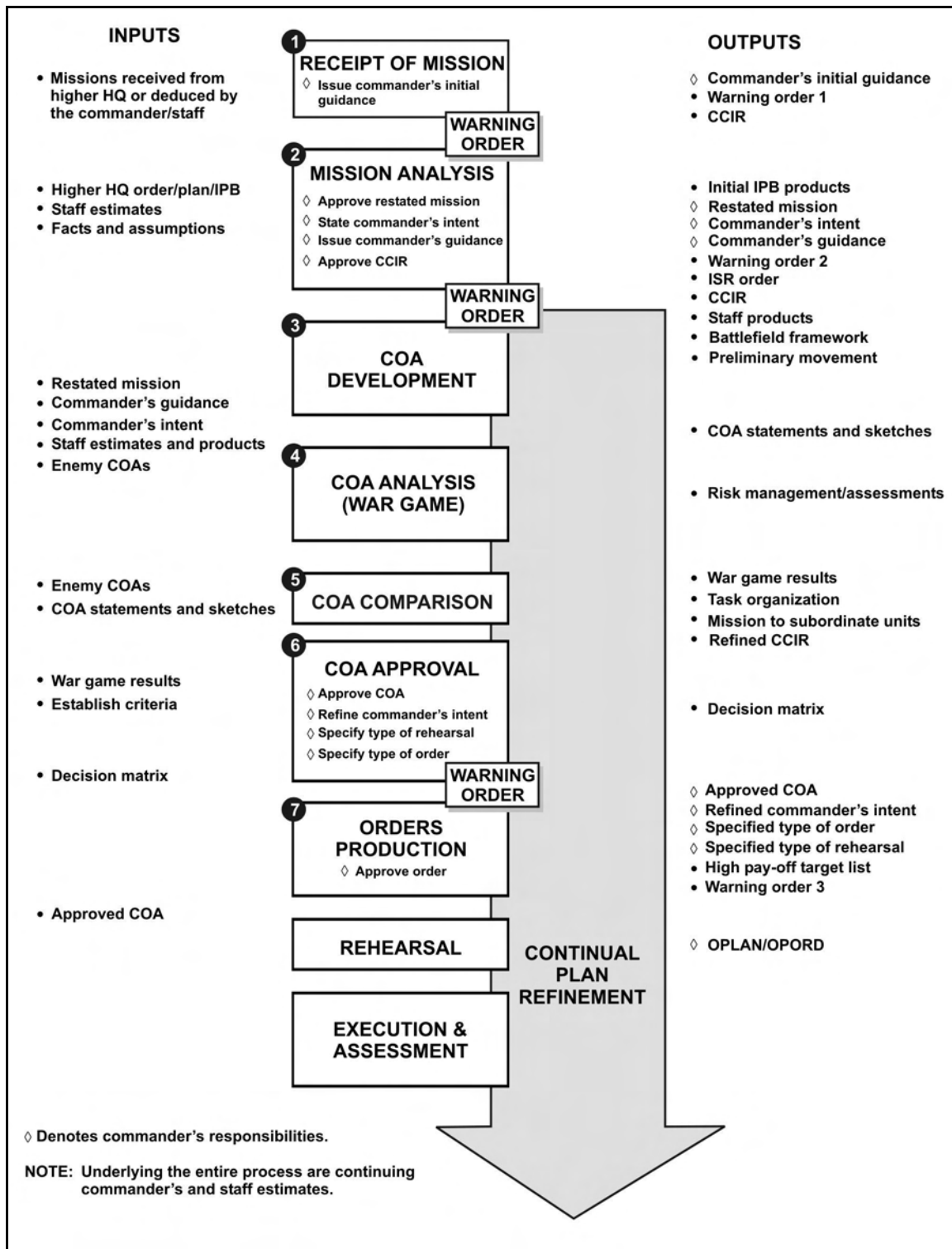
Figure 2-3. MDMP steps, staff inputs and outputs.

2-13 RECEIPT OF MISSION

The staff receives a new mission in the form of an OPORD from a higher headquarters, or the commander recognizes an opportunity that requires a significant change to the

current operation. The staff begins to collect the data and resources necessary to conduct mission analysis. The XO develops the timeline to structure the staff's efforts, and the battalion commander issues initial guidance to his staff that focuses them on developing initial CCIR, authorized movement, level of detail required in the MDMP, and initial reconnaissance requirements. The result of this step is a WARNO that alerts subordinate units to an impending mission change.

2-14. MISSION ANALYSIS

Mission analysis defines the tactical problem and begins the process of determining feasible solutions. Analysis of the higher headquarters mission is the start point that generates the intelligence preparation of the battlefield (IPB) as described in FM 2-91.3. The commander and staff then analyze the specified, implied, and essential tasks laid out in the higher headquarters' order. They review available assets, identify critical facts and assumptions, and evaluate risks, to include environmental concerns. (See Appendix E, Risk Management and Fratricide Avoidance and Appendix F, Environmental Concerns and Compliance.) Mission analysis results in the initial CCIR, an ISR plan, the battalions mission, the battalion commander's initial intent for the operation, and the battalion commander's guidance for the staff on developing COAs. These products are distributed to subordinates in the form of WARNO #2 to include orders to initiate reconnaissance operations.

2-15. COURSE OF ACTION DEVELOPMENT

The staff develops COAs for analysis and comparison. This begins with analyzing relative combat power and generating maneuver options. The staff arrays initial forces to accomplish critical tactical tasks and develops the scheme of maneuver that synchronizes the tasks using the battlefield framework. The final result is a COA statement and sketch that clearly portrays how the battalion will accomplish the mission and explains the scheme of maneuver. The COA statement and sketch serve as the basis for the COA analysis (war game).

2-16. COURSE OF ACTION ANALYSIS (WAR GAME)

The staff develops a set of standards used to evaluate each COA. The standards may be based on the principles of war, commander's guidance, doctrinal principles for the operation being conducted, or whatever measure is deemed important by the commander. The staff conducts a war game of each COA using an action, reaction, and counteraction methodology. This allows them to view the likely outcome of the battle, allocate resources, synchronize BOS, and develop control measures. The results of each war game are assessed using evaluation criteria established by the commander and recorded for comparison against other COAs.

2-17. COURSE OF ACTION COMPARISON

The staff evaluates each COA and compares it against the others to determine which COA best accomplishes the mission without undue risk. Each COA is briefed to the commander, and the staff makes its recommendation on the preferred option**.**

2-18. COURSE OF ACTION APPROVAL

The battalion commander selects a COA, modifies it as required to better meet his intent, or rejects them all and has the staff develop new ones. The commander then finalizes his intent and CCIR based on the chosen COA. He gives guidance to the staff on the type of order to produce, rehearsals to conduct, and priorities for CS and CSS assets. The staff issues WARNO #3 reflecting these changes.

2-19. ORDERS PRODUCTION

The staff finalizes the plan based on the commander's approval guidance and prepares to publish a written order, brief an oral order, transmit a digital order, or a combination thereof. The order includes graphical overlays and staff annexes as appropriate.

2-20. DECISION-MAKING IN A TIME-CONSTRAINED ENVIRONMENT

The MDMP is the foundation on which planning in a time-constrained environment is based. The products created during the MDMP can and should be used during subsequent planning sessions when time may not be available for a thorough reexamination but when significant parts of existing information and analysis of the factors of METT-TC have not changed substantially. The focus of any planning process should be to develop quickly a flexible, tactically sound, fully integrated, and fully synchronized plan that increases the likelihood of mission success with the fewest possible casualties. However, any operation may go beyond the initial plan. The most detailed staff estimates cannot anticipate every possible branch or sequel, enemy action, unexpected opportunity, or change in mission directed from higher headquarters. Fleeting opportunities or unexpected enemy actions may require a quick decision to implement a new or modified plan. The commander decides how to abbreviate the MDMP. What follows are suggested techniques and procedures that will save time. They are not exhaustive nor the only ways to save time, but they have proven useful. These techniques are not necessarily sequential in nature, nor are all of them useful in all situations. What works for a unit depends on its proficiency and the factors of METT-TC in a given situation. The commander can use these, or techniques of his own choosing, to abbreviate the process.

    a. **Training for the MDMP.** Before a unit can conduct decision-making in a time-constrained environment, it must master all of the steps in the MDMP. A unit can only shorten the MDMP if it fully understands the role of each and every 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 that can be tailored to the time available. Training on the MDMP must be stressful and replicate realistic conditions and timelines. Although the task is difficult, all staffs must be able to produce a simple, flexible, tactically sound plan in a time-constrained environment. Any METT-TC factor, but especially limited time, may make it difficult to follow the entire MDMP. An inflexible process used in all situations will not work. The MDMP is a sound and proven process that can be modified with slightly different techniques to be effective when time is limited. There is still only one process, however, and omitting steps of the MDMP is not the solution. Anticipation, organization, and prior preparation are the keys to success in a time-constrained environment.

b. **General Considerations.** The MDMP is abbreviated 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, and often the most critical, resource.

(1) There are four primary techniques to save time. The first is to increase the battalion commander's involvement, allowing him to make decisions during the process without waiting for detailed briefings after each step. The second technique is for the commander to become more prescriptive in his guidance by limiting options. This saves the staff time by focusing members on those things the commander feels are most important. The third technique, and the one that saves the most time, is for the commander to limit the number of courses of action developed and war-gamed. He can also direct only one course of action for the staff to refine if he has personally and mentally conducted the MDMP to come up with his acceptable course of action. The fourth technique is maximizing parallel planning. Although parallel planning is the norm during the MDMP, maximizing its use in a time-constrained environment is critical. In a time-constrained environment, the importance of warning orders increases as available time decreases. A verbal warning order <u>now</u>, followed by a written order later (or posted to a database), is worth more than a written order one hour from now. The same warning orders used in the MDMP should be issued when abbreviating the process. In addition to warning orders, units must share all available information with subordinates, especially IPB products, as early as possible. The C2 INFOSYS greatly increase this sharing of information and the commander's visualization through collaboration with his subordinates.

(2) While the steps used in a time-constrained environment are the same, many of them may be done mentally by the battalion 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. Unit SOPs tailor this process to the commander's preference for orders in this environment.

(3) When developing the plan, the staff may initially use the MDMP and develop branches and sequels. During execution, they may abbreviate the process. A unit may use the complete process to develop the plan, while a subordinate headquarters abbreviates the process.

(a) *Advantages of Abbreviating the MDMP.* The advantages of using the abbreviated MDMP include the following:

- It maximizes the use of available time.
- It allows subordinates more planning and preparation time.
- It focuses staff efforts on the commander's specific and directive guidance.
- It facilitates adaptation to a rapidly changing situation.
- It compensates for an inexperienced staff.

(b) *Disadvantages of Abbreviating the MDMP.* The disadvantages of using the abbreviated MDMP include the following:

- It is much more directive and limits staff flexibility and initiative.
- It does not explore all available options when developing friendly courses of action.
- It may result in only an oral OPORD or FRAGO.

- It increases the risk of overlooking a key factor or failing to uncover a significantly better option.
- It may decrease the coordination and synchronization of the plan.

(c) *Benefits of Saving Time on MDMP Steps.* The benefits of saving time on the MDMP steps include the following:

- It refines more thoroughly the commander's plan.
- It conducts a more deliberate and detailed war gaming session.
- It considers in detail potential branches and sequels.
- It focuses more on actually rehearsing and preparing the plan.

c. **The Commander's Role.** The battalion commander decides what adjustments to make to the MDMP, giving specific guidance to the staff to focus the process and save time. If the commander has access to only a small portion of the staff or none at all, he will need to rely even more on his own expertise, intuition, creativity, and understanding of the environment and the art and science of warfare. He may have to decide on his course of action, mentally war-game the outcome, and confirm his decision to the staff, all in a relatively short time. If so, his decision will be based more on his experience than on a formal integrated staff process. The commander may elect to have his staff spend most of its time developing, refining, and war-gaming his course of action rather than developing multiple courses of action.

(1) The commander should avoid changes to his guidance unless a significantly changed situation dictates major revisions. Frequent minor changes to the guidance can result in lost time as the staff makes constant minor adjustments to the plan.

(2) The commander should consult with subordinate commanders before making a decision, if possible. Subordinate commanders are closer to the fight and can more accurately portray the enemy's situation and that of their own unit. Additionally, consulting with subordinates gives them insight into the upcoming operation and allows them to maximize parallel planning. The battalion and the subordinate units can greatly enhance this concept of maximizing parallel planning by using the C2 INFOSYS.

(3) In situations where the battalion commander must decide quickly, he should contact his higher headquarters and advise them of his selected course of action, if time is available, because it may affect the branches and sequels that his superiors are planning. However, the battalion commander should not sacrifice exploiting an opportunity if he cannot contact higher headquarters.

d. **The Staff's Role.** The importance of staff estimates increases as time decreases. Decision-making in a time-constrained environment almost always takes place after a unit has entered the area of operations and has begun to execute operations. This means that the IPB, an updated COP, and some portion of the staff estimates should already exist. Detailed planning before operations provides the basis for information that the commander will need to make decisions as operations continue. Staff members must keep their estimates up-to-date so that when planning time is limited, they can provide accurate assessments quickly and move directly into course of action development. When time is short, the commander and staff use as much of the previously analyzed information and products from earlier decisions as possible. Although some of these products may change significantly, many (such as the IPB that is continuously updated) remain the same or require little change.

(1) The staff must use every opportunity to maximize parallel planning with the unit's higher headquarters. Maximizing parallel planning can save significant time, but it can also waste time if not carefully managed. As a general rule, the staff must never get ahead of the higher headquarters in the planning process. The majority of the planning time should be spent developing the foundation of the plan, such as mission analysis. The staff should not develop and analyze courses of action without specific guidance and approval from higher headquarters.

(2) Collaborative planning may be used to further speed up decision-making. Collaborative planning facilitates subordinate parallel planning and takes advantage of the subordinates' intimate knowledge of their area of operations and associated threats and opportunities. Collaborative planning among staffs is plausible; however, there will often be tension between taking a commander away from an ongoing fight and the need to involve him in collaborative planning. Only the battalion commander can determine which takes precedence and require a subordinate commander to participate in a collaborative planning session.

(3) The staff collects data and processes the data into information.

e. **Receipt of Mission.** This part of the process does not change in a time-constrained environment. However, the commander decides at this step whether or not to abbreviate the MDMP and, if so, specifies how he wants to do it.

f. **Mission Analysis.** The commander's direct involvement is essential to saving time during mission analysis. He must personally supervise and manage the mission analysis. If time is not available to conduct a detailed mission analysis, the commander, the staff, and subordinate commanders (if collaborative tools are available) perform a rapid mission analysis. In extreme circumstances, mission analysis may be a mental process conducted by the commander and key staff. This should be the exception rather than the norm.

(1) The IPB process requires constant attention. Many delays during mission analysis can be traced to poorly conducted IPB. The S2 must quickly update the IPB based on the new mission and changed situation. This is critical to focus the reconnaissance platoon and other ISR assets early to collect information that confirms adjustments to the initial plan. Event templates must be as complete as possible prior to the mission analysis briefing. Because event templates are the basis for war gaming, they must be constantly updated as new information becomes available.

(2) Staff officers conduct as formal a mission analysis briefing as time allows. However, they may be forced to brief their estimates orally, covering only information that has changed from the last staff estimate and placing the remainder of the information on a shared database. When severely time-constrained, they brief only critical information that directly affects the new mission. If the commander has been directly involved in the mission analysis, he may decide to skip the mission analysis briefing completely.

g. **Commander's Guidance.** One way to save time is in the issuance of the commander's guidance. The elements of the commander's guidance may be the same as the MDMP, but the guidance is much more detailed and directive. The commander can provide detailed information outlining what he expects in each course of action developed, including tentative task organization, decision points, and scheme of maneuver. He may also determine which enemy courses of action he wants to war-game

as well as the branches or sequels he wants incorporated in each course of action. Detailed guidance keeps the staff focused by establishing parameters within which to work. Commander's guidance must be constantly reviewed and analyzed. As the situation changes and information becomes available, the commander may need to update or alter his guidance. This type of detailed guidance limits the staff's flexibility and initiative to save time, but it allows the staff more time to synchronize the course of action during the war gaming session. Once the guidance is issued, the staff immediately sends a WARNO to subordinate units. Alternatively, if subordinate commanders and staffs are part of a collaborative process, they get this updated guidance during the collaborative session. However, the staff must still capture this guidance and publish it in a WARNO.

h. **Course of Action Development.** A significant amount of time is gained by increased commander involvement in course of action development, resulting in detailed and directive commander's guidance. The greatest savings in time for the MDMP comes from the commander directing the staff to develop only a few courses of action (or a single course of action) instead of many.

(1) The commander and selected staff (to include selected subordinate commanders and staffs, if collaborative tools are available) save additional time by conducting a hasty war game once the courses of action are developed. The hasty war game allows the commander to determine if he favors one or more courses of action out of several proposed. It develops and matures one or more courses of action prior to the detailed war gaming session. If the commander cannot be present during the hasty war gaming session, then the staff conducts a course of action backbrief to the commander after the hasty war game. From the hasty war gaming session the commander can make an early decision, allowing him to refine his course of action and make any necessary adjustments prior to the detailed war game. In extreme situations, this may be the only opportunity to conduct the war game process.

(2) The hasty war game can also be used to select a single course of action for further development. A commander's early decision to go with a single course of action allows his staff and subordinates to focus on the selected course of action instead of on multiple courses of action. It also allows the staff to concentrate on synchronizing the course of action rather than on continuing to develop it during the detailed war gaming session.

(3) When time is severely limited, the quickest process comes from the commander personally deciding to immediately begin developing one COA, with branch plans, against the enemy's most probable course of action. This decision is often intuitive and relies on the commander's experience and judgment to render a quick decision. The commander determines which staff officers are critical to assist him in this process, depending on the type of operation being planned. As a minimum he normally includes the XO, S3, S2, and ECOORD. The commander may also include subordinate commanders, if available, either in person or through collaborative tools. This team must quickly develop a flexible course of action that it believes will accomplish the mission. In this case, the commander mentally war-games one or more courses of action, selecting the first one that appears to solve the problem for the staff to refine.

(4) Limiting the number of courses of action developed carries with it the risk of overlooking a significantly better course of action. Developing only one course of action is a risky approach. It provides the staff with little flexibility to apply its creativity and to explore options.

i. **Course of Action Analysis.** The commander and staff must war-game the courses of action to ensure all elements are fully integrated and synchronized. An early decision to limit the number of courses of action to be war-gamed, or to develop only one course of action, saves the greatest amount of time in this process. When war-gaming the courses of action, it is best to do so against all feasible enemy courses of action. However, the commander can save additional time by having the staff war-game against a smaller number of enemy courses of action. At a minimum, the actions at the decisive point must be war-gamed against the enemy's most probable course of action.

(1) The commander's direct involvement saves significant time in this step by allowing the staff to focus on only the most essential aspects of the war game. The commander can supervise the war gaming session and be prepared to make decisions, provide guidance, delete unsatisfactory concepts, and assist in keeping the staff focused. If the commander is present during the war gaming of multiple courses of action, he may identify the course of action he favors. He can then discard unwanted courses of action, allocating more time to refine the one selected.

(2) The commander must always assess risk. By limiting the number of courses of action, he has increased risk to the command. He must evaluate the course of action to ensure it will not render the force incapable of anticipated operations or lower the unit's combat effectiveness beyond acceptable levels.

(3) The staff should use the box technique, focusing first on the decisive action, such as actions at the objective or the engagement area. If time permits, the staff war-games other critical events or boxes as well. The commander and staff must identify and prioritize the critical events they want analyzed. Analyzing essential tasks can identify these critical events.

(4) Staff officers save time if they specifically define and limit the evaluation criteria before they begin the war gaming session. The commander can greatly increase effectiveness here by specifying the most critical factors and their weighting to his selected course of action. Significant factors can be quantified, if possible, and limited to the four or five most important, based on the mission statement, commander's intent, and commander's guidance.

(5) The staff works to support the commander's plan. However, as the staff refines the plan, it cannot become so biased that it develops a plan that is infeasible and unsupportable. If the staff determines that it cannot support the commander's plan, a new course of action must be developed.

(6) The use of recorders is particularly important. These recorders should be trained to capture coordinating instructions, subunit tasks and purposes, and information required to synchronize the operation during the war gaming session. If this occurs, a portion of the order is written before the planning process is complete. The C2 INFOSYS greatly simplify this process as information can be entered in preformatted forms in shared databases that represent either briefing charts or actual appendixes to orders. Each staff section should have formats available to facilitate a networked production of orders.

(7) The location used for the war gaming session must be prepared and configured by the time the staff is ready to conduct the war gaming session. Charts and boards must be clean and ready for use. The blown-up terrain sketch and enemy situation templates must be prepared and present for the war gaming session. Automated briefing products must be

updated, digital terrain maps for the area of operations loaded in the appropriate C2 INFOSYS, and automated tools for war gaming must have correct data entered.

(8) When only one course of action is developed, the purpose of the course of action analysis is to verify, refine, synchronize, and integrate the commander's course of action and recommend modifications as necessary. However, the analysis should follow the detailed war gaming process as much as possible to assist the commander in visualizing the outcome and identifying potential branches and sequels. As time allows, the staff can further war-game and develop these branches and sequels.

(9) In a severely time-constrained environment, and if automated tools allow, units may combine the war gaming process with the rehearsal in a virtual environment, including both the commander and staff and subordinate commanders and staffs. A significant benefit to this technique is that it allows the subordinate commanders to control their units during the war gaming process.

j. **Course of Action Comparison.** If the commander decides to war-game only one course of action, or if he chooses one during the war gaming session, no course of action comparison is needed. If multiple courses of action have been war-gamed and the commander has not made a decision, the staff must conduct the course of action comparison. Limiting the evaluation criteria and weighting factors are the only significant shortcuts in this step.

k. **Course of Action Approval.** If the commander has observed and participated in the planning process, the decision may be rapidly apparent and the commander can make it on the spot. If the commander has not participated in the process to this point or has not made a decision, a decision briefing is required. Good course of action comparison charts and sketches assist the commander in visualizing and distinguishing between courses of action. The staff must ensure the courses of action meet the course of action criterion, *complete*. Time can also be saved by limiting the course of action briefing to only the decisive action or selected critical points. If only one course of action was developed, no decision is required unless the developed course of action becomes unsuitable, infeasible, or unacceptable. If this occurs, another course of action must be developed.

l. **Orders Production.** In a time-constrained environment, time is important and a verbal FRAGO may be issued first versus a written order. However, the staff must capture all the information in any verbal orders and warning orders and post a written order in a shared database to follow up on any previously issued orders. Once the decision is made that a verbal order is not issued, the staff immediately sends out a WARNO.

Section V. PREPARING FOR OPERATIONS

Preparing for operations includes activities conducted by the battalion before executing to improve its ability to conduct an operation. At a minimum, these activities include: plan refinement, rehearsals, reconnaissance and surveillance, coordination, inspections, and movement. Preparation occurs anytime the battalion is not executing. Ideally, preparation begins with the receipt of an order (as does planning) and ends as execution begins. Assessment during preparation monitors the progress of a unit's readiness to conduct the operation. The commander evaluates preparations against his criteria for success to determine variances and to forecast the significance of those variances for mission accomplishment.

2-21.   RECONNAISSANCE AND SURVEILLANCE
During preparation, the battalion commander answers his CCIR and improves his intelligence about the enemy and terrain through the reconnaissance platoon and other ISR assets available to him. A reconnaissance and surveillance operation is planned and executed with the same level of importance as any operation. Reconnaissance and surveillance is not a static, one-time effort that achieves a single goal and then ends. As the reconnaissance platoon and other assets gather information (answering the CCIR), the staff should modify the collection plan to account for new information requirements and to redirect efforts to collect additional information. The commander and staff must continuously review IPB products against the current situation; they redirect the reconnaissance platoon or other assets to focus on the most important unknowns remaining, emphasizing the current CCIR. The battalion commander must balance his need for information with the ability of the reconnaissance platoon to gather it, the risk to the reconnaissance platoon during collection, the ability to sustain the reconnaissance platoon over time and distance, the requirement to have the reconnaissance platoon available at critical times and places to support the decisive action, and the availability (time, type, and quantity) of other ISR assets.

2-22.   SECURITY
Security during preparation prevents surprise and reduces uncertainty through local security and operational security. Local security and OPSEC prevent the enemy from discovering the battalion's plan and protect the force from unforeseen enemy actions. The goal in conducting security operations is to prevent the enemy from gathering essential elements of friendly information (EEFI). Security is a dynamic effort that anticipates and prevents enemy intelligence-gathering efforts.

2-23.   FORCE PROTECTION
Force protection includes a combination of active and passive measures to deter, defeat, or mitigate enemy actions. It is not a discrete mission assigned to a single subordinate unit, but a continuous effort executed by the battalion and all of its subordinate units regardless of their mission, location, or threat. The commander and staff develop and initiate actions during planning but conduct the actions during preparation and execution.

2-24.   PLAN REVISION AND REFINEMENT
The battalion commander adjusts plans based on new information. The enemy is also acting while the battalion is preparing for an upcoming operation. As assumptions prove true or false, as the reconnaissance platoon (or other ISR assets) confirms or denies enemy actions and dispositions, and as the status of subordinate units changes, the battalion commander determines whether the new information invalidates the plan, requires him to adjust the plan, or validates his plan.

2-25.   COORDINATION AND LIAISON
During preparation, the battalion conducts necessary coordination with higher, lower, adjacent, and supporting units. This may include sending and receiving liaison teams. Coordination includes the establishment of all communication links to guarantee continuous contact during execution. This is especially critical when the battalion is a

subordinate element of an organization that lacks the C2 INFOSYS and when units who lack the same INFOSYS are subordinated to the battalion. Coordination is essential for synchronization during execution.

a. **Coordination.** Exchanging information is critical to successful coordination. Coordination may be both internal and external. Internal coordination occurs within the battalion staff. External coordination involves subordinate and supporting units or staffs and higher headquarters. External coordination is sometimes referred to as "collaborative planning." Coordination has four objectives:

- It ensures an understanding of the commander's intent and an understanding of subordinate and supporting unit roles.
- It ensures that all affected and interested personnel have been consulted or informed so they may respond as desired or adjust their plans and actions.
- It avoids conflict and duplication of effort among subordinate units, reducing the risk of fratricide and the expenditure of resources.
- It ensures that the commander and staff consider all relevant factors and effectively employ all available assets.

b. **Liaison.** Liaison provides a means of direct communications between headquarters. Liaison may begin with planning and continue throughout preparation and execution.

2-26. REHEARSALS

The intent of a rehearsal is to practice actions to improve performance during execution. The extent of rehearsals depends on the time available. Rehearsals allow participants to become familiar with the plan and to translate the plan into a visual impression that orients them to the environment and other units when executing the plan. Rehearsals imprint a mental picture of the sequence of key actions within the upcoming operation. Rehearsals also provide a forum for coordination among subordinate and supporting leaders. Rehearsals emphasize times, locations, and solutions for coordinating actions to achieve synchronization at critical points during execution.

Section VI. EXECUTION

Execution is putting a plan into action by applying combat power to accomplish the mission using SU to assess progress and make decisions. Inherent in the dynamic nature of execution is deciding to execute planned actions as well as deciding to adjust the plan based on changes in the situation. Combining the art of command and the science of control is most evident during execution. The commander exercises judgment and initiative continuously. He assesses the situation and makes decisions, often with incomplete, conflicting, and vague information. During execution, the commander uses his visualization, continuously updated with a current COP, to assess the progress of operations. The commander's current SU determines what CCIR needs to be updated against the COP.

2-27. THE COMMAND AND CONTROL SYSTEM DURING EXECUTION

During execution, the command and control system (paragraph 2-5) must continuously manage relevant information. It must compare the COP against the commander's intent, identify variances from the plan, and recommend ways for the commander to correct or

exploit the variances. Finally, the command and control system must direct actions to counter unforeseen enemy or friendly actions and to exploit opportunities.

2-28. ASSESSMENT DURING EXECUTION

During execution, assessing the operation is an essential, continuing task. It is a deliberate comparison of forecast outcomes to actual events, using the criteria of success, to judge operational success at any point during the operation. This process identifies the magnitude and significance of variances in performance of those indicators from expectations and determines the need for adjustments. Commanders and staffs assess the probable outcome of the ongoing operation to determine whether changes in the current operation are necessary to achieve the mission, react to unexpected threats, or take advantage of opportunity. Intelligence uses situation development to contribute to assessment during execution. Commanders and staffs also assess the probable outcome of the current operation in terms of its impact on potential future operations in order to develop concepts for these operations early. Assessment supports the commander in making both execution and adjustment decisions.

2-29. ASSESSMENT

During execution, the commander uses situational understanding to assess the ongoing operation rather than to decide among courses of action. The most important question when assessing the conduct of an operation is whether the current plan is still valid. Assessment supports the commander in making both execution and adjustment decisions. As the commander develops his assessment, he describes his conclusions to his staff and subordinates to guide them in supporting him. After he makes a decision, the staff readjusts the plan to include adjustments to the criteria of success required by his decisions and the focus returns to executing and assessing.

a. **Monitoring the Operation.** The commander and staff monitor the ongoing operation to determine if it is progressing satisfactorily according to the current plan (including any FRAGOs that may have modified it). The staff monitors the various facts and assumptions that were the basis of the plan to ensure these remain valid or to see a need for new facts and assumptions that might affect current and future operations. Monitoring uses relevant information (RI) to develop a clear understanding of the battalion's current state in relation to the enemy and the environment. The staff processes this RI and presents it to the commander as a clear operational picture.

b. **Evaluating the Criteria for Success.** The commander and staff continue to evaluate the commander's criteria for success during execution. The staff must continually update staff estimates and sources of assessment to supplement and support the commander's visualization. Assessing success results in one of two outcomes.

(1) The operation is progressing satisfactorily and observed variances between expectations and the current situation are minor or within acceptable levels. Progress meets the commander's intent, and the concept of operations is still relevant to the situation. The result is that the operation continues as planned and leads to decisions foreseen by the plan.

(2) The operation as a whole is not proceeding according to expectations. The observed variances endanger the success of the operation. This assessment can result from unforeseen enemy successes or friendly failures, and it also can result if

performance of critical indicators is much better than expected, presenting a significant opportunity to the battalion. The commander makes a decision to eliminate the threat or to take advantage of the unforeseen opportunity

2-30. DECISIONS

The battalion commander should not hesitate to modify his plan if it is necessary to minimize casualties, to accomplish the mission, or to achieve greater success. Adhering to a plan when the situation has changed can waste resources and opportunities. The flexibility to adapt to changing situations is the hallmark of a good commander. The battalion must train to take advantage of unforeseen opportunities and to leverage the C2 INFOSYS to disseminate decisions quickly. The commander makes two basic types of decisions during execution: execution decisions and adjustment decisions.

   a. **Execution Decisions.** Execution decisions implement anticipated actions and are directed by the order. The most basic form of this type of decision is applying combat power or conducting activities as outlined within the plan or within the commander's intent. Executing branches and sequels are execution decisions.

   (1) *Critical Routine Functions.* The battalion must accomplish routine tasks during execution. Although these tasks occur routinely, the commander must consciously consider them during execution. His failure to consider these routine tasks can waste resources, squander opportunities, or lead to mission failure.

   (a) *Conduct Continuous Reconnaissance and Surveillance.* Reconnaissance and surveillance is a continuous process that feeds the commander's SU and affects his decision-making. The battalion commander should never keep the reconnaissance platoon and other ISR assets in reserve. During execution, these assets should be focused on answering the CCIR and looking for opportunities for the battalion to exploit.

   (b) *Adjust IR and CCIR Based on the Situation.* The commander and staff must continue to review the CCIR during execution. The staff continues to analyze IR against the mission and updated commander's intent to identify those indicators that may directly affect the commander's decision-making. As CCIR are answered or the situation changes, the commander must develop new CCIR. The staff must disseminate these new CCIR to subordinate and supporting units. The staff must develop a new collection plan and allocate assets (reconnaissance platoon, other ISR assets, or company teams) to answer the new CCIR.

   (c) *Track the Battle.* Battle tracking is monitoring designated elements of the COP that are tied to the commander's criteria for success. Battle tracking requires special attention from all staff officers. The XO and S3 must continue to monitor the progress of movement and recommend changes as required. The staff cannot simply update maps and charts. They must analyze the information and be prepared to provide their assessment to the commander. This provides the commander the information he needs to gain an understanding of the situation.

   (d) *Refine the Targeting Process.* The commander's decisions provide the basis for targeting decisions made in support of the continuing operation. The commander remains alert to situations when he must give or modify targeting guidance to the staff. His guidance synchronizes the targeting process to continue achieving effects on the enemy.

   (e) *Manage the Movement and Positioning of CS and CSS Units.* Massing the effects of combat power at a decisive point requires not only the maneuver of combat forces but

also the movement of CS and CSS forces. Using CS and CSS forces to shape must not interfere with the movement of combat forces to the decisive point. In the heat of executing a mission, it is easy to lose sight of the time required to reposition CS and CSS forces. The commander and staff must ensure that the movement of combat units does not outpace the movement of CS and CSS units. The commander's visualization should include the time required to move all battalion assets to get to the right place at the right time.

(f) *Continue Terrain Management.* The battalion must carefully track the location and land utilization of all units within the area of operations. Deconflicting land use among units in the battalion's area of operations is difficult but necessary during execution. The staff must ensure that adequate space, including the use of routes, is available at the right time to support critical activities. The commander's visualization should determine what space is required for what force at what time to support the decisive action.

(2) **Planned Actions.** The commander or staff must recognize that a particular event or action directed by the OPORD has met preconditions (events or triggers) for execution and direct the execution of this planned action. Modifying planned actions to fit the current situation is still considered a planned action. Branches and sequels to an order (or plan) are planned actions.

b. **Adjustment Decisions.** Adjustment decisions modify the plan to respond to unanticipated threats or opportunities. Typically, a commander's adjustment decision requires further synchronization across the BOS. The commander describes his visualization of the adjustment through additional guidance. He must pay particular attention to the effects of adjustment decisions on targeting and give sufficient guidance to support the targeting process. Adjustments take one of three forms: reallocation of resources, changing the concept, and changing the mission.

(1) **Reallocation of Resources.** The simplest adjustment is to reallocate resources. The commander can allocate additional combat support or reinforce a combat unit with additional combat forces. The commander should reinforce success if it creates the opportunity for more success.

(2) **Changing the Concept.** Changing the concept of the operation adjusts the way in which the operation is conducted without changing the mission. Most often, this modifies the decisive action to exploit an unforeseen opportunity or to counter an unexpected threat. The commander's most important adjustment decision is the commitment of the reserve. Employing the reserve successfully requires anticipation and visualization. These allow the commander to task-organize, position, and move the reserve force in a manner that minimizes any loss of momentum with its commitment.

(3) **Changing the Mission.** If the commander sees during execution that he cannot resolve a problem to accomplish his mission by reallocating resources or changing the concept, he may opt to change his mission. He should only do this as a last resort, and the change to the mission must still accomplish the higher commander's intent. Synchronizing the battalion's new actions is the greatest problem this type of decision presents.

(4) **Adjustment Decision Methods.** When making adjustments to a unique or complex situation, the MDMP is preferred if time is available. When there is not sufficient time for the MDMP or during fast-paced combat operations, decision-making

may become more intuitive for the commander. Intuitive (or recognition) decision-making emphasizes the commander's knowledge, judgment, experience, education, intellect, boldness, perception, and character.

(a) *Using the MDMP.* The commander may opt to use an abbreviated MDMP, focusing the staff on one course of action. This method also uses intuitive decision-making. It begins with the commander using his current SU to visualize and mentally formulate a single course of action that solves the unforeseen problem. He directs the staff to analyze and refine the COA. The commander resolves any inadequacies the staff detects through its analysis by revising or modifying the given course of action rather than developing a new one.

(b) *Recognition Decisions.* This type of decision-making requires the greatest involvement of the commander and the least involvement from the staff. It relies on the commander's experience in the use of intuitive decision-making to be successful. The commander visualizes the solution to a problem immediately, with little or no analysis of alternatives or outcomes. Recognition decisions do not necessarily follow the MDMP; however, the commander's decisions are well grounded in an understanding of the enemy and terrain, the updated commander's estimate and staff estimates, and the OPORD that began the operation. This approach focuses on situational understanding, assessing significant variances, and selecting or refining an acceptable decision mentally instead of comparing multiple options to select the optimal answer.

2-31. DIRECTING ACTION

Any decision to change a plan requires a change in the application of combat power and a resynchronization to mass effects on the enemy. The battalion commander must direct action that applies combat power to effect execution or adjustment decisions. The FRAGO is the normal means to direct changes during execution. The C2 INFOSYS give the command and control system the capability to automate orders (and graphics) production and dissemination, especially for execution decisions that use data and information stored on a shared database.

a. **Synchronize Operations.** After the battalion commander makes a decision during execution, his staff must resynchronize the ongoing operation to maximize the application of combat power against the enemy. This resynchronization includes informing subordinates, integrating assets, incorporating the decision into the targeting process, and deconflicting subordinate actions. The staff uses the C2 INFOSYS to reduce duplication, confusion, and problems that may occur from the change. Resynchronization should be used only to the extent required to ensure mission accomplishment. Excessive synchronization may waste valuable resources and opportunities.

b. **Maintain Continuity.** Continuity (making as few changes as necessary) allows for a greater chance of successful execution. Continuity does not inhibit flexibility; the battalion commander and his staff should only make the changes to current operations necessary to solve a problem. Maintaining the current plan as much as possible allows subordinates to focus on only a few discrete changes. The commander and staff should avoid changes that may preclude options for future operations.

CHAPTER 3
INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE OPERATIONS

Intelligence, surveillance, and reconnaissance, a tactical enabling operation, is a broad category of activities designed to support the battalion's intelligence development, planning, and decision-making. Intelligence, the product gained by analyzing combat information for its relevance to the unit's mission, has always been critical to successfully accomplishing the mission. Reconnaissance is a combined-arms maneuver operation that employs the battalion's reconnaissance assets to observe named areas of interest and target areas of interest, by visual or other detection methods, in order to collect combat information. Surveillance involves the systematic observation of a particular named area of interest by visual, electronic, photographic, or other means. The combat information collected by the battalion reconnaissance platoon and other assets is analyzed and evaluated by different echelons in order to become intelligence. The goal of ISR operations is to answer the battalion commander's critical intelligence requirements and other information requirements to enable timely and effective decision-making. The SBCT infantry battalion reconnaissance platoon is the eyes and ears of the battalion commander and provides him with an organic reconnaissance capability.

Section I. OVERVIEW OF THE ISR FUNCTION

The Army has conducted reconnaissance and surveillance tasks since its inception. The production of intelligence--the product gained by analyzing combat information for its relevance to the unit's mission--has always been critical to successfully accomplishing the mission. In today's Army, information is a critical element of combat power. The speed, reliability, and availability of combat information have changed considerably from the methods of the past, and they continue to change.

3-1.   DEFINITIONS

ISR is the term presently applied to a combined arms enabling operation that combines what was previously described as reconnaissance and surveillance (a maneuver task) with the production and dissemination of intelligence (previously depicted as a staff task). ISR is a continuous, recursive operation focused on the collection of relevant information that is analyzed to create intelligence to inform the commander's visualization and support the operational cycle. The following definition of ISR is extracted from FM 3-0:

- *Intelligence* **is (1) the product resulting from the collection, processing, integration, analysis, evaluation, and interpretation of available information concerning foreign countries or areas; (2) information and knowledge about an adversary obtained through observation, investigation, analysis, or understanding.**

- *Surveillance* **is the systematic observation of aerospace, surface or subsurface areas, places, persons, or things, by visual, aural, electronic, photographic or other means.**
- *Reconnaissance* **is a mission undertaken to obtain by visual observation or other detection methods, information about the activities and resources of an enemy or potential enemy, or to secure data concerning the meteorological, hydrographic, or geographic characteristics of a particular area.**

3-2.   FUNDAMENTALS
Commanders integrate ISR missions into a single plan that capitalizes on the different capabilities of each element and other information gathering assets. They synchronize reconnaissance and surveillance missions that employ maneuver units with both the ISR plan and scheme of maneuver. The battalion uses intelligence products developed at higher echelons to identify gaps in the intelligence process. The battalion conducts reconnaissance and surveillance operations to fill the battalion commanders CCIR and to collect information based upon the information requirements defined by the SBCT commander. Successful battalion reconnaissance and surveillance depend on the following battalion-level fundamentals:

- Initiate reconnaissance and surveillance early and conduct them continuously.
- Initiate appropriate reconnaissance and surveillance forward.
- Focus reconnaissance on CCIR and decision points (DPs).
- Integrate battalion reconnaissance with cavalry squadron (RSTA) reconnaissance and surveillance assets.
- Integrate the staff in reconnaissance and surveillance planning.
- Maximize reconnaissance and surveillance assets.
- Report, analyze, and disseminate information rapidly and accurately.

   a. **Conduct Reconnaissance Continuously and Early.** Reconnaissance, surveillance, and security are continuous processes that should be conducted 24 hours a day. For security and surveillance missions, the reconnaissance platoon should be augmented with elements from maneuver companies. The battalion staff should also make full use of broadcast dissemination from the SBCT to answer PIR. The cavalry squadron (RSTA), tactical UAVs, and the joint surveillance target attack radar system (JSTARS) common ground station (CGS) can provide information to the battalion staff to help answer the commander's CCIR.

   b. **Focus Reconnaissance and Surveillance on CCIR and Decision Points.** The PIR derived from the commander's critical information requirements identify the information about the enemy needed by the commander to support his battlefield visualization and to make critical decisions. PIR help the commander filter information available to him by defining what is important to mission accomplishment. The commander and the staff use PIR to focus collection efforts and avoid wasting reconnaissance resources. With the limited number of reconnaissance and surveillance assets available at the battalion level, it is vital that the reconnaissance and surveillance effort be focused. In addition to the battalion's PIR, there will also be PIR from the SBCT and higher that will influence the focus of battalion reconnaissance and surveillance efforts. Focusing the reconnaissance and surveillance effort ensures that the commander's

PIR and IR are answered and assets are not wasted looking for the wrong information. The reconnaissance and surveillance plan should focus on the collection of information required to support the ground maneuver plan and provide observation of the decision points on the battlefield.

c. **Initiate Appropriate Reconnaissance and Surveillance Forward.** Reconnaissance and surveillance assets are normally not held in reserve. Maximum reconnaissance force forward has always been stressed. In the contemporary operation environment the fluid, non-linear, and noncontiguous nature of operations requires that reconnaissance and surveillance be continuous throughout the area of operations. In some situations the critical reconnaissance objectives may not be forward of the maneuver forces. Reconnaissance platoons of certain battalions may also be used to relieve elements of the cavalry squadron (RSTA) or other reconnaissance platoons during protracted counterreconnaissance or security operations.

d. **Integrate the Staff in Reconnaissance and Surveillance Planning.** The S3 and S2 rely upon the entire staff to assist in the planning and execution of the battalion ISR plan by providing:

- A combined arms focus to the ISR plan.
- Subject matter expertise in respective battlefield operating systems.
- Augmentation to the reconnaissance platoon (engineers, artillery observers).
- Combat support and combat service support.
- Communications and connectivity planning.
- Information requirement submissions.

e. **Maximize Reconnaissance and Surveillance Assets.** The battalion must maximize the capabilities of its limited reconnaissance and surveillance assets. For the battalion to conduct its operations, collection requirements should specify exactly what needs to be collected and where and when it needs to be collected and reported. Close coordination and integration with the SBCT staff is required to ensure that SBCT and battalion assets are not being double tasked to find the same information. The S3 must also ensure that artillery observers are integrated into the effort.

f. **Report, Process, and Disseminate Information Rapidly and Accurately.** The C2 INFOSYS within the battalion enhance both the accuracy of the intelligence collected and the timeliness with which it can be processed and disseminated. Once data or information arrives at the S2, it is processed and disseminated to users (such as the battalion commander, key staff officers, and the FSE) through the C2 INFOSYS. Combat information goes directly (unprocessed) to the commander for his consideration. In order to conduct reconnaissance and surveillance continuously, the battalion supplements its organic reconnaissance and surveillance assets with intelligence from the SBCT and additional maneuver, fires and effects, or force protection assets. These assets provide the battalion with a variety of options to draw upon, each with its own capabilities. Table 3-1, page 3-4, shows the ISR collection assets that are generally direct support to an SBCT.

Asset	Planning Range	Function	Interoperability
IREMBASS	Detection Range: Personnel 3-50 m Wheeled 15-250 m Tracked 25-350 m	Detects moving targets: personnel, wheeled & tracked vehicles; sensors: seismic/acoustic/magnetic/ infrared	ASAS-RWS
CGS	300 Km	Receiver/Preprocessor; primary gateway for BDE	G2 /ASAS, ASAS-RWS AQF/ JSTARS, GRCS, A2C2s, UAV GBS/BADD
CI Teams and Interrogators	N/A	Question sources to obtain information to satisfy intelligence requirements	G2/S2, ASAS-RWS
Prophet	300 Km	Controls and receives ESM data from Prophet land and air systems.	ASAS-RWS, FBCB2
Sentinel	40 Km	Provides search and track functions against fixed and rotary wing aircraft.	FAADC3I, Linebacker, Avenger
Q-36 RADAR	Arty, Mortars 12km Rockets 24 Km	Mortar and artillery locating radar, optimized for short-range high angle weapons.	AFATDS, FBCB2
Q-37 RADAR	Arty/Rocket 30/50 Km	Long range/low angle weapons	AFTDS/FBCB2

Table 3-1. ISR collection assets.

Section II. ISR AND THE DECISION-MAKING PROCESS

The military decision-making process revolves around an established, proven analytical process. Commanders and staffs use the decision-making process to select COAs and develop an OPLAN, OPORD, or FRAGO. It is a dynamic, continuous process that allows the commander and his staff to examine the battlefield and reach logical decisions. With digitization, staffs at different echelons can now conduct collaborative planning. Collaborative planning dramatically reduces the amount of time required to conduct the MDMP process and aids in publishing the reconnaissance and surveillance matrix and annex/operations order early. For example, the battalion S2 can now view enemy situation templates from the SBCT as soon as they are completed. Additionally, once the battalion reconnaissance and surveillance assets are deployed, changes in the plan can be digitally transmitted to the reconnaissance platoon leader or sergeant. (See also Chapter 2 on Battle Command and specific considerations for offense and defense planning in Chapters 4 and 5.)

3-3. INTELLIGENCE PREPARATION OF THE BATTLEFIELD

IPB is the cornerstone of the decision-making process and forms the basis for developing intelligence requirements, named areas of interest, the reconnaissance and surveillance matrix, and the ISR annex/plan. IR, PIR, and NAIs form the basis for the reconnaissance

plan. PIR and IR tell the reconnaissance platoon what information is required for the successful completion of the battalion mission. NAIs tell the reconnaissance platoon where the information may be found on the battlefield. PIR are further defined as specific information requests (SIR) and specific orders or requests (SOR) on the reconnaissance and surveillance tasking matrix. SIR and SOR further define the commander's PIR for the reconnaissance platoon by telling them what to look for on the ground in terms of unique vehicles, formations, key signatures, and indicators.

a. **High Pay-off Targets.** The high pay-off target list is developed during staff planning and war gaming. The identification and attack of HPTs requires the establishment of target areas of interest and the tasking of acquisition assets to detect, engage, and provide battle damage assessment (BDA). TAIs and the HPT list add target acquisition to the reconnaissance and surveillance mission. In all instances, target areas of interest and named areas of interest are limited to the same location. Battalion reconnaissance elements should plan to accomplish target acquisition simultaneously with reconnaissance and surveillance. Along with company fire support teams, reconnaissance platoons are the primary target acquisition assets available to the battalion. The battalion staff must monitor the conduct of the reconnaissance and surveillance operation in order to ensure that there are no deviations from the ISR and fire support plan. The S3 and S2 must ensure that the engagement of high pay-off targets is synchronized to the reconnaissance and surveillance operation. This provides for the most effective use of the battalion's reconnaissance platoon. When the battalion reconnaissance platoon engages targets with indirect fire, the enemy will realize they are under observation. This fact must be considered because it will trigger an aggressive counterreconnaissance effort by the enemy to eliminate the observer.

b. **Time.** Though aided by C2 INFOSYS, the battalion staff has the least amount of time to prepare detailed plans and orders. The S2 has the greatest amount of work to do during the mission analysis portion of the MDMP. Much of this work, such as the examination of the battlefield environment, the terrain, and weather, can be done before the receipt of IPB products from the SBCT. Other staff sections, such as the engineers, air defense platoon leader, and fire support officer, provide subject matter expertise in their battlefield functional areas to help the S2 in preparing his mission analysis products.

c. **SBCT IPB Products.** Once IPB products are received from the SBCT, the S2 will refine the enemy situation template two levels down to show enemy platoons. Many commanders may demand that the S2 show individual positions and vehicles on the situation template as well. At the end of mission analysis, the S2 will have the following products completed:

- Modified combined obstacle overlay.
- Avenue of approach overlay.
- Situation template for enemy reconnaissance, infiltration routes, and objectives.
- Situation templates for up to three enemy courses of action.
- Event template with NAIs and enemy timelines.
- High value target (HVT) and HPT list.
- An initial reconnaissance and surveillance overlay and annex/order.
- An initial reconnaissance and surveillance tasking matrix.

(1) The battalion will receive the initial SBCT ISR plan and tasking matrix prior to the SBCT's issuance of WARNO 2. Intelligence acquisition tasks that the battalion must accomplish will be located in Annex B of the OPORD. The staff must analyze the ISR plan from the SBCT to ensure that there is no unnecessary duplication of effort or gaps in coverage. SBCT acquisition tasks need to be incorporated into the battalion plan. After mission analysis, the staff will continue to refine these products and make changes based upon new intelligence, war gaming, and the commander's guidance. After completing the initial battalion reconnaissance and surveillance plan, the S3 will forward a copy to the SBCT so that the staff can integrate it into the SBCT ISR plan. The S3 gives the reconnaissance platoon their mission and can task attached and maneuver units to augment the reconnaissance platoon. With the limited reconnaissance and surveillance assets and time available to the battalion, the S3 must ensure that the reconnaissance platoon is not over-tasked with too many intelligence and target acquisition tasks or NAIs.

(2) Developing and publishing the reconnaissance and surveillance matrix and ISR order early in the MDMP process is critical to the success of the reconnaissance and surveillance effort and subsequently to the battalion mission. The benefit of beginning reconnaissance and surveillance early is that the information gained can be used to create maneuver plans that exploit enemy weaknesses. The reconnaissance and surveillance plan must remain a living document. Changes driven by new intelligence, staff war gaming, and new courses of action create new PIR, IR, NAIs, and TAIs that may invalidate or supercede older ones. New NAIs and intelligence acquisition tasks will be sent to the reconnaissance platoon digitally or by FM voice.

3-4. THE RECONNAISSANCE AND SURVEILLANCE MATRIX AND ORDER

The reconnaissance and surveillance tasking matrix, overlay, annex, and order are used to provide detailed instructions for each reconnaissance and surveillance asset.

a. In the battalion, maneuver units are also tasked to find and report combat information. Figure 3-1 shows an example of a reconnaissance and surveillance tasking matrix. The first column shows the priority of each mission and depicts which ones are the commander's CCIR. The next column provides the asset with the NAI number and grid coordinate. The start/stop column informs the reconnaissance and surveillance asset the time when the NAI should be observed. The SIR column explains to the reconnaissance and surveillance asset exactly what it is looking for (target). The next set of columns lists the actual assets tasked to conduct each mission. An "X" placed under each unit identifies the tasking. The coordination column tells which units to coordinate with for the mission. The last column provides the unit with reporting requirements.

DTG: _____ MISSION: _____ RECONNAISSANCE AND SURVEILLANCE MATRIX													
PRIORITY	NAI	START STOP	SIR/ INSTRUCTION	RECON	CO A	CO B	CO C	MORTAR	HHC	SNIPERS	FIST	COORDINATION	REMARKS

Figure 3-1. Sample reconnaissance and surveillance tasking matrix.

b. The reconnaissance and surveillance overlay depicts the reconnaissance and surveillance plan in graphic form. The purpose of the reconnaissance and surveillance overlay is to show where the battalion reconnaissance platoon and other tasked reconnaissance and surveillance assets or units are operating. There are two parts to the reconnaissance and surveillance overlay. The first part is the graphic display of deployed or planned deployment of RSTA assets. The second part is the marginal data consisting of the legend, administrative data, specific instructions to each asset, and the distribution list. The reconnaissance and surveillance overlay, at a minimum, should contain:

- Friendly boundaries.
- Limits of responsibilities.
- Limits of advance/limits of reconnaissance (LOA/LOR).
- Named areas of interest/target areas of interest.
- No fire areas (NFAs).
- Restricted fire lines (RFLs).
- Current and planned families of scatterable mines (FASCAMs).
- Start points, release points, and checkpoints.
- Infiltration routes, exfiltration routes, and resupply routes.
- Known friendly and enemy obstacles.
- Graphics depicting zone, area, or route reconnaissance.
- Primary, alternate, and supplementary positions.
- Ambulance exchange points (AXP) and logistics resupply points.
- Phase lines, passage points, contact points, and boundaries.
- Line of departure/line of contact.
- Retransmission (Retrans) location.

c. The initial ISR annex should contain the following information.

- The area of operations for reconnaissance.
- Mission statement.
- Task organization.
- PIR/IR/SIR/SOR.
- Line of departure/line of contact.
- Initial named areas of interest.

- Routes to AO and passage of line instructions.
- Communications, digital architecture, and logistics support.
- Fire support measures.
- Medical evacuation plan.
- Fratricide avoidance measures.

d. The OPORD will include the overall reconnaissance objective and the reconnaissance and surveillance plan with tasks and purposes. The OPORD details how reconnaissance and surveillance assets will operate in relation to the rest of the maneuver force and how the reconnaissance and surveillance elements will get to their assigned areas. It includes requirements for specific reconnaissance and surveillance assets. Each special staff officer and battlefield functional area representative will detail his scheme of support for the reconnaissance and surveillance plan. (The complete reconnaissance and surveillance OPORD format is detailed in FM 101-5.) The reconnaissance and surveillance OPORD is briefed to the commander at the end of the mission analysis brief and then issued to the battalion commander, reconnaissance platoon leader, and platoon sergeant. Ideally, reconnaissance and surveillance operations will commence 18 to 36 hours prior to the battalion offensive operation or defend-no-later-than time.

e. Reconnaissance and surveillance operations must be supported by indirect fires; this requires the development of a fire support plan. Positioning and ammunition requirements of the battalion fire support plan must be considered and included in the plan. The battalion reconnaissance platoon will also need to know the general scheme of maneuver for the cavalry squadron (RSTA) and adjacent unit reconnaissance and surveillance assets.

3-5.   RESPONSIBILITIES

The battalion commander is responsible for the planning and execution of the reconnaissance and surveillance operation. He is an integral member of the planning team and must provide the staff clear and concise guidance. His involvement in the planning process is critical, and he must provide the staff with his CCIR early in the process. He must clearly articulate to the staff and XO their responsibilities in the planning and execution process. These responsibilities are discussed in the following paragraphs.

a. **Executive Officer.** The XO is responsible for staff synchronization during reconnaissance and surveillance planning. He helps direct execution of the reconnaissance and surveillance effort along with the S3 and S2 and the battalion staff.

b. **S1.** The S1 and his staff section provide projected personnel status of reconnaissance and surveillance assets at the time the reconnaissance and surveillance commences. The S1 also coordinates and plans health service support for the reconnaissance and surveillance assets, to include casualty evacuation (CASEVAC) and MEDEVAC.

c. **S2.** The S2 and his staff section recommend initial information and priority intelligence requirements. Additionally, the S2 staff section--

- Collects IR from other staff and special staff sections.
- Conducts IPB with staff input; develops the modified combined obstacle overlay (MCOO), enemy situation templates, and event template.
- Identifies intelligence gaps.

- Translates the commander's PIR into specific information requirement and specific orders and requests.
- Determines and designates NAIs.
- Identifies sources and non-organic assets that can be used to answer the battalion PIR.
- Prepares and submits requests for information (RFIs) to the SBCT.
- Has overall responsibility for developing the reconnaissance and surveillance matrix.
- Develops portions of the reconnaissance and surveillance annex/order: Paragraph 1 (situation), Paragraph 2 (mission), and Paragraph 3c (assignment of specific collection tasks [SOR] and where to look [NAIs] for each asset).

d. **S3.** The S3 and his staff section are responsible for overall execution of the reconnaissance and surveillance plan. They also --

- Identify and task battalion assets.
- Coordinate times and locations of linkup and logistics support relationships for attached reconnaissance and surveillance assets.
- Deconflict terrain with SBCT and adjacent battalion for reconnaissance and surveillance assets forward of the line of departure (LD)/line of contact (LC).
- Work with the battalion S2 to ensure that all intelligence requirements are covered.
- Develop the initial graphics overlay.
- Develop portions of the reconnaissance and surveillance annex/order: Paragraph 3a, and 3d (concept of operations and coordinating instructions).

e. **Fire Support Officer.** The FSO and his fire support element develop a fire support plan to support reconnaissance and surveillance assets, ensure observers are integrated into the reconnaissance and surveillance plan to execute the battalion indirect fire plan, and facilitate fire support coordination between battalion, SBCT combat observation lazing teams (COLTs) and the cavalry squadron (RSTA). They also ensure fire support coordination measures are in place to protect friendly troops during reconnaissance and surveillance operations and coordinate and integrate battalion mortar platoon support.

f. **S4.** The S4 and his staff section develop the logistical support plan for the operation and develop paragraph 4 (in conjunction with the S1) of the reconnaissance and surveillance annex/order (service support, maintenance, recovery, and resupply).

g. **S-6.** The S6 and his staff element recommend initial information requirements and develop paragraph 5 (Signal) to the reconnaissance and surveillance annex. They ensure retrans locations for voice systems and digital architecture support scout platoon and reconnaissance and surveillance missions and monitor the status of digital and voice systems to ensure continuous communications with the reconnaissance platoon and other ISR assets.

h. **Reconnaissance Platoon Leader.** The platoon leader is responsible for the tactical employment, collective training, administration, personnel management, and logistics of the platoon. He must know his soldiers and how to employ the platoon and its weapons. He is personally responsible for positioning and employing all assigned or attached weapons. The platoon leader--

- Leads the platoon in supporting the battalion missions. He bases his actions on the missions the battalion commander assigns to him and on the battalion commander's concepts.
- Informs his commander of his actions when operating without orders.
- Plans operations with the help of the platoon sergeant, section leaders, team leaders, and other key personnel.
- Stays abreast of the situation and goes where needed to supervise, issue FRAGOs, and accomplish the mission.
- Requests necessary support from the battalion for his platoon to perform its mission.
- Provides guidance to the platoon sergeant in planning and coordinating the platoon's CSS effort.
- During planning, receives on-hand status reports from the platoon sergeant, section leaders, and team leaders.
- Reviews platoon requirements based on the tactical plan.
- During execution, supervises the platoon sergeant and squad leaders.
- Develops the fire support plan with the platoon sergeant, section leaders, and team leaders.
- Coordinates the obstacle plan.
- Analyzes tactical situations, disseminates information, and employs the full capabilities of his platoon's equipment to accomplish the mission.
- Manages information.
- Ensures subordinates follow database protection procedures to prevent the compromise of digital information.
- Ensures that situation reports (SITREPs) are accurate and are forwarded to the commander and staff as applicable.
- Analyzes and then disseminates pertinent tactical friendly and enemy updates to his subordinates.
- During limited visibility, employs all available own the night (OTN) assets to designate targets for the direct- and indirect-fire weapons and for situation updates.
- As leader of section A, keeps his crew and wingman informed.

i. **Medical Platoon Leader.** The medical platoon leader provides health service support to the battalion. The platoon leader is responsible for providing support to the battalion's attached, OPCON, and organic reconnaissance and surveillance assets. The medical platoon leader--

- Provides immediate trauma and combat medical treatment.
- Provides preventive medical support.
- Monitors the health and hygiene of the battalion.
- Trains the battalion's combat lifesaver personnel.
- Treats and evacuates casualties requiring more definitive care during tactical operations.
- As a special staff member, assists the commander in assuring assigned and attached battalion personnel meet all deployment readiness criteria.

Section III. INTEGRATION WITH THE SBCT'S INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE ASSETS

The SBCT and battalion staffs must coordinate their ISR efforts to prevent duplication of effort. Without integration, the battalion reconnaissance platoon and the cavalry squadron (RSTA) could easily find that they are being tasked to find the same information while leaving gaps in other parts of the collection plan. Reconnaissance elements from the cavalry squadron (RSTA) and the infantry battalions may also inadvertently compete for the same observation post (OP) positions. Although greatly reduced with digitization and FBCB2-generated COP, the possibility still exists that one reconnaissance section may call for fire on another.

3-6. THE CAVALRY SQUADRON (RSTA) AND THE INFANTRY BATTALION RECONNAISSANCE AND SURVEILLANCE ASSETS

There are numerous ways that the battalion reconnaissance platoon and the cavalry squadron (RSTA) can work together to perform their reconnaissance missions.

a. **Offense.** During an SBCT movement to contact (MTC), the cavalry squadron (RSTA) reconnaissance platoons can hand over key observation post positions to the battalion reconnaissance teams as they advance through the AO (Figure 3-2). The RSTA elements can vector the battalion reconnaissance teams into position and keep them informed about terrain, enemy positions, and obstacles that have already been found. The battalion reconnaissance teams can provide over-watch for the RSTA elements as they continue on to their next series of OPs or reconnaissance of the area.
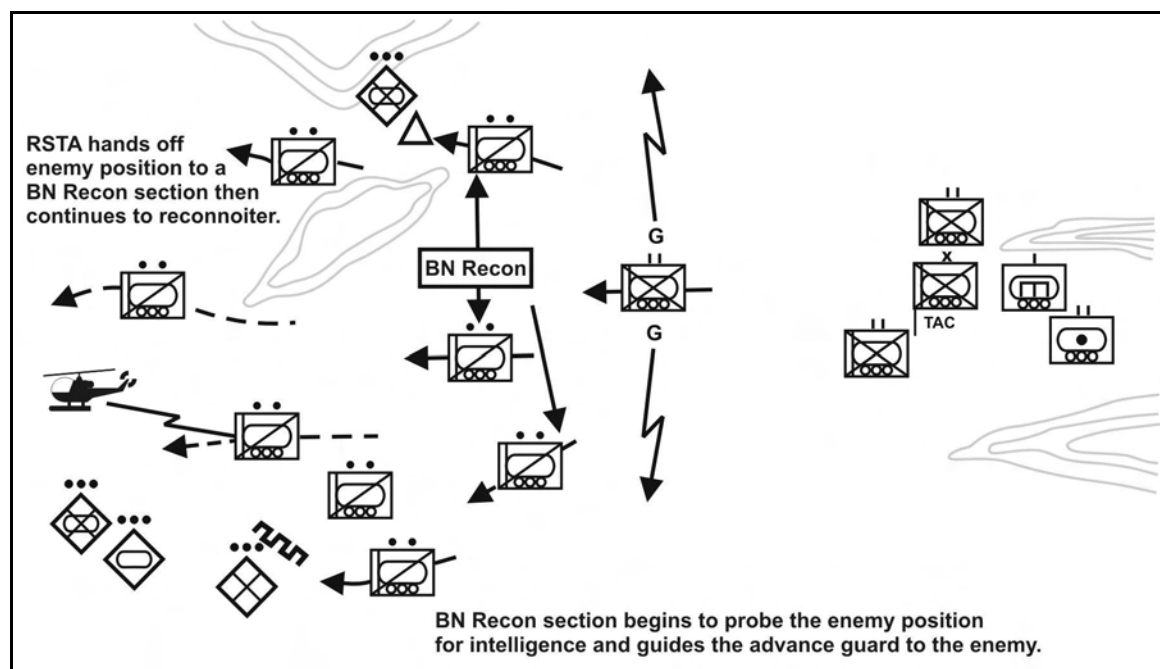
Figure 3-2. RSTA troop and SBCT infantry battalion reconnaissance platoon employment during SBCT movement to contact.

b. **Defense.** In the defense, the primary mission of the reconnaissance platoon is to provide security and early warning for the battalion. Battalion reconnaissance elements

may also be integrated into the SBCT counterreconnaissance mission. Battalion and RSTA elements provide stealthy observation and early warning of the enemy's reconnaissance elements.

(1) The reconnaissance teams maintain a low signature by not engaging targets. MGS or rifle platoons in the counterreconnaissance team kill the enemy reconnaissance. The reconnaissance teams locate the enemy reconnaissance forces and then vector the counterreconnaissance elements to them. The COP provided by FBCB2 allows the reconnaissance teams and the counterreconnaissance teams to execute a more fluid and dynamic counterreconnaissance fight with less chance of fratricide.

(2) The employment and coordination of the battalion reconnaissance platoon and the cavalry squadron (RSTA) reconnaissance elements in the counterreconnaissance operation is unit-and SOP-driven (Figure 3-3). The RSTA elements and battalion reconnaissance can be employed in depth to provide multiple screens for the counterreconnaissance force. RSTA scouts and counterreconnaissance teams occupy the most forward positions. Battalion reconnaissance elements screen behind the counterreconnaissance force. Each battalion employs a counterreconnaissance force to its front capable of fixing and finishing the enemy reconnaissance forces

(3) Unit SOPs must also address procedures for inoperative FBCB2 systems. Reconnaissance elements that have inoperative systems risk fratricide and will need to be accounted for in the command posts with analog methods and by manual input of platforms into the COP. The command posts must also have some method of tracking the operational status of each FBCB2 system.

(4) In order for the battalion reconnaissance platoon and the RSTA elements to work together, the battalion and SBCT staffs must coordinate the following:

- Communications and digital architecture.
- Command and control architecture.
- Terrain management.
- NAI and TAI coverage and intelligence gaps.
- Fire support control measures.
- Fratricide avoidance measures.
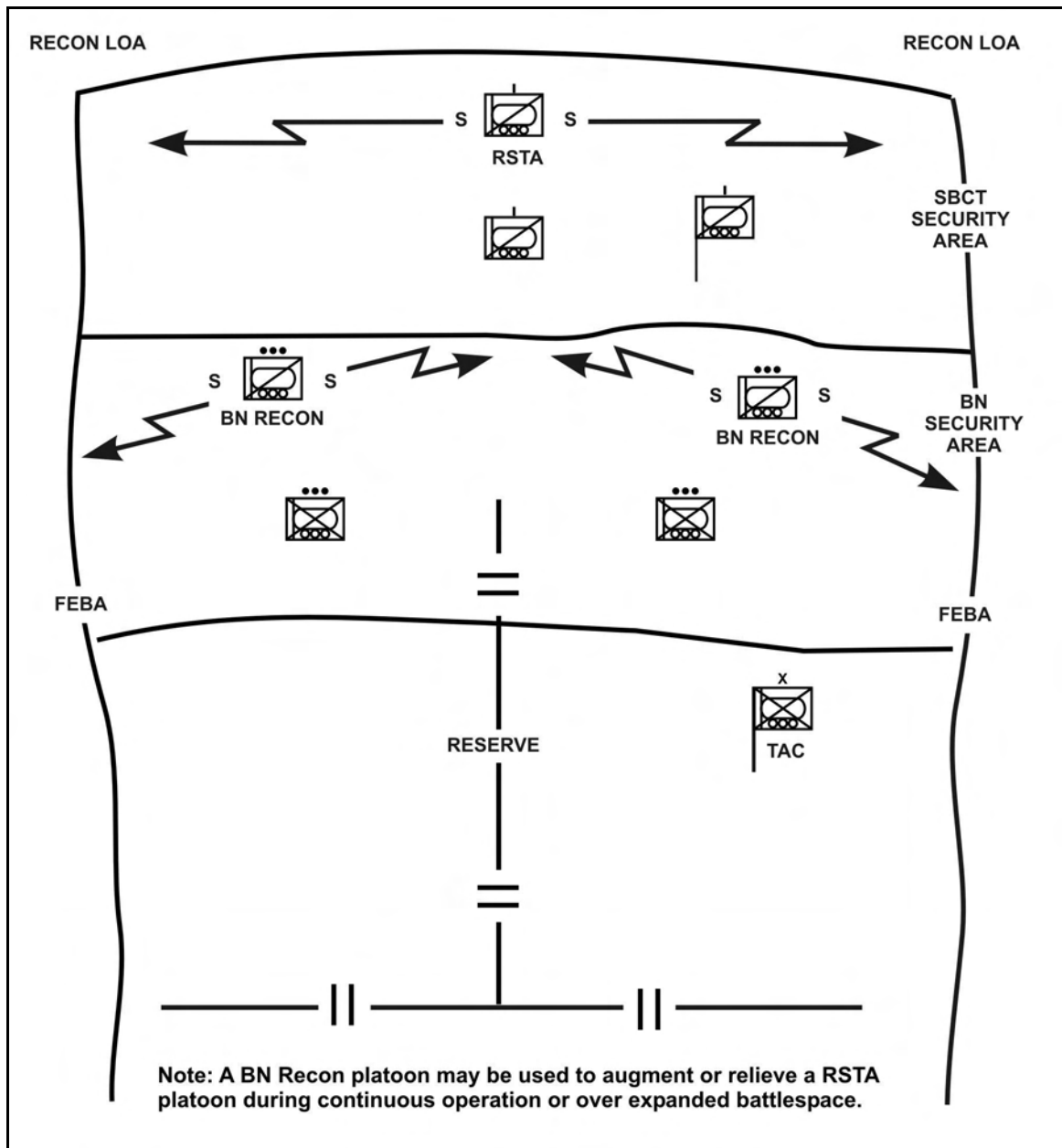
Figure 3-3. Counterreconnaissance organization RSTA troop and battalion reconnaissance platoon.

3-7. CAPABILITIES

The reconnaissance platoon is the battalion's primary means of conducting reconnaissance and surveillance. The reconnaissance platoon is organized into two sections with two RVs each and three 5-man dismounted reconnaissance teams. One section is "heavy" and transports two reconnaissance teams. The other "light" section transports one reconnaissance team and the platoon leader. The reconnaissance platoon rarely uses a headquarters element during tactical operations, relying instead on the leaders of its sections or teams. The battalion reconnaissance platoon may be augmented

with additional assets such as engineers, Javelin teams, snipers, NBC reconnaissance, multisensor teams, COLT teams, or a fire support team (FIST).

a. **Engineers.** Engineers are attached to provide expertise on obstacle belts, minefields, and route and bridge classification.

b. **Javelin Teams.** Infantrymen from the line companies may form "Javelin teams" to augment the platoon for surveillance and target acquisition purposes during limited visibility operations. The nondisposable section of the Javelin is the command launch unit (CLU). The night sight and day sight of the Javelin are integrated into the CLU. The thermal sight has a 3,000-meter plus range under most conditions, which greatly increases target acquisition by the infantryman. The Javelin uses a passive infrared system for target acquisition and lock-on. This means that it emits no infrared or radar beam which enemy systems or smart munitions can detect.

c. **Snipers.** The sniper team can be used as an integral part of the reconnaissance and surveillance effort. The team can help detect targets and cue reconnaissance and surveillance assets to specific areas or targets. It can augment the counterreconnaissance element by occupying concealed positions for long periods. It also can observe direct and indirect fires and execute calls for fire. The sniper team's stealth skills counter the skills of enemy reconnaissance elements. The sniper team can be used where commitment of the infantry squads is unnecessary, freeing squad designated marksmen to cover other areas. The sniper team also can be used to direct ground maneuver elements toward detected targets. (See Appendix C, Sniper Employment, for more information.)

d. **NBC Reconnaissance.** The reconnaissance platoon may also be augmented with NBC reconnaissance assets from the cavalry squadron (RSTA), based upon the factors of METT-TC.

e. **Fire Support Team.** The FIST operates out of the FIST fire support vehicle (FSV). The FSV is equipped with digital and voice communications links to all available indirect fires and effects assets. The large targeting head atop the FSV houses the ground/vehicle laser locator designator (G/VLLD), which can accurately determine the range, azimuth, and vertical angle to targets and can designate targets for laser-guided munitions.

f. **COLT Teams.** Occasionally the reconnaissance platoon will be augmented with a COLT team from the SBCT field artillery battalion. The COLT teams perform fire support and reconnaissance missions as directed and are equipped with the lightweight laser designator/range-finder (LLDR) that will laze targets for those munitions requiring reflected laser energy for final ballistic guidance. They are also equipped with the forward observer system computer for digital connectivity.

g. **Multisensor Team.** The multisensor team from the military intelligence (MI) company is another asset that is organic to the SBCT but may be task-organized to the battalion. The improved remotely monitored battlefield sensor system (IREMBASS) is an unattended ground sensor that will detect, classify, and determine direction of movement of intruding personnel and vehicles. The ground surveillance radar (GSR) is an attended ground sensor that will detect, classify, and determine the direction of movement of intruding personnel and vehicles. The Prophet is an attended emitter locator sensor that can detect, intercept, determine direction of bearing, and possibly the location of intruding personnel communications emitters.

3-8. DIGITIZATION AND COMMUNICATIONS ARCHITECTURE

The communications architecture for the RSTA platoons and the battalion reconnaissance is METT-TC- and unit SOP-dependent. The battalion reconnaissance and the RSTA platoons must have the same COP and digital connectivity in order to prevent fratricide. Spot reports from the battalion reconnaissance platoon are transmitted digitally over FBCB2 or via FM voice.

a. **FM.** Net structure and reporting procedures are unit- and SOP-dependent. The battalion reconnaissance platoon uses the battalion operation and intelligence (OI) net for reporting enemy information and asset locations. The reconnaissance platoon also has an internal platoon net for command and control within the platoon. When the reconnaissance platoon is acting as part of a counterreconnaissance force, it communicates on the counterreconnaissance unit command net. Reconnaissance teams from the battalion will need to communicate with elements of the cavalry squadron (RSTA) in order to pass information and deconflict OP positions. This may be done on the RSTA troop or platoon nets or internal platoon nets.

b. **Digital.** Each RV will have FBCB2 that will enable the battalion command post to track its locations (Figure 3-4, page 3-16). The TOC does not have an FBCB2 terminal. Blue positional information is displayed on the MCS system. Enemy spot reports sent through FBCB2 are routed by the TOC server to the ASAS-light. Future versions of FBCB2 will automatically create an icon when the reconnaissance element lazes a target in order to determine its grid coordinate. (See Appendix D, Digital Division Supplement.) The data will be transmitted over FBCB2 back to the battalion command post. Because of FBCB2's illuminated display, light discipline may dictate that reconnaissance teams use FBCB2 only occasionally at night. In those instances, messages and spot reports will need to be sent over FM. Periodically, however, light discipline measures should be taken so that vehicle commanders can check their FBCB2 display for updates on the friendly and enemy situation.

c. **Analog Reporting.** If a reconnaissance element is unable to report using its FBCB2 system, it can send information over FM to another reconnaissance team that will manually enter the spot report into the FBCB2 system. The spot report goes through the FBCB2 system to the TOC server, which sends it to the C2 INFOSYS. If the report is sent directly via FM to the TOC, the operator will then manually enter the spot report into ASAS-light. ASAS-light receives data from FBCB2, top-down intelligence feeds, the ASAS at SBCT, and manually-entered spot reports at the battalion level. The battalion S2 analyzes the red picture created, eliminates duplicate icons and non-relevant data, and creates the correlated enemy picture. The correlated enemy picture is then disseminated to the INFOSYS through the TOC server and transmitted on the tactical internet to FBCB2 systems.
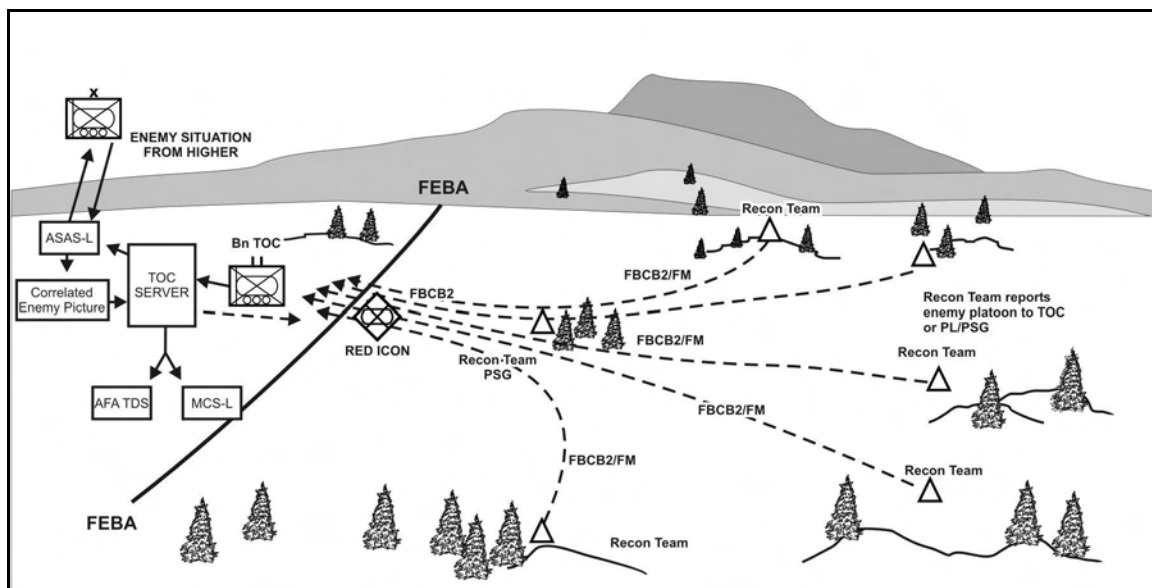
Figure 3-4. Digital connectivity.

3-9. EXECUTING THE RECONNAISSANCE AND SURVEILLANCE PLAN
Commanders depend on subordinate initiative to accomplish missions, even in the absence of orders or a COP. Digital technology enhances SBCT operations but does not govern them. Inevitably, some information systems will fail, either of their own accord or because of enemy action. Commanders develop and communicate their vision to subordinates with enough clarity to allow them to act when this happens. Subordinates complement initiative with constant coordination and by keeping their higher commanders informed. Because units must be able to execute in the absence of a COP, commanders avoid the temptation to over-control subordinates.

a. **Emplacement and Routes.** The battalion staff develops a general picture of where assets should locate on the battlefield. Understanding the SOR and NAIs to cover, the reconnaissance platoon leader/sergeant and team leaders determine the exact OP locations and routes for the reconnaissance teams. The battalion S3 and S2 must closely monitor OP locations to ensure that there is no conflict with the RSTA elements or other SBCT assets. The battalion S3 must also conduct direct coordination with the cavalry squadron (RSTA).

b. **Insertion and Extraction Routes.** While deconflicting terrain with the S3, the S2 and reconnaissance platoon leader identify the methods the platoon will use to infiltrate or bypass enemy forces in order to enhance its survivability and ensure mission success. Inserting assets requires the coordination of the entire staff and will require the battalion to conduct a forward passage of lines for the scout platoon. Critical coordination tasks and actions should be listed in the reconnaissance and surveillance tasking matrix.

c. **Process and Disseminate the Information.** In a digitized environment, commanders and staff officers at the battalion level can expect to receive voluminous amounts of data prior to, during, and after the start of the battle. Procedures must be in place to filter critical information. The battalion S2 must be able to quickly review the incoming combat information, sort it according to criticality and the PIR and IR it answers, and transmit it to the user in the shortest amount of time. Command post

personnel must be aware of the commander's critical information requirements. The CCIRs are essential elements of friendly information, friendly force information requirements (FFIR), and PIR. When a CCIR is answered, the commander must be notified immediately because these answers often influence his decision-making process and battalion employment. While fused intelligence may be the best intelligence, partially analyzed intelligence or combat information may serve to cue the commander as to enemy intentions that were not previously addressed during the war gaming process.

d. **Modify the Reconnaissance and Surveillance Plan.** Whether modifying reporting requirements because of new reporting criteria, new or adjusted PIR, loss of a reconnaissance team or vehicle, or changes in the mission, the battalion S3 must be ready to adjust the reconnaissance and surveillance plan to fit the commander's needs and continue the reconnaissance and surveillance mission. The following items need to be considered during the modification of the reconnaissance and surveillance plan:

- What reconnaissance teams need to be moved?
- What is the new collection requirement and or focus?
- What is the risk in moving the reconnaissance scout team? Is it worth the potential information that might be gained?
- Does the communications and digital architecture require modification?

During the planning process the staff should also consider how to compensate for the loss of a reconnaissance and surveillance asset during critical points in the mission. Staffs will need to consider which unit or asset will replace the lost surveillance and target acquisition asset and issue a "be prepared mission" to the unit or asset in the operations order.

Section IV. SUPPORTING THE RECONNAISSANCE AND SURVEILLANCE PLAN

The SBCT staff must plan, prepare, and synchronize fire support, health service support, and communication and logistical support for the ISR assets. Concurrent with other operational planning, the staff develops its plan during mission analysis and refines it in the war gaming portion of the MDMP. CS and CSS rehearsals should be an integral step in preparation for reconnaissance and surveillance operations. (Refer to Chapters 10 and 11 for detailed discussion of CS and CSS considerations.)

3-10. FIRE SUPPORT

The S3 ensures that indirect fires support the reconnaissance plan and that communication links are maintained with observers and the main CP at all times. The distance the reconnaissance platoon can operate away from the main body is normally limited to the range of supporting indirect fires. For some missions, however, the staff and commander need to assess the risk and value of operating the reconnaissance platoon beyond the range of supporting fires.

3-11. LOGISTICS SUPPORT

Providing service support to reconnaissance and surveillance assets forward of the LD/LC provides a significant logistics challenge since the support elements also risk exposure to enemy contact. It is dangerous to conduct logistics resupply operations across the forward line of own troops (FLOT) with thin-skinned cargo vehicles. A maintenance

team or logistics package can be dedicated to the reconnaissance platoon. The team responds to the needs of the platoon and is brought forward by the headquarters 1SG, the HHC XO, or another responsible individual. The logistics package (LOGPAC) links up with the reconnaissance platoon's PSG at a specifically designated release point as far forward as possible. The PSG is then responsible for the distribution of supplies to the reconnaissance teams. The actual time when the reconnaissance platoon needs to resupply often does not coincide with the standard LOGPAC times for the rest of the battalion. The battalion S4, reconnaissance platoon leader, and platoon sergeant must anticipate events to coordinate the best time for resupply. When the battalion reconnaissance platoon is augmented with assets from the SBCT, the battalion will assume responsibility for logistics support. To minimize risks during logistics operations, the HHC commander and reconnaissance platoon leader may choose to adopt the following procedures:

- Develop vehicle load plans to carry at least five (5) days of Class I, water, and III(B) supply.
- Cross train soldiers in maintenance and recovery tasks.
- Coordinate for aerial resupply (METT-TC dependent).

3-12. MEDICAL

Treating and evacuating wounded soldiers provides another challenge to reconnaissance and surveillance planning since the reconnaissance and surveillance asset has most likely been engaged by the enemy and possesses no dedicated medical support. Sending ground based medical assets in a manner that enhances their survivability, such as attached to a combat patrol or moving undetected under the cover of darkness, often contradicts the necessity to treat wounded soldiers quickly. During aerial evacuation of wounded in action (WIA), planners need to consider landing zone (LZ) security, weather, terrain, possible compromise of the reconnaissance and surveillance effort, possible loss of the aircraft, and the actual urgency of patient care. To help the survivability of soldiers in the reconnaissance platoon, the battalion will need to train the reconnaissance platoon soldiers in basic combat lifesaving techniques. Additionally, the reconnaissance team members should rely primarily on their teams and sections to transfer wounded to designated casualty collection points or pickup zones (PZs) for ambulance or aerial evacuation.

3-13. COMMUNICATIONS

The S3, S2, and S6 develop the signal architecture to support the reconnaissance platoon and other reconnaissance and surveillance assets deployed throughout the area of operation. All reconnaissance and surveillance assets must have continuous, two-way, secure communications with the battalion main CP. This requirement and the size of the reconnaissance and surveillance area of operations may require the SBCT to establish retrans sites forward in the battalion AO.

CHAPTER 4
OFFENSIVE OPERATIONS

Offensive action is the decisive form of any engagement. The primary purpose of the offense is to defeat, destroy, or neutralize an enemy force. A commander may also take offensive actions to deceive or divert the enemy, deprive him of resources or decisive terrain, collect information, or fix an enemy in position. Even in the defense, offensive action is normally required to destroy an attacker and exploit success. The key to a successful offensive operation is to identify the enemy's weakness and choose a form of maneuver that masses overwhelming combat power at the decisive point. This chapter discusses the basics of the offense, which apply to all offensive actions. It discusses the concept of synchronized attacks that maximize the battalion's unique capabilities and the planning and conduct of offensive operations.

The SBCT infantry battalion seizes, retains, and exploits the initiative in conducting offensive operations. Offensive operations are either force-oriented (focused on the enemy) or terrain-oriented (focused on seizing and retaining control of terrain and facilities). Most offensive operations at battalion level combine distinct subunit operations that have force or terrain orientations.

Section I. FUNDAMENTALS OF OFFENSIVE OPERATIONS

The battalion gains and maintains the initiative and keeps constant pressure on the enemy throughout his AO. The battalion transitions from one offensive action to another without pausing. Planning and preparing for the next and for follow-on operations occur simultaneously with execution of the current action.

4-1. CHARACTERISTICS OF OFFENSIVE OPERATIONS

Success in offensive operations depends on the proper application of the fundamental characteristics of the offense discussed in the following paragraphs. The battalion's ability to maneuver mounted or dismounted and move by air or land makes flexibility a key attribute.

   a. **Surprise.** 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 battalion commander must have sufficient information for a clear understanding of his current state in relation to the enemy and environment, a sound understanding of what the end state is for the assigned mission, and a vision of how to move his force from the current situation to the end state. Surprise is more readily attainable because of the battalion's information dominance, flexibility, and mobility. A battalion achieves surprise by--

- Gaining and maintaining information dominance by conducting thorough reconnaissance and surveillance and denying enemy reconnaissance 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.

b. **Concentration.** A force achieves concentration by massing the effects of combat power. Superior timing, precision maneuvers and fires, and speed, facilitated by shared information dominance, allow the battalion commander to mass the effects of his forces when and where appropriate and to shift quickly from one objective or direction to another. With the commander's advantage in information, he has a better understanding of the effects of his action ("seeing" success or the need to continue an attack) and can apply available combat power more efficiently and focus his main effort more effectively. Once it gains success, the battalion can quickly disperse, if needed, to avoid enemy counteractions, again under control enabled by the C2 INFOSYS imbedded in the battalion. A battalion achieves concentration through--

- Careful planning and coordination based on a thorough analysis of terrain and enemy plus accurate, timely reconnaissance.
- Designation of a main effort and allocation of resources to support it.
- Continuous information dominance.
- Unit positions that allow it to mass effects.

c. **Tempo.** Tempo is the ability to adjust the rate of operations relative to battle circumstances and relative to the enemy's capability to sense and react. It is the controlled rate of military action. While a rapid tempo is often preferred, tempo should be adjusted to ensure synchronization. The goal is to keep pressure on the enemy, whether it is done quickly or slowly. Controlling and altering tempo promotes surprise, keeps the enemy off balance, denies the enemy freedom of action, and contributes to the security of the battalion. The battalion's advanced information systems and rapid mobility capabilities facilitate a rapid mounting tempo while permitting the synchronization necessary for a rapid execution tempo.

d. **Audacity.** 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. It depends on the commander's ability to see opportunities for action, to decide in time to seize opportunities, and to accept the risks. Leaders must understand when and where to take risks, plan for them, and execute boldly. The sharing of combat information electronically between leaders at all echelons, coupled with information dominance, reduces the risk but does not eliminate the many uncertainties associated with battle. Digitization improves the commander's ability to make quick situational assessments, to conduct on-the-spot risk assessments, and to make bold decisions based on near-real-time information.

4-2.   CONTACT CONTINUUM

Traditionally, a battalion made contact with the reconnaissance platoon and lead company to develop the situation while in contact with the enemy. The lead company then fixed the enemy, allowing the remainder of the battalion to maneuver against an assailable flank. This method was based on the battalion's ability to overwhelm the enemy with greater available combat power. With the INFOSYS embedded within the SBCT infantry battalion, a new method of making contact is required. This new contact continuum consists of understanding the situation, maneuvering to a position of advantage out of contact, and making contact with the enemy on the battalion's terms (Figure 4-1). Within this new contact continuum, the battalion can mass overwhelming

combat power at the decisive point to achieve its purpose more efficiently and effectively.
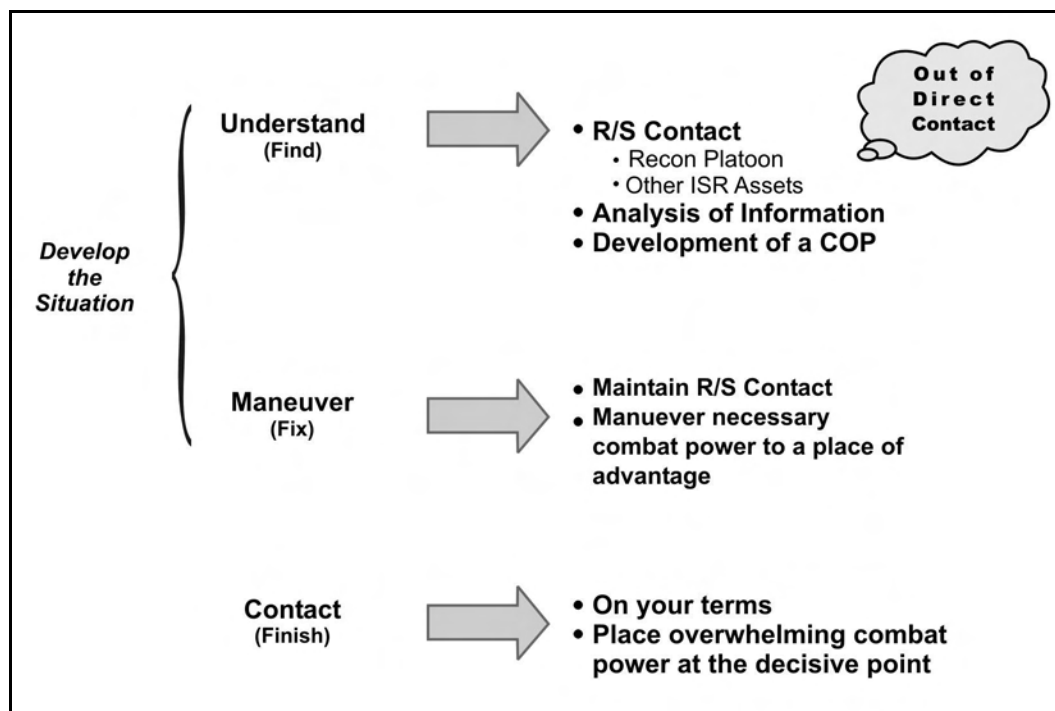
Figure 4-1. Contact continuum.

4-3. ORGANIZATION OF OFFENSIVE OPERATIONS

The battalion organizes forces in a main effort, supporting effort(s), and, if possible, a reserve.

a. **Main Effort.** In a battalion, there is only one main effort. All other elements of the battalion support the main effort. In planning the scheme of maneuver, the main effort must have sufficient combat power and support to accomplish its mission. The main effort accomplishes the battalion's purpose, normally at the decisive point. After designating the main effort, the commander ensures all available resources are focused on supporting it and places the bulk of the offensive capability at his disposal into it. To weight the main effort, the commander may--

- Assign the main effort to the company with the greatest combat power.
- Allocate additional combat power by task organization.
- Assign fewer specified tasks to the main effort, thereby narrowing its mission focus.
- Position overwatch or support-by-fire elements to support the main effort.
- Assign priority of fires (artillery and mortars) and priority of targets.
- Coordinate adjacent unit or attack helicopter support by fire.
- Assign priority of CSS.
- Narrow the scope of the main effort's responsibility in terms of geographical area.

(1) Enemy actions, minor changes in the situation, or lack of success by other elements must not divert forces from the main effort. The commander commits the main

effort at the decisive point where the unit's total combat power can be massed to achieve decisive results. Once committed, the unit may be tasked to seize key terrain or destroy designated enemy forces.

(2) If the situation changes so that the actions originally anticipated as decisive are no longer feasible or relevant, the commander may change the unit designated as the main effort during the course of an operation. Rapidly shifting the main effort as changes in the situation occur is challenging. Time and distance factors determine which forces the commander uses if he shifts the main effort. The commander will need to leverage the battalion's INFOSYS to effectively shift the main effort.

b. **Supporting Effort.** Supporting efforts directly support the main effort's mission accomplishment. Supporting efforts allow the main effort to be successful. Units conducting supporting efforts contain the minimal combat power necessary to accomplish their tasks. The battalion seldom has more than one supporting attack since it weakens the main attack, makes command and control difficult, and increases the chance of a piecemeal attack. The supporting attack accomplishes one or more of the following:

- Contains, fixes, or suppresses enemy forces with maneuver and direct fires.
- Occupies terrain to support the main effort with direct fires.
- Destroys enemy forces that hinder the main effort.
- Deceives the enemy as to the location of the main effort.
- Prevents or delays enemy concentrations against the main effort.
- Penetrates an enemy position to support a follow-on attack.

c. **Reserve.** The battalion's information dominance over the enemy allows the commander to capitalize on the capabilities of digitization to apportion his available troops to the tasks required to effect his concept of attack. The composition of the reserve is based on the firepower, mobility, and type of forces needed to meet its anticipated mission requirements based on the enemy. The reserve provides additional combat power during critical points in the fight, the ability to exploit the success of the main effort, and a hedge against uncertainty. The reserve should be sized to mitigate risk and be based on the level of detail known about the enemy. Intelligence can lead the commander to concentrate his committed units against a specific enemy weak point(s) and identify reserve requirements.

(1) The battalion initial reserve force can be as small as an infantry platoon. The commander and staff must look for opportunities to use other assets, such as fires and situational obstacles, to assist with the reserve mission. To generate larger ground maneuver reserves, the commander must redirect committed elements after they have accomplished their initial tasks or when the enemy's defeat frees them for other tasks.

(2) The speed and agility of the combat platoons allow them to be committed, withdrawn, redirected, and recommitted during the fight. The rotation of units into the reserve role requires the best possible information. Moving a unit from one area (left to right or front to rear) requires everyone in the unit to know where he is, where the enemy is, and where other friendly units are. Additionally, the movement of ground forces over the distances expected in the expanded battlespace requires time. The time and distance relationship for both mounted and dismounted actions, especially under limited visibility conditions and rough terrain, is a key factor in determining which units the commander can realistically consider as a possible reserve force.

(3) The battalion reserve follows the main attack at a distance sufficient to keep it from interfering with the movement of the lead companies and to maintain its freedom of maneuver. The reserve maintains the flexibility to shift to a supporting effort if the main effort changes.

(4) The reserve commander must understand the commander's intent, especially the decision points and conditions for commitment of the reserve. The reserve commander must remain updated on the situation; he must possess the same informational awareness as the battalion commander.

d. **Follow and Support.** In exploitation and pursuit operations, the battalion is normally employed by higher formations in a follow and support role.

(1) Follow and support is a mission in which a committed force follows and supports the unit conducting the main attack. A follow and support mission is assigned to a unit to prevent the unit conducting the main attack (usually the battalion main effort) from having to commit its combat power away from its primary task. A follow and support force executes one or more of the following tasks:

- Destroys bypassed enemy forces.
- Blocks movement of enemy reinforcements.
- Secures routes.
- Clears obstacles or reduces additional obstacle lanes.
- Guards or secures enemy prisoners, key areas, and installations.
- Recovers friendly battle losses.
- Secures key terrain.
- Controls refugees.
- Reinforces the main effort.

(2) When operating as a follow and support force, the battalion's movement techniques are similar to those used in a movement to contact. The battalion coordinates plans with the unit it follows. Both units exchange situation reports frequently to coordinate operations.

e. **Follow and Assume.** Follow and assume is a mission in which a committed force follows another force, normally the main effort, and is prepared to assume the mission of the force it is following if that force is fixed, halted, or unable to continue. The follow and assume force maintains contact with the trail elements of the force it is following and monitors all combat information and intelligence. It can maintain this contact through digital tools or by physical contact. The COP should provide the same picture of the battle to the follow-on force as is available to the lead force.

(1) The follow and assume force is prepared to conduct a forward passage of lines but should attempt to pass around a flank of the lead force when assuming its mission. Additionally, the following force avoids becoming decisively engaged with enemy forces bypassed by the force it is following. The S2 must ensure that the following force is provided current information and disposition of the bypassed enemy forces as well as a current picture of the enemy forces the lead element faces and those it expects to face.

(2) Crucial actions to support the commitment of the follow and assume force include:

- Maintain current COP.
- Shift observers and reconnaissance assets as required.

- Develop graphic control measures to ensure a rapid passage of lines or passing on a flank.
- Ensure terrain is allocated for rapid movement while maintaining force protection.
- Be prepared for the shift in priority of CS and CSS support. Reposition assets and re-task-organize as required.
- Activate emergency resupply operations as necessary.
- Establish direct fire control measures and fire support coordination measures (FSCMs), such as RFLs.

4-4. SEQUENCE OF OFFENSIVE OPERATIONS

The commander and staff consider both preparation and execution as they plan an offensive mission.

a. **Preparation.** The battalion conducts extensive reconnaissance of the objective to support the commander's decisions of how to employ his combat power against the enemy. He normally does not make final decisions as to the exact conduct of the operation until reconnaissance and surveillance operations develop the enemy situation. The commander and staff direct and supervise mission preparations to prepare the battalion for the battle. The battalion employs security forces to protect and conceal attack preparations from the enemy while exercising OPSEC. Preparation time is also used to conduct precombat checks and inspections, rehearsals at all levels, and CSS activities.

b. **Execution.** Execution generally consists of the following five sequential events:

- Movement to the line of departure.
- Approach to the objective.
- Actions on the objective.
- Consolidation and reorganization.
- Transition.

(1) *Movement to the Line of Departure.* When attacking from positions not in contact, battalions often stage in rear assembly areas, road march to attack positions behind friendly units in contact with the enemy, conduct passage of lines, and begin the attack. (See Appendix G, Road Marches and Assembly Areas.) When attacking from positions in direct contact, the line of departure is the same as the line of contact. In certain circumstances (noncontiguous operations) there may not be a line of departure.

(2) *Approach to the Objective.* The commander and staff plan the approach to the objective to ensure security, speed, and flexibility. They select routes, techniques, formations, and methods (air, mounted, dismounted) that best support actions on the objective. All leaders must recognize this portion of the battle as a fight, not a movement. The battalion may have to fight through enemy combat forces, obstacles, artillery strikes, security elements, possible spoiling attacks, and other combat multipliers to reach the objective. The commander employs techniques that avoid the enemy's strength when possible and conceal the battalion's true intentions. He tries to deceive the enemy as to the location of the main effort, uses surprise to take advantage of his initiative in determining the time and place of his attack, and uses indirect approaches when available to strike the enemy from a flank or the rear.

(3) ***Actions on the Objective.*** During an offensive operation, the battalion's objective may be terrain or force-oriented. Terrain-oriented objectives require the battalion to seize or secure a designated area. However, to gain a terrain-oriented objective often requires fighting through enemy forces. If the objective is an enemy force, an objective area may be assigned for orientation, but the battalion's effort is focused on the enemy's actual location. The enemy may be a stationary or moving force. Actions on the objective start when the battalion begins placing fires on the objective. This action usually occurs with preparatory fires while the battalion is still approaching the objective.

(4) ***Consolidation and Reorganization.*** The battalion reorganizes and consolidates as required by the situation and mission. The consolidation and reorganization plan needs to be as detailed as the assault plan.

(a) *Consolidation.* Consolidation consists of actions taken to secure and strengthen the objective and defend against enemy counterattack. The unit providing the supporting effort during the assault may or may not join the assault force on the objective. Planning considerations should include unit locations, sectors of fire, forces oriented on enemy counterattack routes, and provisions to facilitate transition to follow-on operations.

(b) *Reorganization.* Normally conducted concurrently with consolidation, reorganization occurs as necessary to prepare the unit for follow-on operations. Detailed planning provides the battalion a plan for evacuating and recovering casualties, recovering damaged equipment, providing for prisoners of war, and integrating replacement personnel.

(5) ***Transition.*** The battalion executes follow-on missions as directed by the higher commander. The most likely mission is to continue the attack. Other missions may include supporting a passage of lines for a follow-on force, defending, or participating in an exploitation or pursuit. The battalion develops plans for follow-on missions based on the higher headquarters' plan, the higher commander's intent, and the anticipated situation.

Section II. FORMS OF MANEUVER

The battalion uses the five basic forms of maneuver during an attack: envelopment, turning movement, infiltration, penetration, and frontal attack. The commander selects a form of maneuver as a foundation upon which to build a COA.

4-5. ENVELOPMENT

Envelopment seeks to apply strength against weakness. Envelopment avoids the enemy's front--where he is strongest, where his attention is focused, and where his fires are most easily concentrated. The attacker attempts to fix the defender with supporting attacks and fires while he maneuvers the main attack around the enemy's defenses to strike at the flanks, the rear, or both. The battalion's intelligence capabilities enable it to strike from an unexpected direction or against an enemy weakness, forcing the enemy to fight along unprepared, lightly defended, or undefended avenues of approach. The battalion fixes the enemy force with a small force and then attacks with the preponderance of available combat power against the enemy force's flank or rear.

a. Envelopments may be conducted against a stationary or moving enemy force. Sometimes the enemy exposes his flank by his own forward movement, unaware of his opponent's location. In a fluid battle involving noncontiguous forces, the combination of

air and indirect fires may isolate the enemy on unfavorable terrain and establish conditions for maneuver against an assailable flank or rear. The attacker needs to be agile enough to concentrate his forces and mass his combat power before the enemy can reorient his defense (Figure 4-2).

b. When the battalion conducts envelopment, one or more companies make supporting attacks to fix the enemy while other companies of the battalion maneuver against the enemy's flank or rear. The supporting attack must have sufficient combat power to keep the enemy engaged while the enveloping force maneuvers to close with the enemy.

c. Variations of the envelopment include the double envelopment and encirclement.

(1) *Double Envelopment.* The attacker seeks to pass at the same time around both flanks of the enemy. This type of envelopment requires two assailable flanks, precise coordination, sufficient combat power, and detailed timing. A battalion normally does not attempt a double envelopment. The potential for fratricide increases significantly with this form of envelopment.

(2) *Encirclement.* Encirclement occurs when the defender has lost all ground routes of evacuation and reinforcement. Battalion fires must be synchronized to complete the destruction of the encircled force. Forces must be positioned to block or interdict the enemy's attempt to break through and link up from the encirclement. Encirclements are likely to be made during an exploitation or pursuit. Battalions participate in encirclements as part of a larger force.
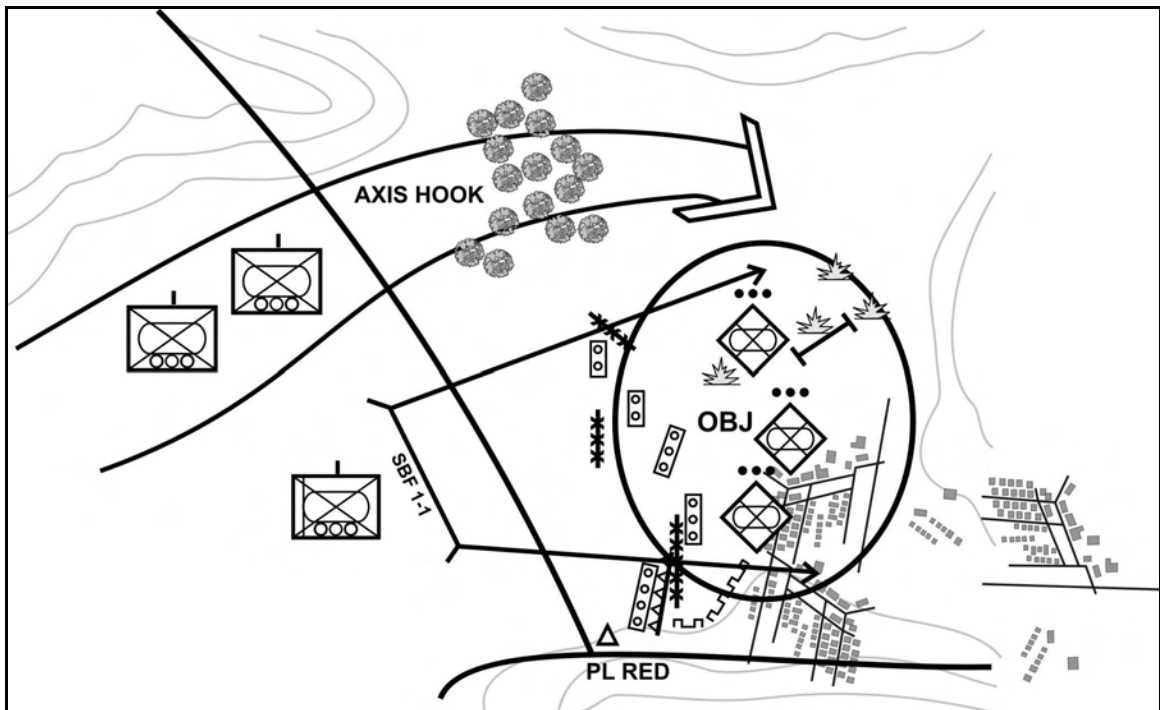
Figure 4-2. Envelopment.

4-6. PENETRATION

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. The attacker

then uses the gap created to pass forces through to defeat the enemy through attacks into his 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 (Figure 4-3, page 4-10).

a. **Concentration.** 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 attack. This may result in high casualties and permit the enemy to fall back intact, thus avoiding destruction.

b. **Steps.** A penetration is conducted in three steps.

(1) *Step 1: Penetrating the Main Line of Resistance.* A reinforced company can execute the initial penetration. They breach the enemy's obstacles using mineplows, mine clearing line charges (MICLICs), or dismounted infantry squads depending on the extent and composition of the obstacles.

(2) *Step 2: Widening the Gap to Secure the Flanks.* The battalion seizes enemy positions behind the obstacles and widens the shoulders of the penetration to allow assaulting forces room to attack deep objectives.

(3) *Step 3: Seizing the Objective and Subsequent Exploitation.* Exploitation of the penetration is made as companies complete the destruction of the enemy and attack to secure deeper objectives. Objectives for the assaulting force are deep enough to allow an envelopment of the rest of the enemy position and should facilitate attack by fire against second echelon enemy positions and enemy counterattack routes.

c. **Planning Considerations.** To allow a penetration, the terrain must facilitate the maneuver of the penetrating force. The concentration of the battalion is planned to penetrate the defense where the continuity of the enemy's defense has been interrupted, such as gaps in obstacles and minefields or areas not covered by fire. If METT-TC analysis identifies multiple weaknesses in the enemy's position, multiple penetrations should be considered. When essential to the accomplishment of the mission, intermediate objectives should be planned for the attack.
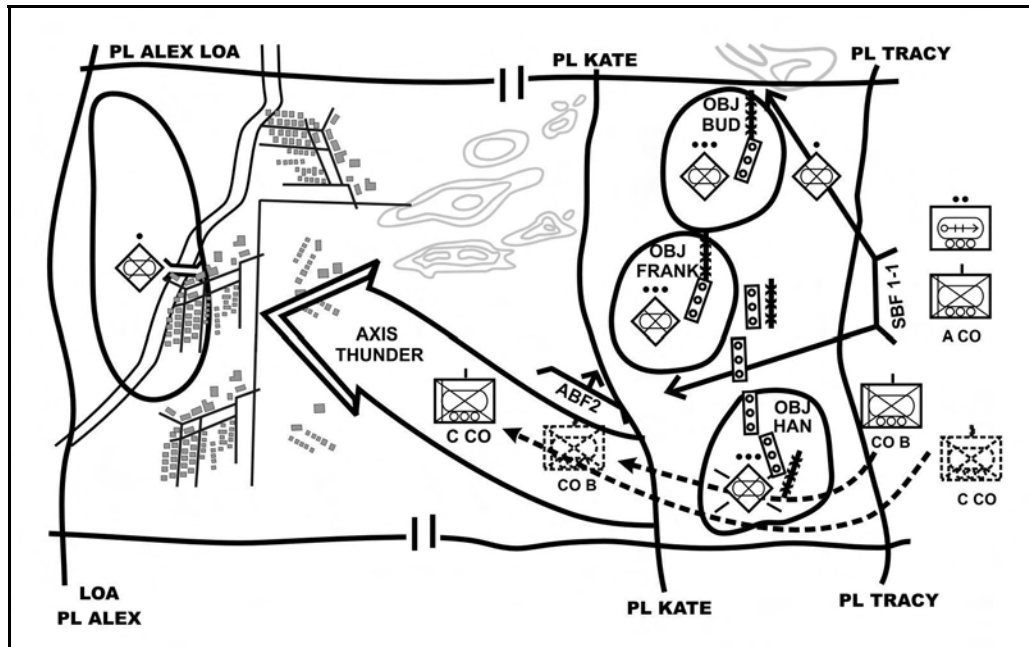
Figure 4-3. Penetration.

4-7. TURNING MOVEMENT

In a turning movement (Figure 4-4), the unit passes around and avoids the enemy's main force, then secures an objective that causes the enemy to move out of its current position or divert forces to meet the threat. The battalion conducts a turning movement as part of a larger unit's operation. This movement allows the unit, SBCT or higher, to fight the repositioning enemy forces on terms and conditions that are favorable. The battalion can also conduct a turning movement with subordinate companies.
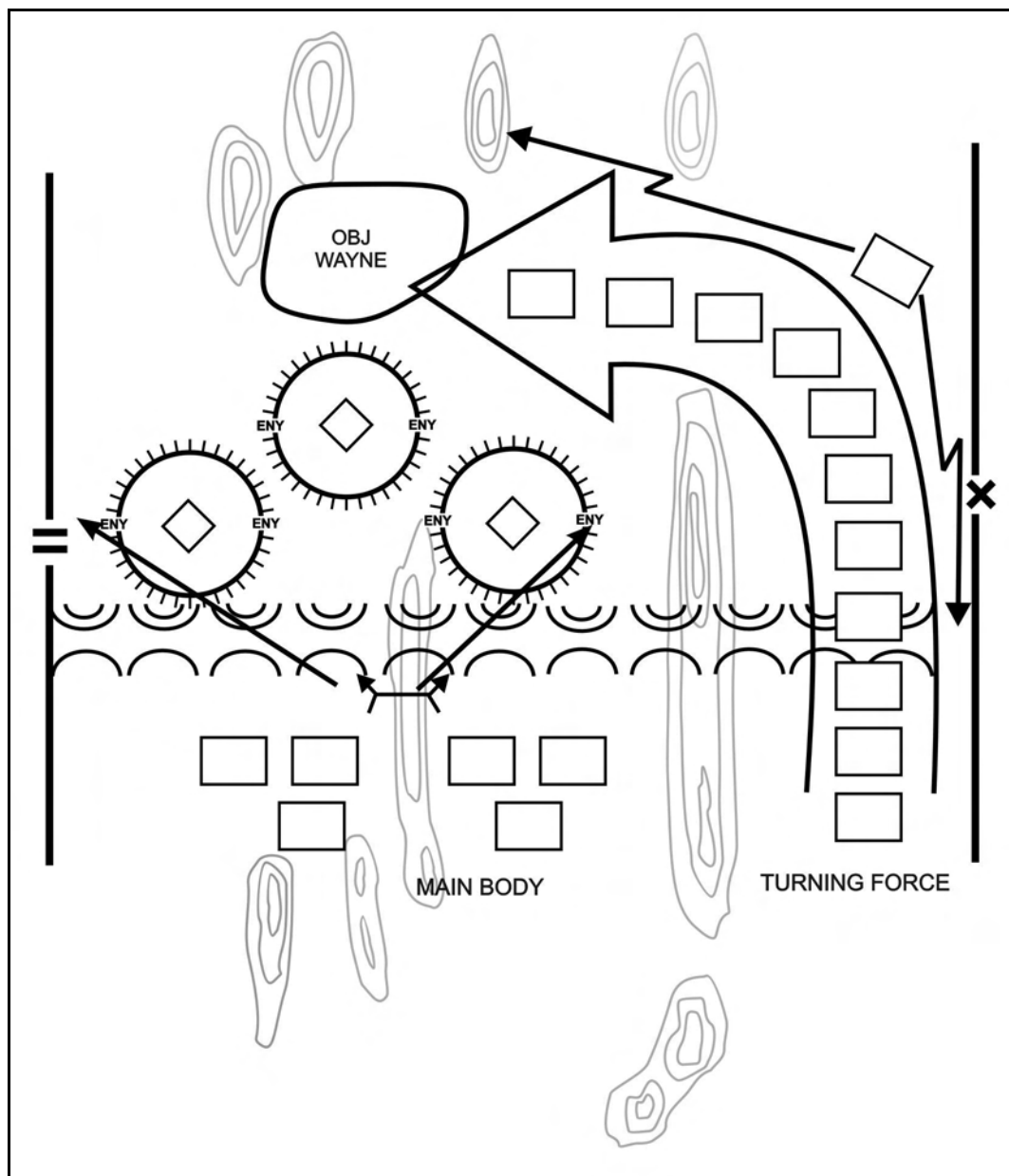
Figure 4-4. Turning movement.

4-8.   INFILTRATION

Infiltration (Figure 4-5, page 4-12) is a form of maneuver in which combat elements conduct undetected movement (mounted or dismounted) through or into an area occupied by enemy forces to occupy a position of advantage in the enemy's rear. The commander uses infiltration to--

- Attack lightly defended positions or stronger positions from the flank and rear.
- Secure key terrain in support of the main effort.
- Disrupt enemy rear operations.
- Relocate the battalion by moving to battle positions around an engagement area.

- Reposition to attack vital facilities or enemy forces from the flank or rear.
- Harass and disrupt the enemy's CSS.

a. **Planning Considerations.** An infiltration should be planned during limited visibility through areas the enemy does not occupy or cover by surveillance and fire. Planning should incorporate infiltration lanes, rally points along the route or axis, and contact points. Single or multiple infiltration lanes can be planned.

(1) *Single Infiltration Lane.* A single infiltration lane--
- Facilitates navigation, control, and reassembly of the battalion.
- Is less susceptible to detection.
- Reduces the area for which detailed intelligence is required.
- Takes longer to move the force through enemy positions.

(2) *Multiple Infiltration Lanes.* Multiple infiltration lanes--
- Reduce the possibility of compromising the entire battalion.
- Facilitate expeditious movement.
- Are more difficult to control.
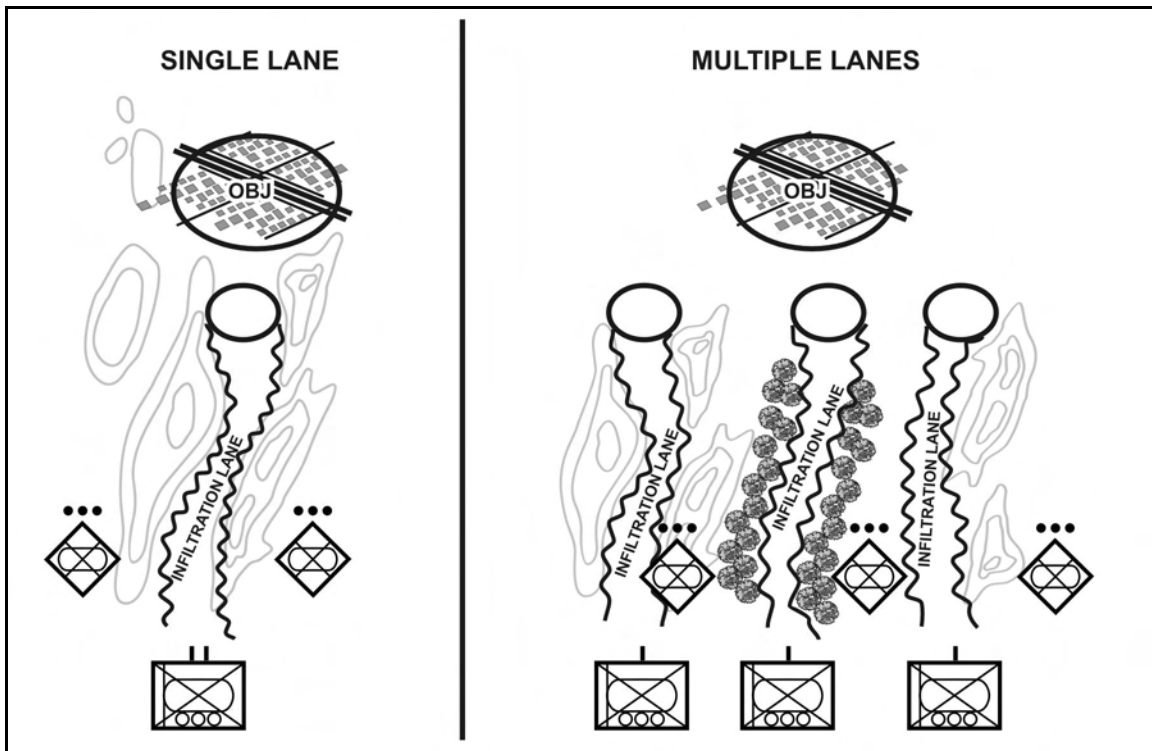
Figure 4-5. Infiltration.

b. **Vehicle Laager.** The battalion has the ability to laager its vehicles and proceed on foot to areas that place the enemy at a disadvantage. Upon completion of the mission the vehicles can be brought forward and the battalion will be positioned to conduct follow-on operations. The commander avoids alerting the enemy of his intentions by positioning maneuver and artillery units and the effects of fires in support of the infiltration. Infiltration is normally used in conjunction with some other form of maneuver.

4-9.   FRONTAL ATTACK

The frontal attack is usually the least desirable form of maneuver because it exposes the majority of the offensive force to the concentrated fires of the defenders. The battalion may conduct a frontal attack against a stationary or moving enemy force (Figure 4-6). Unless frontal attacks are executed with overwhelming speed and strength against a weaker enemy, they are seldom decisive. The battalion attacks the enemy across a wide front and along the most direct approaches. It uses a frontal attack to overrun and destroy a weakened enemy force or to fix an enemy force. Frontal attacks 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 frontal attack may be appropriate--

- In an attack or meeting engagement where speed and simplicity are paramount to maintaining battle tempo and, ultimately, the initiative.
- In a supporting attack to fix an enemy force.

Figure 4-6. Frontal attack against a moving enemy.

4-10.   MOVEMENT TECHNIQUES AND FORMATIONS

The selection of movement techniques and attack formations for the battalion depends on the factors of METT-TC.

   a.   **Movement Techniques.** The movement techniques used are traveling, traveling overwatch, and bounding overwatch. The battalion does not usually move as a unit using one movement technique. However, when moving as a unit along a single avenue, the

battalion commander designates the movement technique to be used by the lead unit(s) based on the likelihood of enemy contact. For example, the battalion may be moving to contact in column formation, while the lead company may be in a wedge formation using traveling overwatch. Movement techniques are used when not in contact with the enemy; they end upon enemy contact when the unit begins its actions on contact and the overwatching force begins its suppressive fires (maneuver). The battalion should try to make enemy contact with the smallest possible force. This technique allows the majority of the battalion freedom to maneuver against the enemy force.

b. **Formations.** The battalion may move in any one of these basic formations: column, wedge, vee, echelon, and line. The battalion may use more than one formation in a given movement, especially if the terrain changes during the movement. For example, the battalion 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 the enemy dispositions, may also prompt the commander to use more than one formation. Distances between units depend on the factors of METT-TC.

(1) *Column Formation.* The battalion moves in column formation (Figure 4-7) when early contact is not expected and the objective is far away. The battalion's lead element normally uses traveling overwatch while the following units travel. The column formation--

- Facilitates speed of movement, ease of control, and usefulness in close terrain.
- Provides for quick transition to other formations.
- Requires flank security.
- Provides the majority of firepower to flanks.
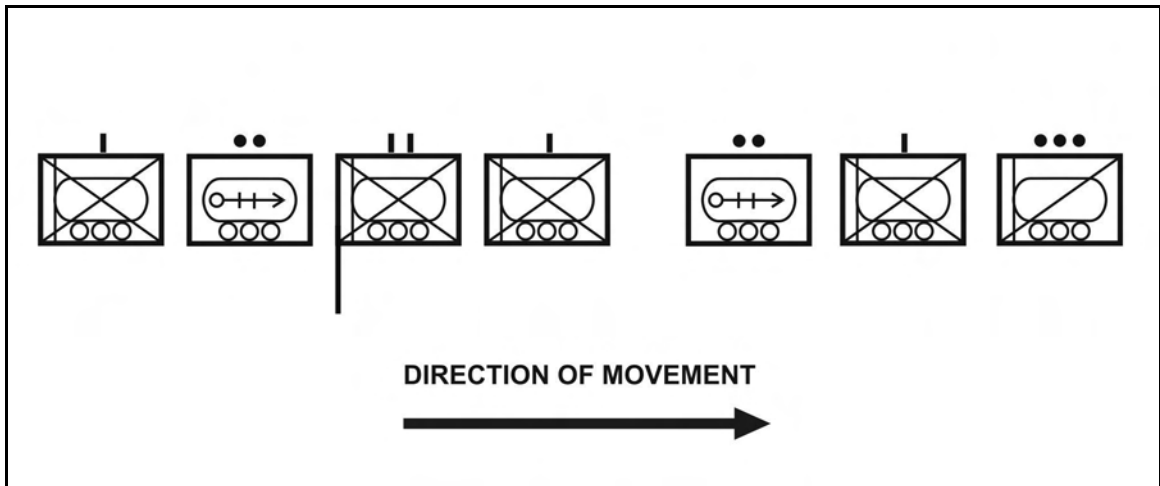
Figure 4-7. Battalion in column formation.

(2) *Wedge Formation.* The wedge formation (Figure 4-8) postures the battalion 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 space to disperse laterally and in depth.
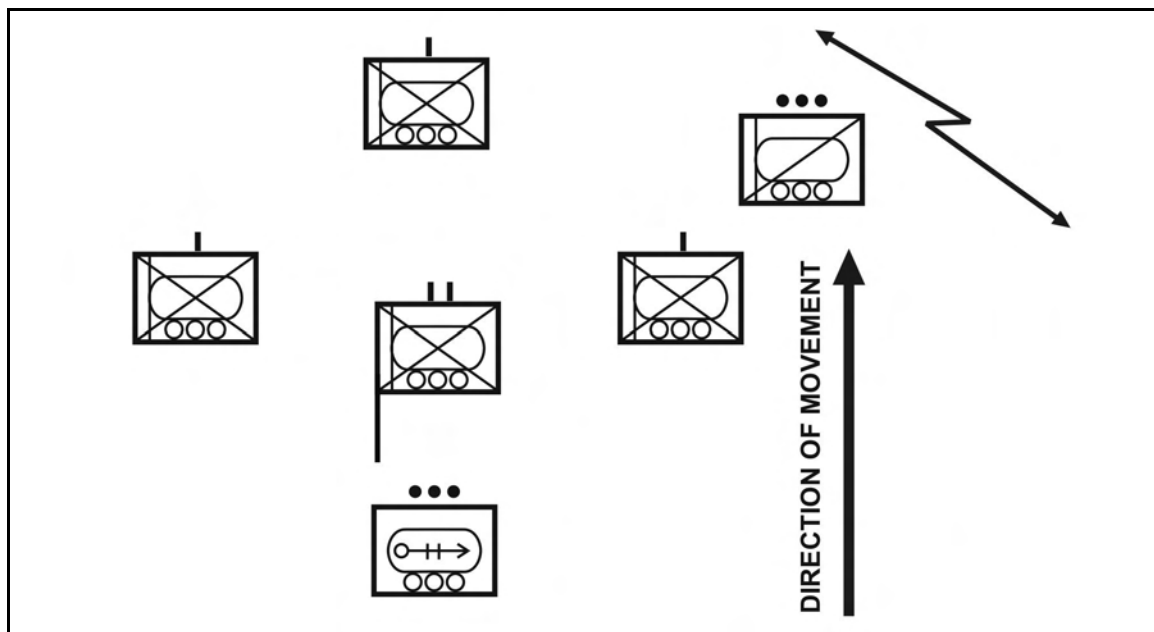
Figure 4-8. Battalion in wedge formation.

(3) *Vee Formation.* The vee formation (Figure 4-9, page 4-16) postures the battalion with two companies abreast and one trailing. This arrangement is most suitable to advance against an enemy known to be to the front of the battalion. The battalion may use the vee when enemy contact is expected and the location and disposition of the enemy is known. The following planning considerations apply:

- Formation is hard to orient and control is more difficult in close or wooded terrain.
- Battalion must rely more on FBCB2 for control.
- Formation provides for good firepower forward and to the flanks.
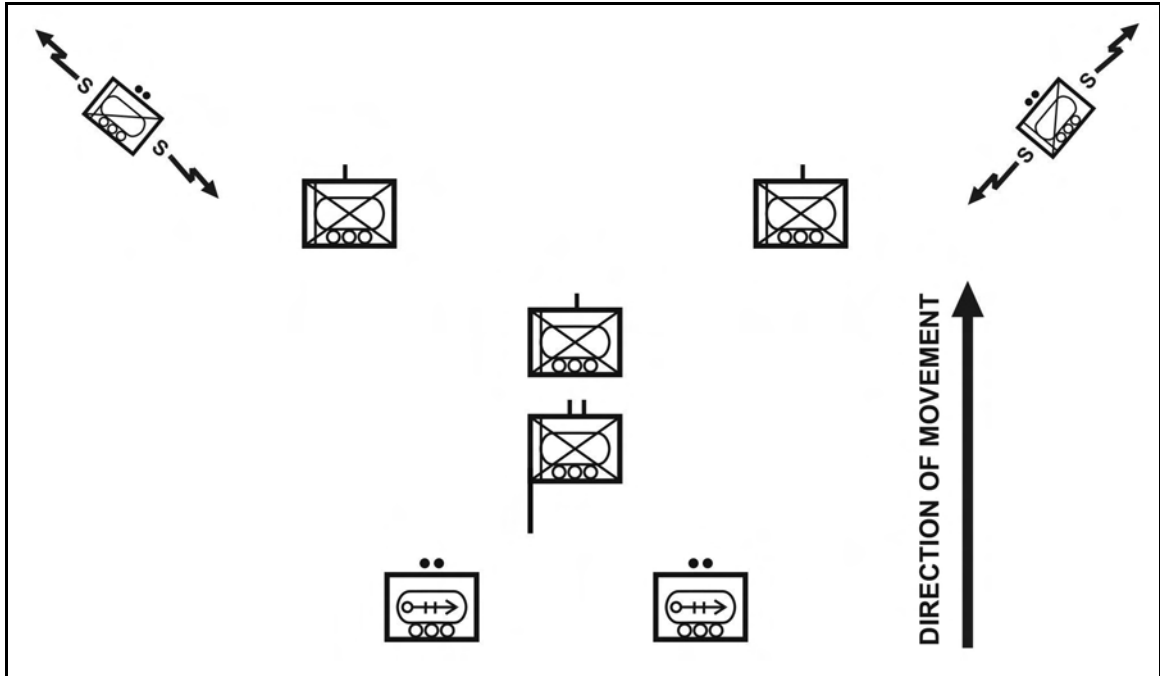
Figure 4-9. Battalion in vee formation.

(4) *Echelon Formation.* The echelon formation (Figure 4-10) arranges the battalion with the companies in column formation in the direction of the echelon (right or left). The battalion commonly uses the echelon when providing security to a larger moving force. The echelon formation--

- Provides for firepower forward and in the direction of echelon.
- Facilitates control in open areas but makes it more difficult in heavily wooded areas.
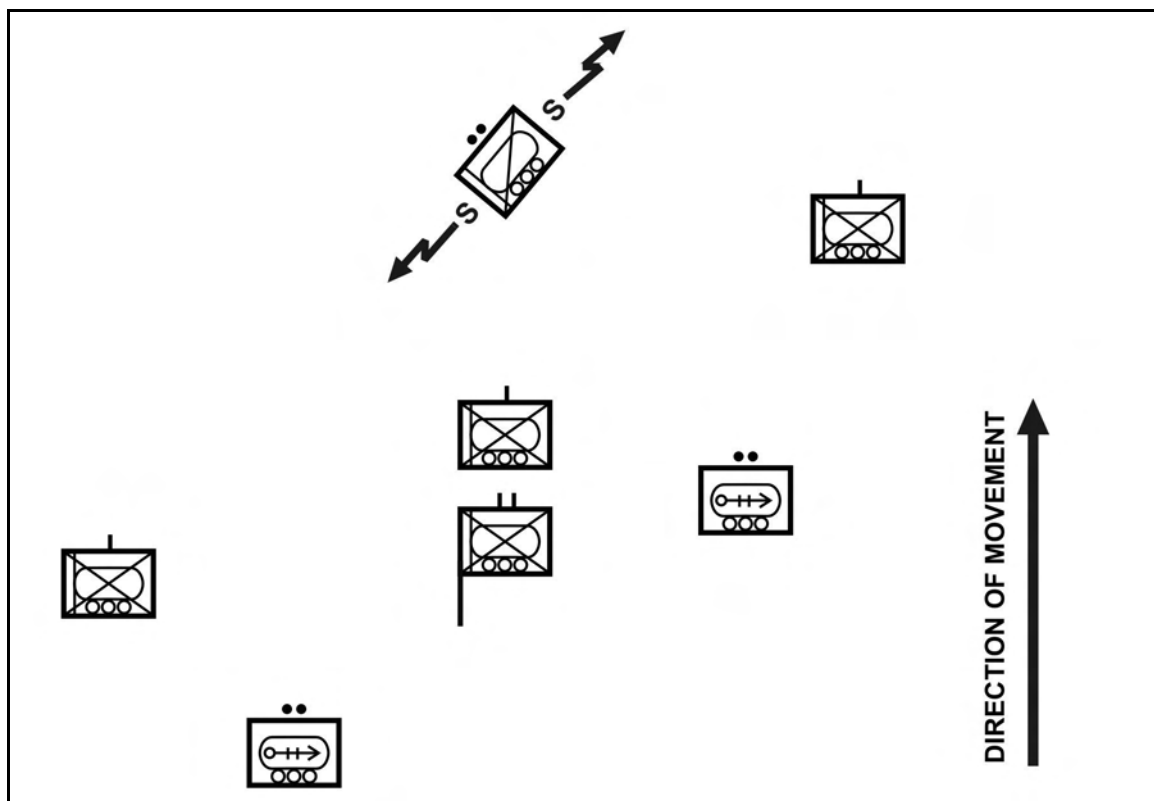
Figure 4-10. Battalion in echelon left formation.

(5) *Line Formation.* The line formation (Figure 4-11, page 4-18) postures the battalion with companies on-line and abreast of one another. Since it does not dispose companies in depth, the line formation provides less flexibility of maneuver than other formations. The battalion uses the line when it requires continuous movement with maximum firepower to the front in an assault.
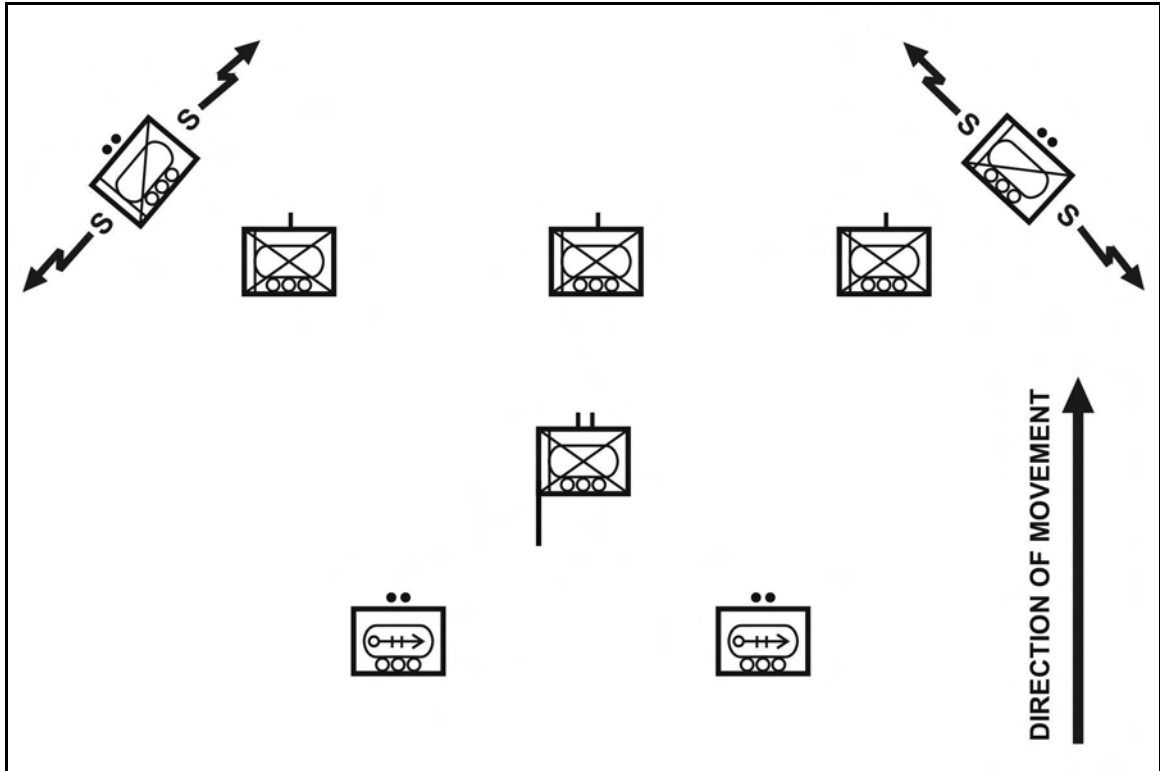
Figure 4-11. Battalion in line formation.

Section III. FORMS OF TACTICAL OFFENSE

At the battalion level, the offense takes the form of either a deliberate or a hasty operation, such as a movement to contact, attack, exploitation, and pursuit across the full spectrum of conflict. The battalion may also be given the mission to conduct special purpose attacks such as a raid, demonstration, spoiling attack, or counterattack. Attacks, exploitations, and pursuits may be conducted sequentially or simultaneously throughout the AO.

- **Hasty Operations**. The battalion conducts a hasty offensive operation after a successful defense or as part of a defense; as a result of a movement to contact, a meeting engagement, or a chance contact during a movement; or in a situation where the unit has the opportunity to attack vulnerable enemy forces.
- **Deliberate Operations**. A deliberate offensive operation is a fully synchronized operation that employs all available assets against the enemy's defense, IAW the ROE, and is characterized by detailed planning based on available information, thorough reconnaissance, preparation, and rehearsals.

4-11. MOVEMENT TO CONTACT

The battalion conducts movement to contact when the tactical situation is not clear or when the enemy has broken contact. The SBCT's cavalry squadron (RSTA) and C2 INFOSYS do not negate the need to conduct traditional movements to contact. However, the actual techniques and procedures used during a movement to contact may be

modified to fit the capabilities found within the battalion. Battalions conduct movement to contact independently or as part of a larger force.

a. **Purpose.** The purpose of a movement to contact is to gain or reestablish contact with the enemy. The battalion will normally be given a movement to contact mission as the lead element of an SBCT attack or as a counterattack element of an SBCT or division. The battalion conducts movement to contact in a manner that allows it to maneuver to develop the situation fully, to maintain freedom of action, and, if possible, to defeat the enemy once contact is made. This flexibility is essential in maintaining the initiative. The movement to contact terminates with the occupation of an assigned objective or when enemy resistance requires the battalion to deploy and conduct an attack to continue forward movement.

b. **Information Dominance.** The superior intelligence, acquisition, and information dominance capabilities available to the SBCT and the battalion are likely to make movements to contact less common and change the nature of the meeting engagements that normally end a movement to contact. However, depending on the available ISR assets, the effectiveness of the collection plan, and the enemy's success in masking his dispositions, the battalion may still need to conduct a movement to contact. An exploitation or pursuit by the battalion's parent SBCT is likely to require a movement to contact by the battalion, at least initially. A battalion given a movement to contact mission is assigned a zone of action or an axis of advance and an objective at a depth to ensure contact with the enemy.

4-12. ORGANIZATION OF MOVEMENT TO CONTACT
When executing a movement to contact, the battalion normally organizes into a security force comprised of a reconnaissance and surveillance force, an advance guard, the main body, and flank and rear guards (Figure 4-12, page 4-20).
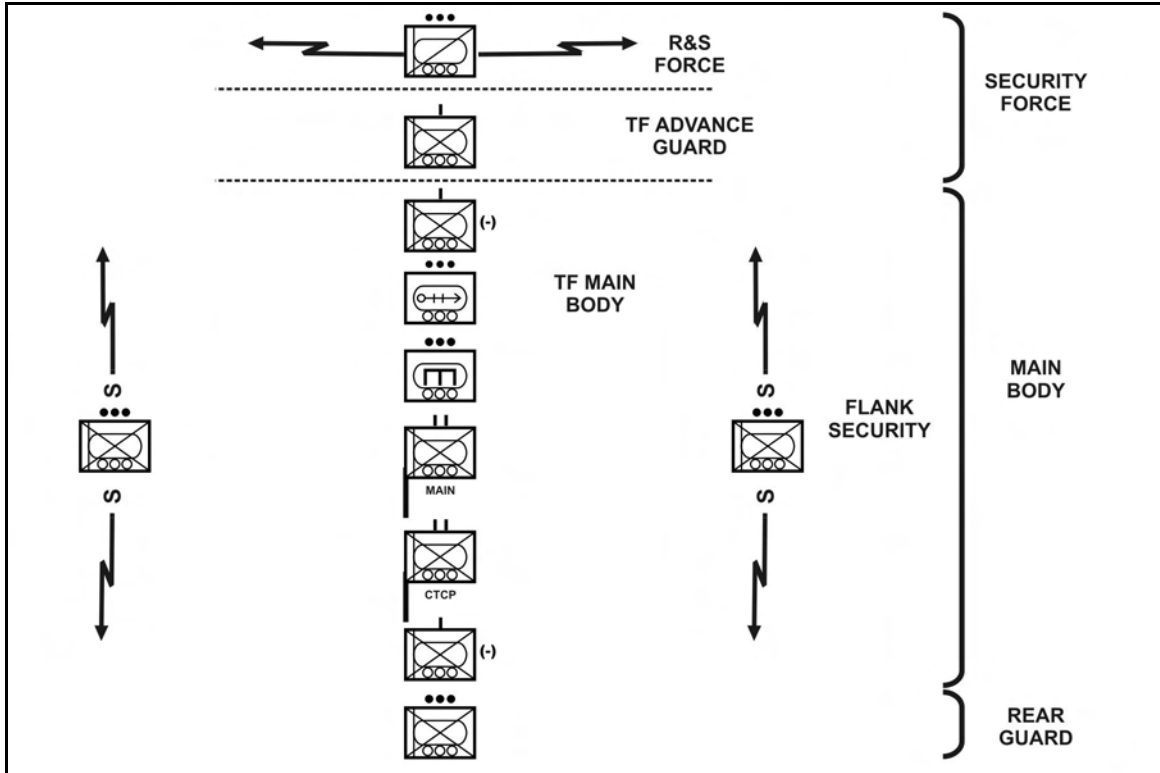
Figure 4-12. Battalion movement to contact as part of an SBCT.

a. **Reconnaissance and Surveillance Forces.** The reconnaissance and surveillance force for the battalion is normally the reconnaissance platoon. Engineers and forward observers (FOs) are attached to the reconnaissance and surveillance force as necessary. Normally, the reconnaissance and surveillance force has initial priority of indirect fires. The mission of the reconnaissance and surveillance force is to determine the size, activity, location, and depth of the enemy force. Other tasks, similar to an area reconnaissance, normally include--

- Reconnaissance of routes, bridges, and roads.
- Reconnaissance of obstacles and restrictive terrain.
- Surveillance of critical areas, danger areas, or key terrain.

(1) The reconnaissance and surveillance force must cover the frontage of the battalion axis of advance. It avoids decisive engagement, but once found it must keep the enemy under surveillance and report his activity.

(2) The reconnaissance and surveillance force must be far enough ahead of the advance guard to provide adequate warning and sufficient space for it to maneuver. However, the reconnaissance and surveillance force must not be so far ahead that the advance guard cannot rapidly assist it in disengaging from the enemy should that become necessary. The advance guard keys its movement on the movement of the reconnaissance and surveillance force.

(3) The reconnaissance and surveillance force must be able to receive the latest information available from the SBCT's reconnaissance troop as well as information available from its ISR analysis platoon and ISR integration platoon of the military intelligence company (MICO) and other battlefield surveillance assets. With this

information, the reconnaissance and surveillance force can confirm intelligence provided by these assets and greatly reduce the risks and unknowns normally associated with a movement to contact mission. This information is also available to the battalion elements.

b. **Advance Guard.** The advance guard for a battalion is usually a company. Its composition depends on the factors of METT-TC. In open terrain, it may move mounted; in restricted, close, complex, or urban terrain, dismounted movement with vehicles in the overwatch is a better choice. The engineers follow or are attached to the lead elements. The two lead companies are task-organized accordingly when a battalion moves in parallel columns.

(1) The advance guard operates forward of the main body to provide security for the main body 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 does this by rapidly developing the situation upon encountering the enemy's lead elements; destroying reconnaissance, ambushes, or delaying enemy forces; and marking bypasses for or reducing obstacles. The advance guard--

- Maintains current COP of the entire battalion, especially the reconnaissance and surveillance force.
- Reports enemy contact to the battalion commander.
- Collects and reports all information about the enemy.
- Selects tentative fighting positions for following battalion units.
- Attempts to penetrate enemy security elements and reach or identify the enemy main force.
- Destroys or repels all enemy reconnaissance forces.
- Prevents enemy ground forces from engaging the main body with direct fires.
- Locates, bypasses, or breaches obstacles along the main body's axis of advance.
- Executes tactical tasks such as fix, contain, 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 via FBCB2 and FM voice.

(2) Until the main body is committed, the advance guard is the battalion commander's main effort. Priority of fires shifts to the main body once committed.

(3) In planning the movement to contact, each contingency operation should revolve around the actions of the advance guard. The lead elements must be well trained on battle drills, especially those involving obstacle reduction and actions on contact.

c. **Main Body.** The main body keys its movement to the advance guard. It maintains current information of the advance guard's activities via its digital tools, primarily FBCB2. This digital capability allows the main body to key its movement on the advance guard while utilizing terrain and distance for force protection. The main body, remaining attuned to the advance guard's situation, provides responsive support when it is committed.

(1) The main body contains the bulk of the battalion's combat elements and is arrayed to achieve all-round security. The combat elements of the main body are prepared to deploy and attack rapidly, giving them the flexibility to maneuver rapidly to a decisive point on the battlefield to destroy the enemy.

(2) The use of standard formations and battle drills allows the battalion commander, based on the information available to him through ABCS, to shift combat power rapidly on the battlefield. Companies employ the appropriate movement techniques within the battalion formation. Company commanders, based on their knowledge of the battalion's situation, anticipate the battalion commander's decisions for commitment of the main body and plan accordingly.

d. **Flank and Rear Security.** To provide flank and rear security, platoon-size elements from one or more of the companies in the main body conduct guard missions under company control. These elements remain at a distance from the main body to allow the battalion time and space to maneuver to either flank or the rear. Flank and rear security elements also operate far enough out to prevent the enemy from placing direct or observed indirect fires on the main body. Indirect fires are planned on major flank and or rear approaches to enhance security.

4-13. SEARCH AND ATTACK TECHNIQUE IN MOVEMENT TO CONTACT

The search and attack technique, mounted or dismounted, is a decentralized movement to contact requiring multiple, coordinated patrols (squad- and platoon-size) to locate the enemy. It is most often used against an enemy operating in dispersed elements. When conducting a search and attack, units can expect to spend more time reconnoitering in an area of operations. A procedure for conducting the search and attack technique is to organize the battalion (in purpose as well as space) in such a manner to enable it to find, fix, and finish the enemy within the AO. The battalion may direct each individual company to conduct find, fix, and finish procedures at their level while providing the appropriate level of support in terms of assets, fires, and effects. In either case, the battalion must designate a main effort and supporting efforts that enable it to maintain the amount of flexibility the situation dictates.

a. **Purpose.** Search and attack can be conducted for many reasons. The commander's concept focuses the battalion on one or more of the following:

(1) *Destruction of Enemy.* Enemy units operating in the area must be killed or rendered combat ineffective.

(2) *Area Denial.* The enemy must be prevented from operating unhindered in any area (for example, in any area he is using for a base camp or for logistics support).

(3) *Force Protection.* The enemy must be prevented from disrupting and destroying friendly military or civilian operations, equipment, and property (such as key facilities, SBCT headquarters, polling places, or dams).

(4) *Information Collection.* The battalion must conduct IPB, if not provided by higher, as soon as it enters an area and before it conducts any of the above activities.

b. **Tasks.** Search and attack operations can be conducted in a company- or battalion-size area of operations. Figure 4-13 shows an example of dispersing to search, and Figure 4-14, page 4-24, shows an example of a unit massing to attack. The unit can be tasked--

- To locate enemy positions or routes normally traveled by the enemy.
- To destroy enemy forces within its capability or to fix or block the enemy until reinforcements arrive.
- To maintain surveillance of a larger enemy force through stealth until reinforcements arrive.
- To set up ambushes.

- To search towns or villages (a host nation representative should accompany the search party).
- To secure military or civilian property or installations.
- To act as a reserve.
- To develop the situation in a given area.
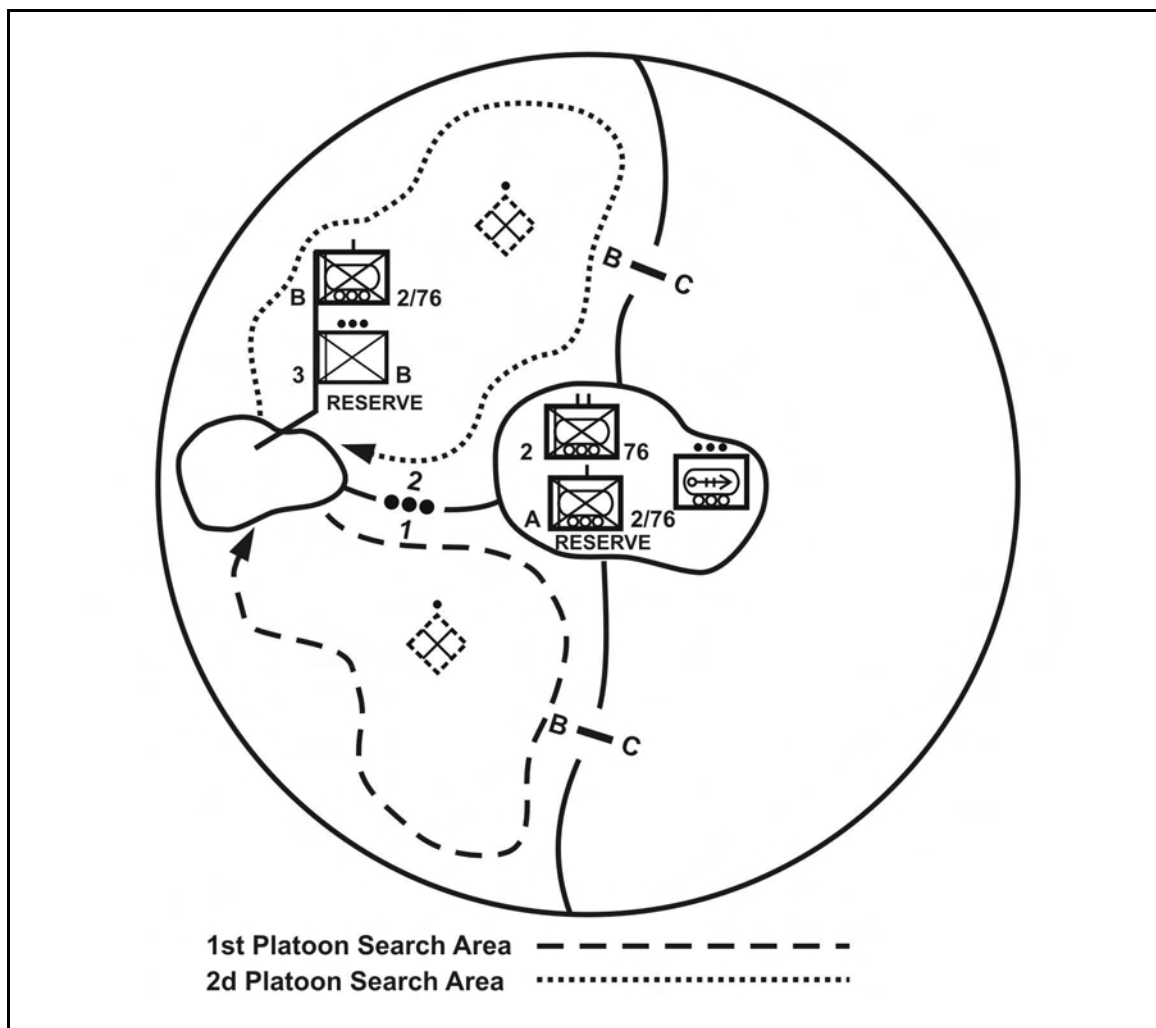
Figure 4-13. Example of unit dispersing to search.
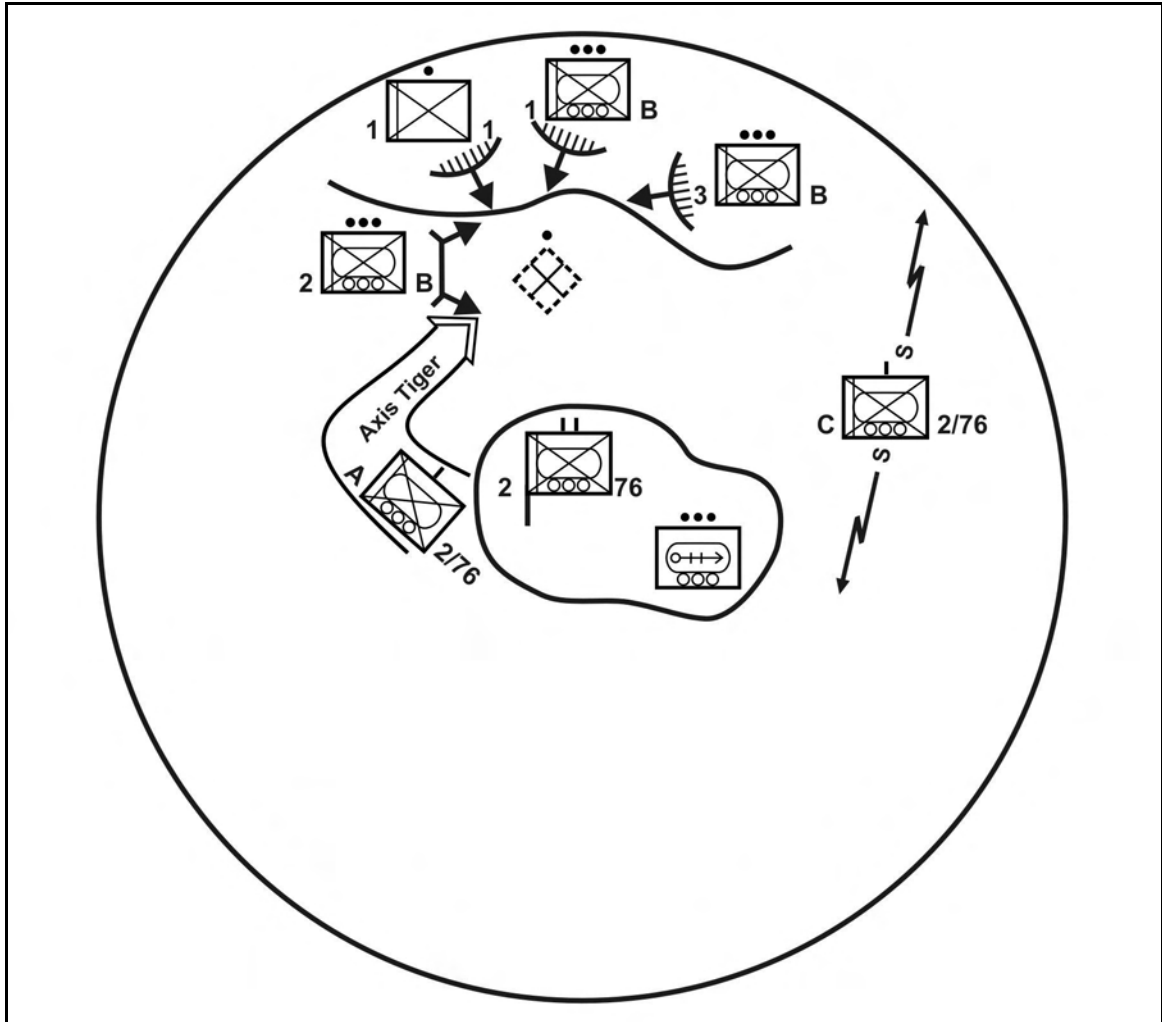
Figure 4-14. Example of unit massing to attack.

c. **Concept Development.** The concept for the search and attack is based on thorough IPB. The S2 combines his own predictive and or pattern analysis with information available from the cavalry squadron (RSTA) and the battalion's reconnaissance and surveillance assets to determine likely enemy locations, capabilities, patterns, and actions. The friendly concept can then be developed to capitalize on the battalion's precision fires and maneuver. The commander must consider the following when developing his concept.

(1) *Finding the Enemy.* Much time may be required to determine the pattern of enemy operations. However, the commander can only be effective once the pattern has been identified.

(a) The commander may consider using another technique to find the enemy. He can subdivide his area of operations into smaller ones and have the reconnaissance platoon reconnoiter forward of the remainder of the battalion (Figure 4-15). The reconnaissance platoon should be reinforced for this operation. In Figure 4-15, the platoon conducts a zone reconnaissance in AO Green while the remainder of the battalion conducts search and attack operations in AO Blue. At a designated time, the commander directs the

battalion to link up with the reconnaissance platoon at contact point 1 to exchange information. If necessary, the reconnaissance platoon guides the battalion to sites of suspected or confirmed enemy activity. The reconnaissance platoon can then move on to reconnoiter AO Red. (This process is repeated for other areas of operations until the commander stops it.) The commander may decide to emplace sensors, when available, along the border from AO Red to AO Blue to identify enemy attempts to evade the battalion. In Figure 4-15, a squad has been tasked to emplace and monitor the sensors.
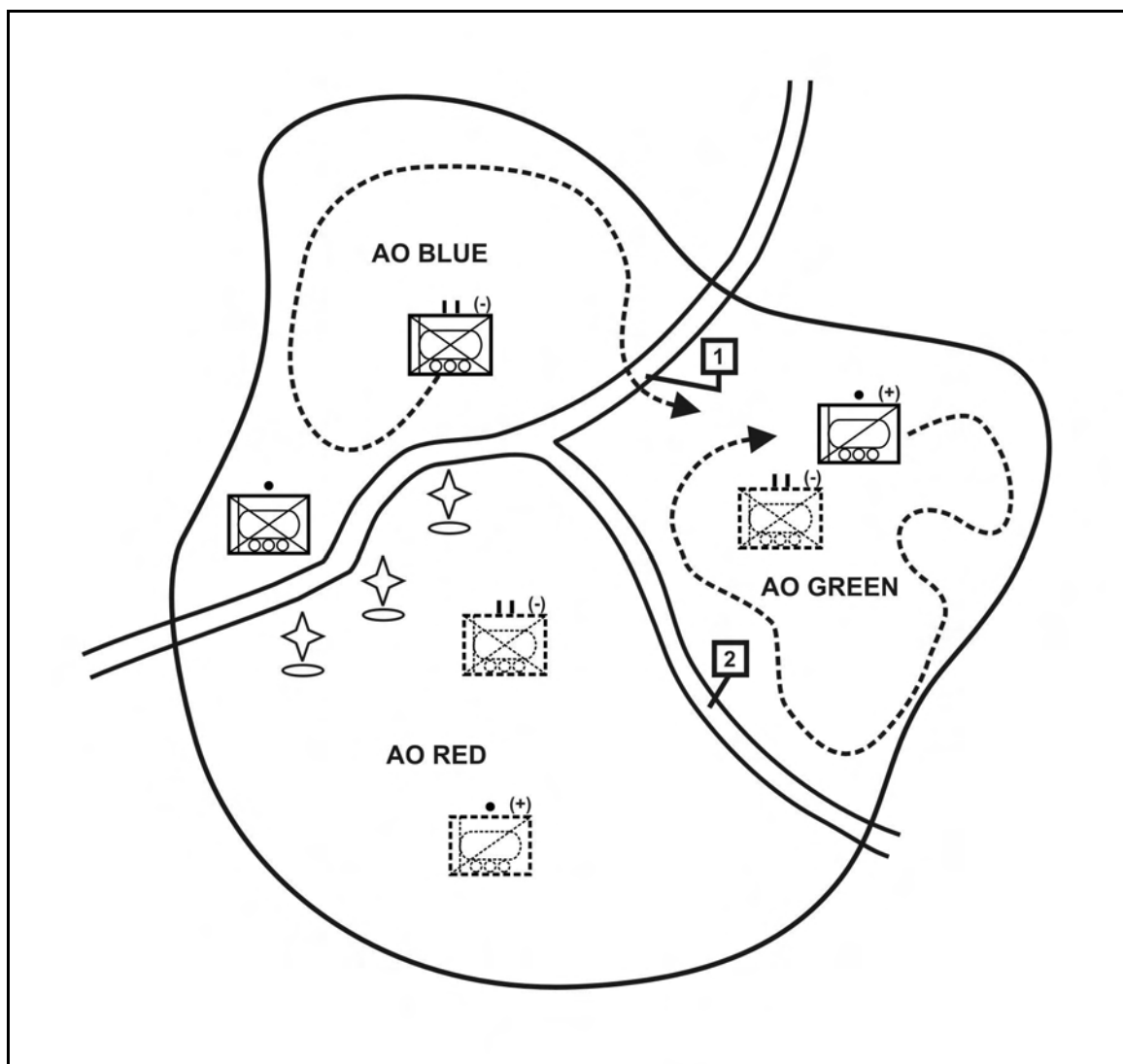
Figure 4-15. Example search and attack method with reconnaissance platoon forward.

(b) The successive method of reconnaissance just discussed in which the reconnaissance platoon reaches the area of operations before the remainder of the battalion, allows the reconnaissance platoon more opportunities to gain information on enemy activity in the area. It also helps the battalion commander focus his search and attack operation when the battalion moves to the new area. Cache or airdrop most often provides logistical support for the reinforced reconnaissance platoon.

(2) *Fixing the Enemy.* The unit conducts one of the following actions after developing the situation, based on the commander's guidance and on METT-TC factors.

(a) *Prepare to Block Enemy Escape and Reinforcement Routes.* The unit maintains contact and positions its forces to isolate and fix the enemy so another unit can attack. Control measures and communications must be established between closing units to prevent fratricide.

(b) *Conduct an Attack.* The unit conducts an attack when it is consistent with the commander's guidance and if the available friendly forces can generate enough relative combat power.

(c) *Maintain Surveillance.* The unit avoids detection so it can report enemy order of battle and activities. The unit must use stealth to be successful in this effort.

(d) *Remain Undetected and Follow the Enemy.* The unit does this to continue to gather information. It must be careful to avoid an enemy ambush.

(3) *Finishing the Enemy.* Battalions destroy enemy forces during a search and attack by doing the following:

(a) Conduct hasty or deliberate operations (attacks) or maneuver to block enemy escape routes while another unit conducts the attack.

(b) Conduct reconnaissance and surveillance activities and collect information to develop the situational template while remaining undetected.

(c) Employ indirect fire or CAS to destroy the enemy. The battalion may establish an area ambush and use these assets to drive the enemy into the ambush.

d. **Execution.** The commander must do the following to help ensure successful synchronized and decentralized operations:

(1) Specify where each unit will operate, establish measures to consolidate units before attacks, and establish fire control measures for each unit. The commander seeks the most likely locations of enemy base camps, supplies, command and control sites, and mortars. He designates the company most likely to make contact as the main effort and prepares to shift the main effort rapidly, if necessary.

(2) Concentrate battalion combat power. The commander does this so that once a patrol finds the enemy, the battalion can fix and destroy him rapidly.

(a) Each company operating in a dispersed company area of operations can be tasked to destroy the enemy within its capability. The battalion commander can direct each company to retain a reserve, or he can retain a battalion reserve. He tries to arrange for indirect fire weapons that can respond to all companies, as needed. He uses the reserve, priority of fire, and other available assets to weight the main effort.

(b) The battalion commander considers means to fix or contain the enemy if the company cannot destroy him. The commander uses the battalion reserve, indirect fires, or CAS to do this.

(3) Provide control, but allow for decentralized actions and small-unit initiative.

(4) Ensure CS assets support the main effort while remaining responsive to the rest of the battalion. Mortars remain general support (GS) to the battalion. If the mortar platoon cannot support the entire dispersed battalion, the commander may consider splitting the platoon into sections.

e. **Employment of Support Assets.** Synchronization of CS and CSS assets is more difficult to achieve in search-and-attack operations than in most other types of operations.

Distances between units, the terrain, and a vague enemy situation contribute to this difficulty. Combat and combat support assets are employed as follows.

(1) ***Antiarmor Assets.*** The antiarmor element, when available, selects TOW missile positions where it can provide direct fire support. Based on his estimate, the commander can use the MK 19 or the .50-caliber machine gun (in place of the TOW) against light vehicles, for convoy security, or in dismounted operations. However, the antiarmor platoon can also provide mobility and additional firepower for the reserve and, during limited visibility, can augment security forces at key locations, monitoring areas where the enemy is expected to travel at night.

(2) ***Mobile Gun System.*** The MGS can have great value during search-and-attack operations. It can be used in combat operations to assault, to support by fire the assault of an infantry unit, or to clear fields of fire around key defensive installations. The MGS is useful for finding and fixing the enemy, but in most types of terrain in which the battalion conducts search and attack (complex or urban), it has difficulty finishing the enemy.

(3) ***Artillery.*** The FSO prepares fire plans for attack contingencies and can request that a COLT team from brigade be attached to the main effort company. Mountainous terrain increases the need for combat aviation, close air, and mortar fire support. (See Appendix H, Aviation Support of Ground Operations.)

(4) ***Mortars.*** The priority of battalion mortars during the search and attack is normally to the main effort. Mortars usually collocate with another unit for security.

(5) ***Air Defense.*** The battalion can have Stingers or Avengers attached during a search and attack. In addition to providing security for the CP or moving with the main body, ADA elements can also operate from key terrain overwatching the route. If they do so, they must also have additional security.

(6) ***Engineers.*** Engineers provide advisers to help identify breach points in enemy defenses and methods. When the battalion has tanks available, engineers conduct route reconnaissance, determine bridge classifications, and find or make bypass routes where necessary. If demolitions or chainsaws are available, engineers can clear landing zones for helicopter support.

(7) ***Aviation.*** Aviation units (assault and attack) can reconnoiter, guide ground forces to the enemy, provide lift and fire support assets for air movement, direct artillery fires, aid command and control, and protect the flanks. Attack helicopters can reinforce when antiarmor firepower is used to block the enemy. See Appendix I, Air Assault Operations.

(8) ***Close Air Support.*** TACPs are located well forward to increase the speed and accuracy of CAS. To reduce the danger of fratricide, the battalion must issue aircraft identification panels or other means of identification to its soldiers.

(9) ***Command Posts.*** The commander positions himself to receive and transmit information during the search and attack. He plans ahead for shifting assets or committing the reserve. After a unit makes contact with the enemy, the commander must reach the critical point rapidly.

4-14. INTEGRATION OF CS AND CSS ELEMENTS IN MOVEMENT TO CONTACT

The battalion commander determines how to integrate and maximize the employment of additional combat enablers.

a. **Field Artillery.** Priority targets and FASCAM are allocated to the reconnaissance and security force and the advance guard. The SBCT positions field artillery units to provide continuous indirect fires for the moving battalion. Given the SBCT's emphasis on proactive counterfires and the likelihood for operating in close terrain, the battalion must rely on its organic mortars.

b. **Mortars.** The battalion mortars are placed under the operational control of the advance guard to reinforce the company's organic mortars and to provide responsive fires and smoke to support initial actions on contact.

c. **Air Force.** Close air support, if available, interdicts enemy counterattack forces or destroys defensive positions. (See Appendix H, Aviation Support of Ground Operations.)

d. **Air Defense Artillery.** ADA assets generally provide area coverage for the battalion and cover movement through restricted areas. However, some ADA assets may provide direct support for the advance guard. Regardless of the command relationship, ADA elements operate well forward on the battlefield.

e. **Engineers.** Priority of engineer support is to mobility. Elements of the supporting engineer unit join the reconnaissance and security force to reconnoiter obstacles. Engineers travel with the advance guard to assist in mobility of the advance guard and main body. Situational obstacles are planned to support the security forces and the advance guard.

f. **Combat Service Support.** The object of CSS operations is to provide support as close to the point of need as possible. The priority is to move Class V forward and to evacuate casualties. The ICVs allow commanders to cross level between and within companies rapidly. The BSB accomplishes its core functions through centralization of support, which provides the maneuver commander with increased efficiency and effectiveness in the flow of support and supplies. Centralized support also allows the forward support battalion (FSB) commander to weight the battle logistically or surge as required. The combat service support control system (CSSCS) and the near-real-time information provided by FBCB2 enhance centralization of support.

(1) In offensive operations, the BSB may push emergency resupply of Classes III and V forward to logistics release points (LRPs) as needed. The battalion commander, XO, and S4 may determine the mission requires additional support of Classes III and V, which can be pushed forward, uploaded, and positioned at the CTCP.

(2) Combat repair teams (CRTs) from the BSB are placed forward with each battalion under the operational control of the CTCP. The CRTs coordinate the evacuation of non-repairable equipment (due to time constraints or the lack of a required part) to the unit maintenance collection point (UMCP). UMCPs should locate on main axes or main supply routes. The S4 may request equipment transport vehicles to assist in rear evacuation and to maintain his ability to move forward supporting the battalion.

(3) The battalion medical platoon is equipped with three HMMWVs, a medical transport vehicle, and four medical evacuation vehicle (MEV) ambulance platforms to protect, support, and transport medical personnel and casualties to and from the battlefield. It habitually establishes the battalion aid station under the direction of the battalion TOC and CTCP and locates it where it can best support the battalion's operations. Company medical teams are generally attached to each company to provide medical coverage to each rifle platoon. The battalion medical platoon's evacuation squads are normally positioned forward with two of the rifle companies to augment the company

medical teams and assist with the evacuation of casualties. The maneuver company's 1SG has operational control of the squad(s). In the offense, the factors of METT-TC determine whether casualties are evacuated by ambulance to a casualty collection point or an ambulance exchange point. Medical personnel from the brigade support battalion dispatch ambulances forward to the AXP to receive and evacuate casualties from the battalion treatment squads.

(4) In offensive operations, it may not be possible to maintain the logistical lines of communication between echelons of support. Support elements must remain uploaded and ready to reposition as their battalion moves forward.

4-15. MOVEMENT TO CONTACT PLANNING CONSIDERATIONS

Planning movement to contact begins by developing the concept of the operation with the decisive point on the objective. It then works backward to the line of departure, while considering the conduct of the breach and the position of the support, assault, and breach assets.

a. **Reconnaissance and Surveillance.** The first consideration for a movement to contact is reconnaissance and surveillance planning. The SBCT plays a major role based on the assets available and its links to division and higher assets. The battalion is one of several elements executing the SBCT's reconnaissance and surveillance plan.

(1) The first priority is to determine anticipated enemy locations, strengths, and actions. Potential enemy mission, intent, objectives, defensive locations, use of key terrain, avenues of approach and routes, engagement areas, and obstacles are among the items that must be identified early and incorporated into the reconnaissance and surveillance plan. Because the SBCT is filling information gaps and establishing conditions for gaining information dominance, this is a period of intense use of information systems. Intelligence information must be gathered, analyzed, fused, and shared on a timely basis with those who can act upon the information. This information, available to the battalion through ASAS, must be distributed throughout the battalion.

(2) Various elements within the battalion conduct reconnaissance and surveillance operations.

(a) *Reconnaissance Platoon.* The reconnaissance platoon has the soldiers that are best trained to function as the "eyes and ears" for the battalion and is the element that can be committed the quickest. The battalion reconnaissance element's primary role is to monitor NAIs and TAIs between itself and the SBCT cavalry squadron (RSTA) troops. It is also used to confirm and identify enemy locations, orientations, and dispositions. Before, during, and after the movement to contact, it reports its observations and significant changes in enemy activity.

(b) *Ground Surveillance Radar.* GSR detects moving vehicles and personnel in open terrain at long ranges and provides information on the number, location, disposition, and types of targets. Normally, GSR covers open, high-speed approaches where early detection is critical. It also monitors defiles and detects enemy reconnaissance elements using oblique shots across the battalion's sector along open, flat areas. The integration of GSR allows the reconnaissance platoon to focus on complex, urban, close, and restricted terrain.

(c) *Remote Sensors.* Remote sensors are assets that belong to units outside the battalion, but they are frequently placed in DS of the battalion. These assets must be

emplaced and monitored with the information going to the battalion S2 who relays it to higher headquarters.

(d) *Snipers and Other Individual Weapon Platforms.* Each weapon platform, especially during patrolling or manning observation points, is a source of information that needs to be integrated into the overall ISR effort. The sniper squad is trained and well equipped to man OPs in support of the reconnaissance and surveillance effort. (See Appendix C, Sniper Employment.)

(3) Relevant and rapid information exchange between the battalion and the SBCT is required. ISR actions result in information dominance and, once established, can convert the movement to contact into an attack.

b. **Maneuver.** The battalion plan for a movement to contact 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.

(1) In developing his concept, the commander anticipates where he is likely to meet the enemy and then determines how he intends to develop the situation that leads to an attack under favorable conditions. The commander focuses on determining the battalion's organization and formation that best retains his freedom of action upon contact and supports his concept against known or anticipated enemy forces.

(2) The commander and his staff develop plans for the maneuver options of attack, report and bypass, defense, and retrograde based on the higher commander's intent and the situation. They define the conditions in terms of the 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. He 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 larger or more stubborn enemy forces are best bypassed and destroyed by the main body.

(3) Areas of likely contact, known enemy positions, and areas that are potentially dangerous to the battalion (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.

(4) The scheme of maneuver covers the battalion's actions from LD to occupation of the final objective or limit of advance. The scheme of maneuver specifically addresses--

- Actions at known or likely enemy locations.
- Methods for moving through and crossing dangerous areas.
- The battalion's formation and known locations where the formation will change.
- Actions and array of forces at the final objective or LOA.
- Decision points and criteria for execution of maneuver options that may develop during execution.

(5) The following are the fundamentals that guide the commander in developing the scheme of maneuver for a movement to contact.

(a) Focus all efforts on finding the enemy by developing a strong reconnaissance, surveillance, and target acquisition effort and through the employment of robust security forces.

(b) If at all possible, make contact with electronic means first. If that is not possible, then make contact with the smallest force possible, consistent with protecting the force.

(c) 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.

(d) Task-organize the force and use movement formations that enable the battalion to deploy and attack rapidly in any direction.

(e) Maintain the ability to mass fires rapidly in any direction.

(f) Keep forces within supporting distances to facilitate a flexible response.

(g) Maintain contact, once gained, regardless of the maneuver option adopted.

(h) Rely on SOPs and drills to develop the situation and maintain tempo. The swift massing of all available combat power against the enemy once contact is made is key to success.

(i) 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 upon where engagements are likely.

c. **Fire Support.** The following are key considerations for the fire support (FS) plan.

(1) Facilitate responsive and decentralized fires by a clear understanding of the essential fire support tasks for each phase of the operation. This understanding is critical to the success of the FS plan. Once the battalion makes contact, it shifts control of all available fires to the observer who is in the best position to control fires against the enemy.

(2) 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.

(3) Maximize the use of priority targets along the axis of advance. Plan triggers to put these targets into effect and cancel them based on the movement of the battalion.

(4) Ensure immediately responsive fire support to the lead elements by assigning priority of fires to the advance guard.

(5) Position observers 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 fires and effects tasks (EFETs)) for each phase of the operation.

(6) Synchronize the movement and positioning of artillery and mortars with the tempo of the battalion and the FS requirements.

d. **Engineer Support.** The following are key considerations for the scheme of engineer operations.

(1) Task-organize engineer forces well-forward to support potential breaching operations.

(2) Use the advance guard, which is normally the priority for support, to task-organize with additional mobility assets and engineer forces.

(3) Ensure the reconnaissance plan integrates the collection of obstacle and terrain intelligence.

(4) Maintain the flexibility to mass engineers to breach complex obstacles.

(5) Plan obstacle belts, 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.

(6) Develop plans for the handoff of marked obstacles, lanes, and bypasses.

(7) Consider the requirement for route maintenance, clearance, and repair.

e. **Nuclear, Biological, Chemical Support.** The following are key considerations for NBC planning. (See Appendix J, Operations in Nuclear, Biological, and Chemical Conditions.)

(1) Ensure the reconnaissance platoon is prepared for NBC reconnaissance tasks.

(2) Disseminate NBC threats, once detected, immediately throughout the SBCT.

(3) Integrate and synchronize the use of smoke to support critical actions such as breaching or assaults. Ensure artillery and mortar smoke complement each other.

(4) Develop decontamination plans based on the commander's priorities and vulnerability analysis. Disseminate planned and active sites via FBCB2.

f. **Combat Service Support.** The following are key considerations for the CSS plan.

(1) Continuously update the CSS plan based on near-real-time status of units. Ensure the CSS plan is responsive and flexible enough to support all maneuver options. Plan support from initiation of the operation to the point of transition.

(2) Support the battalion using the brigade support battalion for Class I, Class II, Class V, medical, and maintenance and repair parts support.

(3) Weight the risks that extended distances create for security of MSRs and CSS assets based on the potential of undetected or bypassed enemy forces.

(4) Use all available assets to develop and maintain an accurate enemy picture behind the lead maneuver elements.

(5) Plan and rehearse for enemy contact.

(6) Plan and coordinate the locations, displacements, and routes of CSS assets to maintain responsive support.

(7) Plan and coordinate for aerial resupply.

g. **Preparation.** During preparation, the battalion continues progress toward establishing information dominance. The primary concerns are that the battalion commander and staff receive the latest information and that plans are updated to reflect the changes. The battalion commander must ensure that his subordinates understand his concept and intent and their individual missions as new information becomes available. He normally uses backbriefs and rehearsals to ensure his intent is understood and all actions are integrated and synchronized. Simple, flexible plans that rely on SOPs and are rehearsed repetitively against various enemy conditions are essential to success.

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

i. **Rehearsals.** The battalion's leadership rehearses 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 is to rehearse the battalion's subordinate

commanders on potential situations that may arise during execution and force them to make decisions under the anticipated conditions of the battle. 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. Often, due to time constraints, the commander prioritizes the maneuver options and enemy COAs to be rehearsed based on the time available. The rehearsal focuses on 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 and surveillance 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.
- Actions to report and bypass an enemy force (based on the bypass criteria).
- Transition into a maneuver option.

   j. **Continuous Reconnaissance and Surveillance.** The SBCT ISR effort is on going during the preparation for the movement to contact. The primary focus of the reconnaissance and surveillance effort is to locate the enemy.

   (1) *Locate the Enemy.* The SBCT cavalry squadron (RSTA), supported by higher-level collection assets, seeks to locate the enemy well ahead of the SBCT. This provides the SBCT time to update plans, attack the enemy deep in the SBCT's AO, select favorable terrain and positions for the direct fire engagement, position observers, and deploy prior to contact.

   (a) When they detect enemy forces, reconnaissance and surveillance assets shift to determine the full extent of the enemy's strength and disposition. Reconnaissance assets gather vital information on the enemy force and attempt to determine the enemy force's vulnerabilities, such as an exposed flank. The SBCT will hand over located enemy positions in the battalion's area to the battalion reconnaissance platoon. If the reconnaissance platoon encounters obstacles, it determines size, location, and composition and seeks bypasses. If it finds a bypass, the reconnaissance elements assist in guiding following units to the bypass. If it cannot find a bypass, the reconnaissance platoon advises the commander on locations for a breach and assists in guiding forces to the breach site.

   (b) The battalion advance guard maintains contact with the battalion reconnaissance platoon to coordinate combat actions and exchange information. As the battalion reconnaissance platoon locates enemy positions, it hands these locations off to the advance guard. In some cases, elements of the battalion reconnaissance platoon maintain contact with the enemy and guide the advance guard maneuver forces. Regardless of the technique used, these actions should be rehearsed and closely coordinated during execution to prevent fratricide and confusion.

(2) ***Support the Battalion's Movement.*** Due to the need to maintain a rapid tempo, the battalion reconnaissance platoon emphasizes terrain and obstacle reconnaissance primarily focused along the battalion's axis of advance. The reconnaissance platoon seeks to identify and confirm restricted terrain, trafficability of roads and routes, conditions of bridges, and locations of fording sites. The platoon also reconnoiters potentially dangerous areas such as obstacles, defiles, likely enemy positions, or possible ambush sites. If the battalion reconnaissance platoon cannot clear these areas, the advance guard must assume a more deliberate movement technique.

(3) ***Support Actions upon Contact.*** Once a reconnaissance and surveillance element locates an enemy force, the battalion continuously observes it. Reconnaissance assets assist friendly forces by guiding them along the best routes to engage the enemy. As contact develops, reconnaissance assets report enemy actions and battle damage assessment.

4-16. EXECUTION OF MOVEMENT TO CONTACT

The battalion moves rapidly to maintain the advantage of a rapid tempo. However, the commander must balance the need for speed with the requirement for security. He bases this decision on the effectiveness of the reconnaissance and surveillance effort, friendly mobility, effects of terrain, and the enemy's capabilities. The information available within battalion and subordinate companies allows close tracking of the movement and location of the battalion units. Location and movement of the security forces are continually monitored through FBCB2 to ensure adequate security for the main body and to ensure the security forces are within supporting range of the main body, mortars, and artillery. The movement of CS and CSS units is controlled by their parent organizations, which adjust their movements to meet support requirements, avoid congestion of routes, and ensure responsiveness.

a. **Actions at Obstacles.** Obstacles pose a significant threat to the battalion's momentum because the battalion's ability to breach obstacles is limited.

(1) Once a battalion element detects an obstacle, it immediately distributes its location and description digitally throughout the battalion. The battalion quickly seeks a secure and favorable bypass. If a bypass is available, the unit in contact with the obstacle exploits and marks the bypass; it also digitally distributes the bypass around the obstacle as soon as possible. Enemy forces normally overwatch obstacles. Units should approach all obstacles and restricted terrain with the same diligence with which they approach a known enemy position.

(2) When the battalion must breach, it maneuvers to suppress and obscure any enemy forces overwatching the obstacle and then reduces the obstacle to support its movement. Engineer forces from the main body support the breach effort by creating lanes, improving the marking of lanes, and guiding the main body through the obstacle.

b. **Destruction of Enemy Forces.** The battalion destroys enemy forces with a combination of indirect fires and maneuver.

(1) Depending on the commander's bypass criteria, the advance guard may fix company- or smaller-size enemy forces identified by the reconnaissance and surveillance force. Once it fixes the enemy, the advance guard leaves a combat force to contain the enemy until the main body can destroy it.

(2) The advance guard must provide the location of such a fixed enemy force to the battalion S2, who then distributes the information to all units in the battalion via digital means. Detailed cross-talk between main body and fixing force commanders is critical to coordinate actions and avoid fratricide. The fixing force 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.

c. **Report and Bypass.** When conducting a movement to contact as part of a larger force, the higher commander establishes bypass criteria that allow the battalion to report and bypass enemy forces of a specific size.

(1) When an enemy force meets the 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.

(2) Bypassed forces present a serious threat to forces that follow the maneuver elements, especially CSS elements. It is imperative that the bypassed enemy forces' locations and strengths be distributed throughout the battalion to enable following units to move around these threats.

d. **Meeting Engagement.** A meeting engagement is a combat action that occurs when the battalion, not completely deployed for battle, collides with and engages a sizable enemy force at an unexpected time and place. The enemy force may be moving or stationary. A meeting engagement results from ineffective reconnaissance and is most probable during a movement to contact. The goal, once in contact, is to maneuver quickly to overcome the enemy before he can react. This requires the commander to keep his 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 position to act effectively. The battalion's success depends on its subordinate units' ability to effectively develop the situation. The steps to accomplish this follow.

(1) Usually, the reconnaissance and surveillance force makes initial contact. They must quickly determine the size and activity of the enemy force and avoid being fixed or destroyed. If possible, the reconnaissance and surveillance force avoids detection.

(2) If the enemy is moving, the reconnaissance and surveillance force determines the direction of movement and the size and composition of the force. The reconnaissance and surveillance force's observers place fires on the lead enemy forces. Speed of decision and execution is critical when the enemy is moving.

(3) If the enemy is stationary, the reconnaissance and surveillance force determines whether the enemy is occupying prepared positions and is reinforced by obstacles and minefields. The reconnaissance and surveillance force attempts to identify antitank weapon positions, the enemy's flanks, and gaps in his positions.

(4) The advance guard moves quickly to overpower and destroy platoon-size and smaller security forces. Larger 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.

(5) In developing the situation, the advance guard commander maintains pressure on the enemy by fire and maneuver. He 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 battalion commander.

(6) 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.

e. **Maneuver Options.** It is paramount that the battalion commander has timely intelligence so he can select the appropriate fire and maneuver option. Normally, the commander makes the final decision for execution of a maneuver option based on the progress of the initial engagement of the advance guard. The movement to contact generally ends with the commitment of the main body. The following paragraphs provide a general description of the options that may develop after a movement to contact.

(1) *Bypass.* If rapid forward movement is required, and if the SBCT commander has authorized bypass of enemy forces, the battalion can bypass. If the size and mobility of the bypassed force represents a threat, the battalion must fix or contain the enemy force until released by the SBCT.

(2) *Hasty Ambush.* 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 entire battalion) moves into hasty firing positions oriented on an engagement area. This option is enabled by the information available from FBCB2 and the speed and accuracy with which FRAGOs and other instructions can be passed. When most of the enemy is in the engagement area, the battalion uses massed fires and maneuver to attack the enemy.

(3) *Attack.* The battalion commander directs an attack when the battalion has greater combat power than the enemy does or when he assesses that the battalion can reach a decisive outcome. The commander quickly develops a scheme of maneuver and concept of fires for the attack and digitally distributes orders to subordinate companies. The commander employs fires, CAS, and situational obstacles. He controls the movement, deployment, and possible changes in the task organization of the battalion forces.

(a) The envelopment is normally the most desirable form of maneuver and is used when there is sufficient maneuver space. Normally, the commander seeks to envelop the enemy force by fixing or blocking the bulk of the enemy force and then attacking a vulnerable flank.

(b) 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 battalion may continue the movement to contact or execute other missions as directed by the SBCT commander.

(4) *Defend.* The battalion commander directs a defense (Figure 4-16) when the battalion has insufficient combat power to attack or when the enemy's strength forces the battalion to halt and prepare for a more deliberate attack. The battalion maneuvers to the best available defensible terrain--either to the front or rear. The commander may direct the advance guard or another security force to delay an enemy attack to provide time for deployment of the battalion. Companies quickly deploy, establish security, array forces, and develop fire plans. Special emphasis is placed on flank protection and adjacent unit coordination. As the enemy attacks, the 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 battalion may need to retain its position to allow the SBCT commander time to commit additional forces.
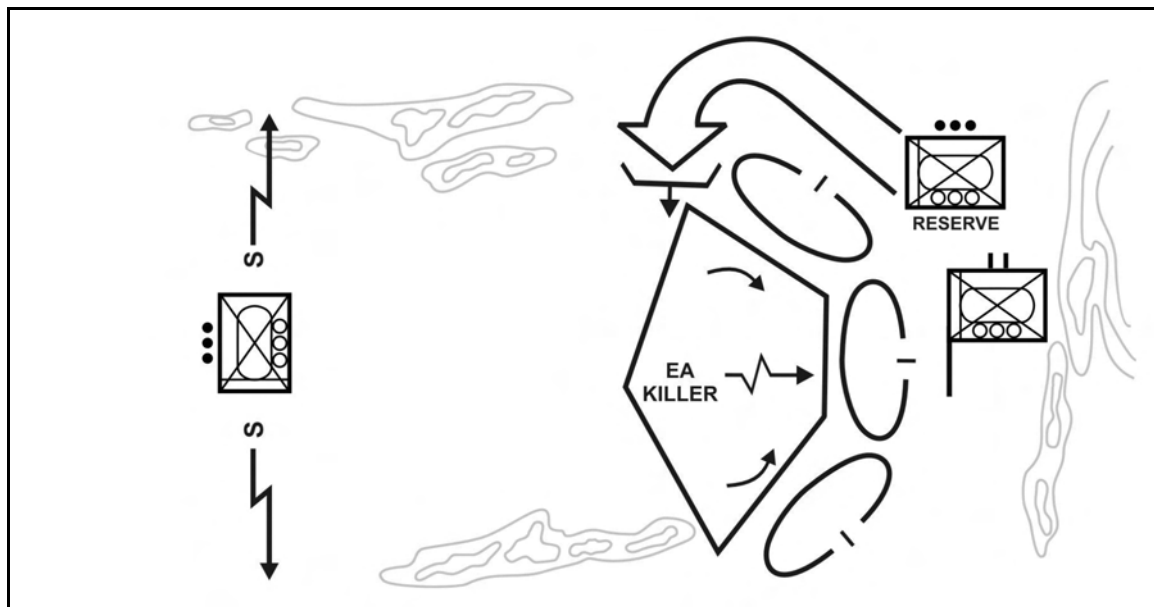
Figure 4-16. Concept of the defense.

(5) *Retrograde.* The battalion commander directs a retrograde (Figure 4-17, page 4-38) when the battalion lacks the combat power to attack or defend, improve a tactical situation, or prevent a worse one from developing. Lead elements of the battalion establish initial defensive positions while nonessential CS and CSS assets reposition to the rear. Indirect fires, obstacles, and smoke are employed to assist forward elements with disengagement and displacement. Battalions in contact avoid becoming decisively engaged.
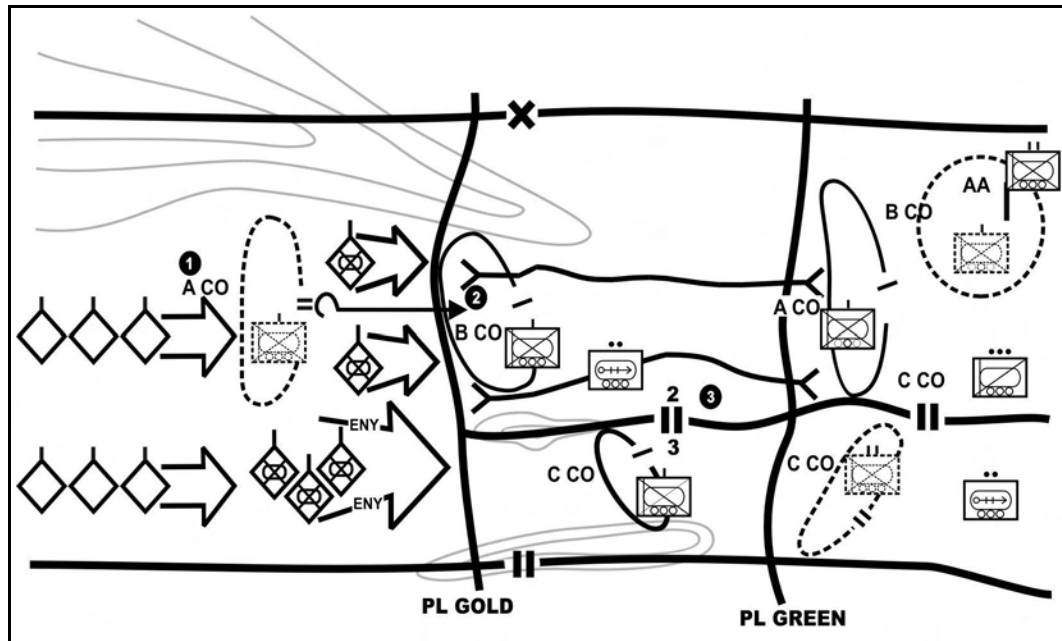
Figure 4-17. Battalion in retrograde.

4-17. ATTACKS

Attacks range along a continuum defined at one end by fragmentary orders that direct the rapid execution of battle drills by forces immediately available and at the other end by detailed plans and orders. These attacks rely more on an implicit understanding than on electronic communication with detailed orders and appropriate branches and sequels that make understanding explicit. At one extreme of the continuum, the battalion discovers the general enemy situation through a movement to contact 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 extreme of the continuum, the battalion moves into an attack from a reserve position or assembly area with detailed knowledge of the enemy, a task organization designed specifically for the attack, and a fully rehearsed plan. Most attacks fall somewhere between the two ends of the continuum.

4-18. CHARACTERISTICS OF THE ATTACK

An attack at the battalion level is a type of offensive action characterized by close combat, direct fire, and maneuver and is supported by indirect fires. When the battalion commander decides to attack, he must mass the effects of overwhelming combat power against a portion (or portions) of the enemy force with a tempo and intensity that the enemy cannot match. Information dominance enables the battalion commander to move out of contact and choose the places where he wants 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. 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.

a. **Objectives.** A terrain-oriented objective requires the battalion to seize and retain a designated geographical area. A force-oriented objective requires the battalion to focus its efforts on a designated enemy force. The enemy force may be stationary or moving. All attacks depend on synchronization for success. They require planning, coordination via digital or analog means, and time to prepare.

b. **Digital Systems and Sensors.** By properly leveraging digital systems and sensors, the battalion commander and staff are able to obtain near-real-time knowledge of enemy composition, locations, activity, and probable intentions. The information systems available to the battalion facilitate detailed planning, but the substance of sound planning depends on the abilities of a well-trained commander and staff. With the information available, the battalion commander is better able to war-game and plan his actions against an enemy force from either stationary or moving C2 platforms. While the battalion plans, the enemy will improve his defenses, disengage, or conduct spoiling attacks of his own. Clearly, planning must be accomplished in the shortest time possible and must accommodate the changes driven by what the enemy does.

c. **Parallel Planning.** The battalion commander and his staff translate the assigned mission from the SBCT into specific missions for subordinate companies. The staff immediately forwards these missions, along with the appropriate portions of the SBCT's plans and orders, digitally to subordinate companies to facilitate parallel planning. Commanders at all levels work together to develop the best plans. This requires sharing information freely between the command posts. The goal is not just to reduce the time required to produce and distribute the plans; the real goal is to produce a better plan by including input from adjacent, higher, and lower elements. Additionally, this collaboration promotes buy-in and understanding of the plan, thereby enhancing preparation and execution.

4-19. FORCE-ORIENTED ATTACK AGAINST A STATIONARY ENEMY FORCE

The battalion may attack a stationary enemy force as part of a counterattack, spoiling attack, or as an initial attack against an enemy defense. The battalion may also attack a stationary force as part of an SBCT movement to contact or exploitation.

a. **Planning.** The focus of planning is to develop a fully synchronized plan that masses all available combat power against the enemy.

b. **Scheme of Maneuver.** The battalion 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 so doing, the battalion retains the initiative and reduces its own vulnerabilities.

(1) 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 he can exploit to gain a tactical advantage. When attacking a well-prepared enemy defense, the commander normally plans 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 assembly area. They incorporate plans for exploiting success and opportunities that may develop during execution. They emphasize synchronization of mounted and dismounted movement, maneuver, fires, and support throughout the attack.

(2) The commander and staff must consider the enemy's strength and obstacles to determine when and where the battalion may need breaching operations. The size of the enemy force overwatching the obstacle drives the type of breach the battalion conducts and whether the battalion can conduct a successful breaching operation. The commander and staff consider the enemy's ability to mass combat power, reposition his forces, or commit his reserve. The battalion then develops a scheme of maneuver to mass sufficient combat power at an enemy weakness. The location selected for breaching and penetration depends largely on a weakness in the enemy's defense, where its covering fires are limited.

(3) Because of the combat power associated with a three-company battalion, especially a Stryker battalion, additional task organization of forces from the SBCT may be required for breaching operations. Should the SBCT decide to task-organize the battalion with four companies and engineers, this four-company battalion has sufficient combined arms combat power to attack and breach an obstacle defended by an enemy company.

(4) The reverse planning process is an essential tool in building an effective plan to attack a defending enemy. By starting with actions on the objective and working back to the line of departure, the staff can allocate combat power, mobility assets, and indirect fires (suppression and obscuration).

c. **Fire Support.** The following are considerations for the FS plan:

- Position fire support 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 suppress, neutralize, and destroy 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 (CFZs) to protect critical actions such as support forces, breaching efforts, and artillery assets.

d. **Engineer Support.** Maintaining the mobility of the battalion in offensive operations is critical. The battalion engineer must plan and allocate mobility resources to the security forces (reconnaissance and surveillance and advance guard) and to the main body. The security force has just enough mobility resources to cover its own movement and to complete the reconnaissance mission. The advance guard needs enough resources to conduct breaching operations, such as opening lanes through obstacles for the main body to pass. If the obstacle is dense or covered by a relatively larger force, the main body deploys to conduct a breaching operation. Engineer task organization is based on supporting battalion in-stride breaching operations with minimal engineer assets under battalion control to transition to a battalion deliberate breach, if needed. The battalion uses situational obstacles to attack an enemy's vulnerability or a specific course of action

and can use mobile obstacle detachments to help secure the battalion flanks. The following are considerations for the scheme of engineer operations:

- Plan for adjustment of the breach location based on the latest obstacle intelligence.
- Ensure information on obstacles receives immediate battalion-wide dissemination including supporting CS and CSS platforms and units.
- Ensure digital topographic support system (DTSS) products are available and distributed on point of penetration, planned breach locations, and possible bypasses.
- Ensure adequate mobility support is task-organized well forward during the approach to the objective to support breaching requirements.
- Mass engineers to support breaching operations.
- Support assaulting forces with engineers to breach enemy protective obstacles.
- Ensure adequate guides, traffic control, and lane improvements to support movement of follow-on forces and CSS traffic.
- Use situational obstacles for flank security.

e. **Air Defense Support.** In offensive operations, air defense units move to the position from which they can best protect the battalion. The enemy uses helicopters primarily against armored forces. An Avenger or Linebacker element may provide direct support coverage to the battalion. Priorities for protection may include companies, fire support, engineer elements, command and control nodes, and logistics assets. ADA coverage is increased in areas and activities most vulnerable to air attack, such as breaching operations or movements through restricted terrain.

f. **Nuclear, Biological, Chemical Support.** The following are considerations for NBC support:

(1) The reconnaissance platoon should be prepared for NBC reconnaissance tasks.

(2) Disseminate any detected NBC threats throughout the battalion immediately via FBCB2 and FM voice.

(3) Integrate and synchronize the use of smoke to support critical actions such as breaching or assaults. Ensure artillery, mortar, and mechanical smoke are complementary.

(4) Develop decontamination plans based on the commander's priorities and vulnerability analysis. Disseminate planned and active decontamination sites via FBCB2.

g. **Combat Service Support.** The following are considerations for the CSS plan:

(1) Integrate the movement and positioning of CSS assets with the scheme of maneuver to ensure immediate support of anticipated requirements.

(2) Ensure adequate CSS support to the reconnaissance and surveillance effort. The S4 must plan well and integrate timely resupply and evacuation support of forward reconnaissance and surveillance assets into the reconnaissance and surveillance plan. He focuses on medical evacuation, especially air evacuation.

(3) Plan immediate support to high-risk operations such as breaching or assaults through the forward positioning of support assets.

(4) Plan for reorganization on or near the objective once the battalion secures the objective. Articulate clear priorities of support during reorganization.

h. **Preparation.** 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 companies maximum time to prepare. Subordinates conduct parallel planning as well as start their preparation for the attack immediately after the battalion issues a FRAGO. As more intelligence becomes available, the battalion commander revises orders and distributes them via FBCB2, thereby giving subordinates more time to prepare for the attack. Regardless of the time available, the commander must conduct detailed planning and supervision of subordinate preparations.

i.   **Inspections.** The commander supervises subordinate troop-leading procedures to ensure planning and preparations are on track and consistent with his intent. The commander may inspect subordinate unit order briefs and rehearsals. He focuses his inspections on the main effort and critical events such as assaults, breaching operations, and passage of lines. Since the commander cannot be everywhere at once, he maximizes the use of other key leaders and technology to assist him. Subordinate orders, provided digitally back to the battalion staff, allow the staff to check to ensure they are consistent with the battalion plans.

j.   **Rehearsals.** The battalion usually conducts rehearsals, but the type and technique may vary based on time available. During the combined-arms rehearsal, the battalion S2 portrays a thinking, uncooperative enemy with emphasis on enemy repositioning, employment of fires, and commitment of reserves. The primary focus of the rehearsal is actions on the objective. Each subordinate commander addresses the conduct of his mission as the rehearsal progresses. The rehearsal places special emphasis on timing of actions and the coordinated maneuver of forces. All subordinate commanders must accurately portray how long it takes to complete assigned tasks and how much space is required by their force. Direct and indirect fire plans are covered in great detail, to include the massing, distribution, shifting, lifting, and control of fires. The commander ensures subordinate plans are coordinated and consistent with his intent. The rehearsal also covers the following:

- Plans to execute follow-on missions or exploit success.
- Likely times and locations where a reserve is needed.
- Execution of the FS plan, to include shifting of fires, employment of CAS, adjusting of FSCMs, and positioning of observers.
- Breaching operations.
- Passage of lines.
- Contingency plans for actions against enemy counterattacks, repositioning, commitment of reserves, or use of NBC capabilities.
- Consolidation and reorganization.
- Execution of branches or sequels assigned by SBCT.
- Execution of the CSS plan, to include UMCP, CASEVAC, movement of combat trains, and emergency resupply usage and movement.

k.   **Reconnaissance and Surveillance.** Effective and current intelligence is a prerequisite for a successful attack.

(1) Before mounting an attack, the commander needs to determine the enemy's strength and disposition. During hasty operations the entire intelligence collection, analysis, and dissemination process must rapidly respond to the commander's critical information requirements. The SBCT provides most of the information available to the

battalion commander and staff through ASAS. The commander must receive an accurate picture of the enemy's defense so he can decide on a COA and act faster than the enemy can react.

(2) When preparing for a deliberate operation, the commander and staff participate in development of the SBCT's reconnaissance and surveillance 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 SBCT and correspondingly from the SBCT to the battalions. The battalion commander uses this intelligence to decide on a COA and make refinements to the plan. The reconnaissance and surveillance effort also provides him with continuous updates during the attack so he can adjust execution of the operation based on the enemy's reactions.

l. **Enemy's Current Array of Forces.** The intelligence available to the battalion comes from a continuous stream of information that begins with national assets that funnel down to the SBCT and then to the battalion.

(1) The first priority is to confirm information available on the enemy's strength, composition, and disposition. The next priorities are the effects of weather and terrain and how the enemy is likely to fight. The S2 attempts to identify what the enemy will do and what information the battalion needs to confirm the enemy's action. The battalion reconnaissance and surveillance effort focuses on identifying indicators required for confirming the enemy's actual COA. This information is vital for developing and refining plans. Ideally, the battalion does not make final decisions on how to execute the attack until it can identify the current array of enemy forces. Key areas to identify for a defending enemy force include--

- Composition, disposition, and strength of enemy forces along a flank or at an area selected for penetration.
- Composition, strength, and disposition of security forces.
- Location, orientation, type, depth, and composition of obstacles.
- Locations of secure bypasses around obstacles.
- Composition, strength, and disposition of defending combat formations within the enemy's main battle area (MBA).
- Composition, strength, and location of reserves.
- Location of routes the enemy may use to counterattack or reinforce his defense.
- Type of enemy fortifications and survivability effort.

(2) Reconnaissance forces patrol to collect information. As time permits, reconnaissance and surveillance assets observe the enemy defense from advantageous positions (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 S2 must discern any enemy deception efforts such as phony obstacles, dummy emplacements, and deception positions designed to confuse an attacker.

m. **Enemy Engagement Areas.** The battalion commander, supported by the S2, seeks to define the limits of the enemy engagement areas. This includes where the enemy can mass fires, weapon ranges, direct fire integration with obstacles, ability to shift fires, and 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 fire plan assists the commander in determining when the battalion must deploy, how to time and use indirect fires, and how feasible his scheme of maneuver is. The use of long-range indirect fires allows the commander to shape what the enemy can do relative to engagement areas. Key to such actions is the emplacement of obstacles.

n. **Enemy's Vulnerabilities.** The overall ISR effort also seeks to identify enemy vulnerabilities that may include--

- 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.
- Weak obstacles or fortifications in an enemy defense, especially along a flank.

o. **Support on the Approach to the Objective.** Reconnaissance elements initially focus on the enemy's security forces forward of his main defense to locate enemy positions and obstacles along the battalion's planned routes of advance. Reconnaissance forces also locate gaps and routes that allow them to infiltrate into the enemy main defensive area or rear area. The reconnaissance and surveillance effort seeks to locate enemy forces that may reposition and affect the battalion's approach to the enemy's main defense. Successful attacks depend on reconnaissance forces to direct indirect fires on targets in the enemy's rear that isolate the enemy front line forces and prevent them from being reinforced. A rapid secure advance to the enemy's main defense depends on the reconnaissance effort to locate enemy security forces and obstacles.

p. **Execution.** The battalion commander positions reconnaissance and surveillance assets to maintain observation of enemy reactions to the battalion's maneuver on the objective. Reconnaissance assets focus on areas that the enemy will likely use to reposition forces, commit reserves, and counterattack. As the engagement on the objective develops, reconnaissance forces report enemy reactions, repositioning, and BDA. Again, reconnaissance elements target and engage with indirect fires enemy repositioning forces, reserves, counterattacking forces, and other high-payoff targets. Early identification of enemy reactions is essential for the battalion to maintain the momentum and initiative during the attack.

(1) *Approach to the Objective.* During the approach, the battalion is prepared to--

- Bypass or breach obstacles.
- React to artillery, chemical strikes, air attack, and electronic warfare (EW).
- Transition to different formations based on the terrain and enemy situation.
- Employ forces to screen or guard flanks that may become exposed or threatened during the approach.
- Avoid terrain features that are likely enemy artillery reference points, locations for chemical strikes, or locations for situational obstacles.
- Destroy or force the withdrawal of opposing enemy security forces.
- Minimize the effects of enemy deception.

(a) When the situation permits, a defending enemy generally establishes a security area around his 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 his doctrine or pattern of operations. The battalion 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.

(b) The battalion must maintain a steady controlled movement. Speed and dispersion, facilitated by information dominance, 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.

(2) *Actions on the Objective.* The battalion 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 and then rupture a small vulnerable portion of the enemy's defense to gain a flank or create a penetration. The battalion achieves final destruction of the enemy force through the attack of assaulting forces.

(3) *Fires.* 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.

(a) Initially, preparatory fires focus on the destruction of key enemy forces that can most affect the scheme of maneuver. For example, during an attack to penetrate an enemy defense, the initial focus of preparatory fires is to destroy the enemy positions at the selected point of penetration. Preparatory fires may also--

- Weaken or neutralize enemy reserves.
- Emplace artillery-delivered situational obstacles to block enemy reserve routes into the objective.
- Deceive the enemy as to the battalion's actual intentions.
- Destroy enemy security forces.
- Obscure friendly movements and deployment.

(b) The synchronization 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 a secure closure by the maneuver force on the enemy's positions. The COP provides maneuver force locations and allows their movement to be timed so that they can rapidly close on the enemy's position with minimum exposure to enemy fires. The commander must monitor the success of the preparatory fires to determine whether adequate conditions exist for commitment of the force. Reconnaissance and surveillance elements provide BDA to the commander to assist him in making this decision. The commander may need to adjust the tempo of the battalion's approach to the objective.

(4) *Fix the Enemy.* The battalion can fix the bulk of the enemy forces into given positions or pursue a COA that limits the options available to the enemy.

(a) 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.

(b) A company normally fixes the enemy force by attacking an objective(s) that isolates a portion of the enemy's defense. In open terrain, the most common task for the supporting 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. Demonstrations and feints may also fix the enemy. The use of fires and CAS is vital in attacking enemy forces and reserves in depth to prevent their commitment against the battalion.

(c) Before commitment, forces remain dispersed and outside the enemy's direct fire range, and they 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 the enemy locations and conditions. The S2 should have an updated intelligence summary available just prior to the battalion crossing the LD. The commander uses assault positions, phase lines, a terrain index reference system (TIRS), or checkpoints to control the positioning of the forces not yet committed. Commanders throughout the battalion continuously assess the situation. Subordinate commanders anticipate decisions by the battalion commander based on the COP. The commander commits subordinate forces when the desired levels of enemy suppression, destruction, and obscuration are achieved. Timely reporting, cross-talk, accurate assessments, and sharing of information by subordinate commanders are paramount to the success of the operation.

(5) *Decisive Maneuver.* The attacker must be agile enough to concentrate his forces and mass his combat power by decisive maneuver before the enemy can reorient his defense.

(a) Normally, the destruction of a defending enemy force dictates an assault of the objective. The supporting force shifts direct and indirect fires and repositions as required to support the maneuver of assaulting forces. As the assaulting force is committed, the battalion commander and staff ensure that information is available and current on the following:

- Locations and type of enemy contact on the objective.
- Locations of reconnaissance forces.
- Locations of lanes and obstacles to include lane markings.
- Recognition signals and guides.
- Specific routes to use for the approach.
- Locations and orientation of fires from friendly forces.
- Additions or modifications of graphic control measures.

(b) The previously dispersed assaulting force(s) quickly assembles into combat formations and rapidly maneuvers to destroy the enemy forces and clear assigned objectives. The assaulting force(s) moves along covered and concealed routes to an exposed enemy flank, created penetration, or other position of advantage. Smoke assists with concealing the movement of assaulting forces. The assault includes destruction of defending forces and clearance of trenches and fortifications and may involve a

combination of mounted and dismounted movement. The commander's main focus is maintaining the momentum and security of the assaulting force(s). The reconnaissance and surveillance 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.

4-20. FORCE-ORIENTED ATTACK AGAINST A MOVING ENEMY FORCE
The battalion is likely to attack a moving enemy force, especially during a counterattack, spoiling attack, exploitation, or as a result of a movement to contact.

    a. **Planning.** The battalion in a force-oriented attack against a moving enemy force normally organizes in the same manner as a movement to contact. Key planning considerations (Figure 4-18, page 4-48) are discussed below.

    (1) *Where to Fight the Enemy.* The decision on where to fight the enemy requires that the commander have information dominance over the enemy. The commander bases his decision on a clear understanding of the effects of the terrain, the enemy situation, and what the enemy is expected to do. The commander and his 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 engagement areas (EAs). The commander and staff must develop control measures to help coordinate actions throughout the battalion's AO. The commander, primarily assisted by the S3 and S2, 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 S2 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.
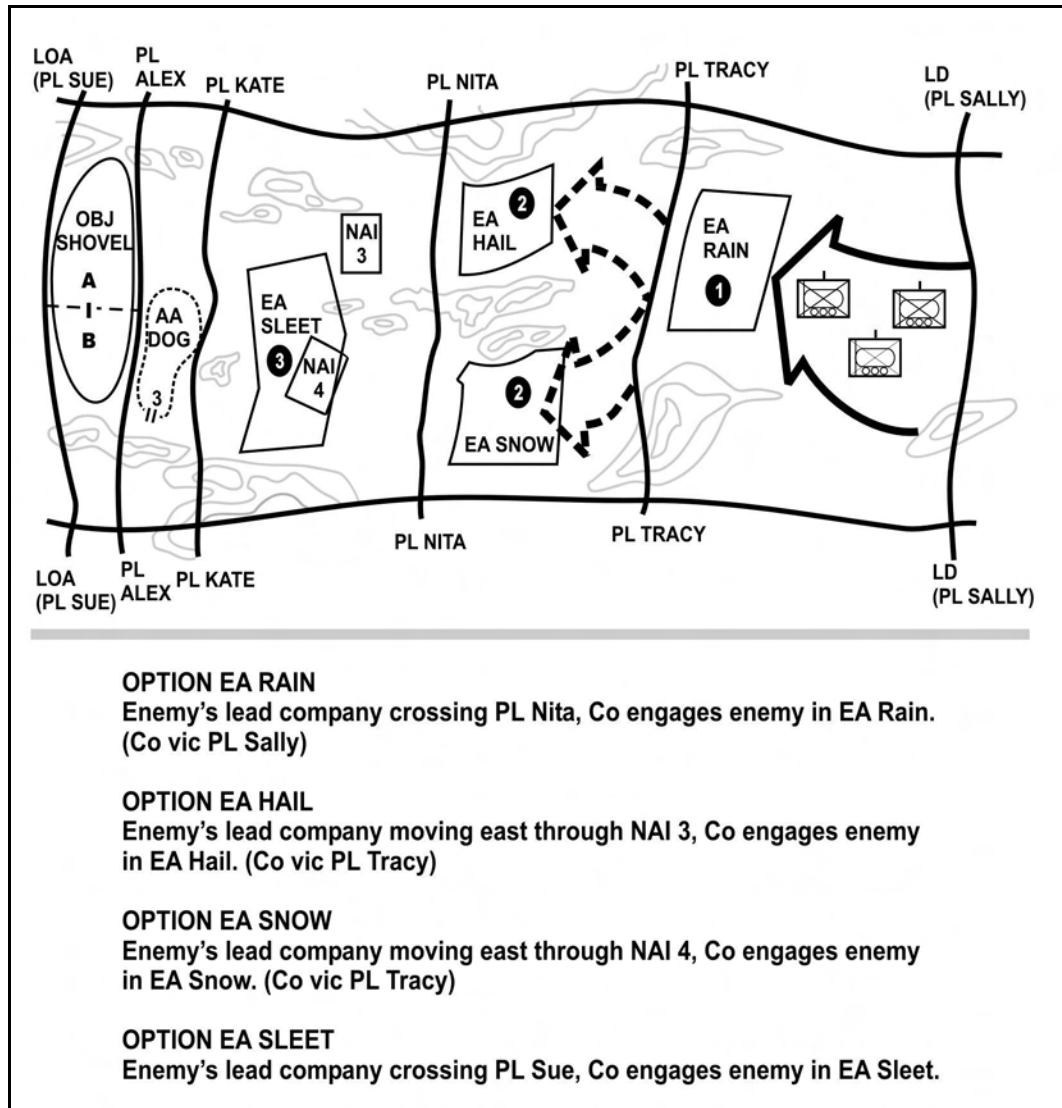
Figure 4-18. Planning the attack.

(2) *Maximizing the Advantages of the Terrain.* The commander uses the terrain to maximize the battalion's freedom of maneuver and lethality while limiting the freedom of maneuver available to the enemy. He looks for avenues of approach that allow the battalion to strike the enemy from a flank or the rear. One or two companies block the enemy's advance while the other companies attack into the enemy's flank. In this example, the terrain prevents the enemy from moving away from the main attack while also protecting the battalion's flank from an enemy attack (Figure 4-19).

Figure 4-19. Example of a battalion flank attack.

(a) Although he develops plans to fight the enemy at the most advantageous location for the battalion, 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 battalion commander and enables them to anticipate changes to the base plan. The scheme of maneuver includes provisions to fight the enemy at other possible EAs. For simplicity, the commander seeks to keep the scheme of maneuver in each EA as similar as possible.

(b) In some situations, such as a movement to contact, the battalion 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 battalion into the attack through the use of a FRAGO based on his current COP and physical view of the battlefield. As the ISR assets push for information, the commander quickly deploys and maneuvers the battalion to develop the situation and defeat the enemy.

(3) *Fire Support.* The following are key considerations for the FS plan.

(a) Use fires to affect the enemy's maneuver well forward of the battalion to disrupt the enemy's formations and timetable.

(b) Destroy HPTs and security forces.

(c) Carefully plan triggers, observer locations, and targets to maintain flexibility and ensure achievement of required effects prior to contact with the enemy.

(d) Coordinate and synchronize with SBCT the movement and positioning of artillery to support EFSTs within each EA and to engage HPTs before the enemy enters the selected EA. Coordinate terrain requirements.

(e) Retain flexibility to mass fires at the decisive point in any EA where the battle may occur.

(f) 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.

(g) Synchronize the mortar platoon's movement, positioning, and fires with the scheme of maneuver.

(4) ***Engineer Support.*** The following are key considerations for the scheme of engineer operations.

(a) Task-organize engineer forces well forward to support breaching

(b) Normal priority of support is to the lead company.

(c) Be prepared to bypass or breach enemy situational obstacles.

(d) Integrate situational obstacles with fires to affect the movement of the enemy in support of the commander's intent.

(e) Plan obstacle belts, obstacle control measures, and situational obstacles to support flank security.

(f) Develop and adjust obstacles and triggers for execution based on the battalion's movement and the enemy situation.

(5) ***Air Defense Support.*** The ADA element supporting the SBCT operates DS to the battalions with the normal priority of protection to the main effort. The ADA assets shift locations on the battlefield as required by the phase of the operation to maintain adequate air defense coverage of critical forces and events. Normally, Linebacker platoons are forward with the Avenger platoon farther back protecting the SBCT CPs and other high-value assets. ADA coverage increases in areas and activities most vulnerable to air attack, such as breaching operations or movements through restricted terrain.

(6) ***Nuclear, Biological, Chemical Support.*** The NBC assets are employed in a similar manner to their employment in an attack against a stationary force. Obscurants and NBC reconnaissance assets typically support the main effort.

(7) ***Combat Service Support.*** The following are key considerations for the CSS plan.

(a) Continuously update the CSS plan. Ensure the CSS plan is responsive and flexible enough to support all maneuver options. Plan support from initiation of the operation to the final objective or LOA.

(b) Integrate refueling and resupply operations with the scheme of maneuver.

(c) Weight the risk the extended distances create for security of MSRs and CSS assets based on the potential of undetected or bypassed enemy forces.

(d) Use all available assets to develop and maintain an accurate enemy picture behind the lead maneuver elements.

(e) Plan and rehearse for enemy contact.

(f) Plan and coordinate the locations, displacements, and routes of CSS assets to maintain responsive support.

(g) Plan and develop triggers for activating and deactivating collection points and LRPs based on the battalion's scheme of maneuver.

(h) Plan CASEVAC, resupply, and equipment recovery to support anticipated engagements within each EA.

b. **Preparation.** Preparation for an attack against a moving enemy force is limited because the opportunity to attack the enemy at the appropriate time and place depends on the enemy's movement. This fact forces the battalion to focus the preparation on executing fires and maneuver actions within each EA. The commander prioritizes each EA to ensure the battalion prepares for the most likely engagements first. The

commander must ensure all subordinate companies and supporting forces understand their role in each EA and the decision point for execution of each EA. The leaders of the battalion rehearse actions in each EA 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.

c. **Reconnaissance.** The reconnaissance and surveillance 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 best to maneuver the battalion against the enemy. The S2 develops NAIs to identify enemy actions and decisions that indicate the enemy's selected COA. The following are key intelligence considerations for attacking a moving enemy force.

(1) *Understand the Effects of the Terrain.* The commander must understand the effects of terrain on the battalion and the enemy. This has the greatest impact on deciding where to fight the enemy. The S2 conducts a detailed terrain analysis and specifically identifies--

- Locations and tactical advantages of key terrain.
- Avenues of approach and mobility corridors for both enemy and friendly forces.
- Advantageous locations for the battalion to fight the engagement.
- Danger areas where friendly or enemy forces may become vulnerable. (Examples include restrictive terrain, choke points, obstacles, terrain that naturally exposes a flank, and areas dominated by key terrain.)
- Likely rates of movement for both forces.

(2) *Anticipate the Enemy's Selected COA.* The IPB details how the enemy is likely to move and fight. It emphasizes the enemy's likely formation(s) and routes and how he will attempt to fight the ensuing meeting engagement.

(a) The analysis illustrates the enemy's expected rate of movement and how the enemy force is likely to be arrayed based on a detailed terrain and time-distance analysis. The enemy normally has three general COAs:

- Assume a 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 the battalion.

(b) The S2 develops enemy COAs based on the enemy's likely objective, capabilities, strength, and known tactics. The S2 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 S2 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.

(3) *Gain and Maintain Contact.* Preferably, the battalion establishes contact with the enemy using digital sensor platforms well before it makes physical contact.

(a) The battalion, with support from the SBCT, receives information from battlefield surveillance assets such as radar, UAVs, access to JSTARS, and other sensors used to track the moving enemy force. Intelligence produced from the information gathered by these sensors helps the battalion direct ground reconnaissance assets to advantageous

positions to physically observe and report information on the enemy. Once made, the battalion maintains contact.

(b) The information gained from the sensors as well as ground reconnaissance elements must be shared with all elements of the battalion as quickly as possible. Information requirements normally include--

- The enemy's rate and direction of movement.
- The enemy's formation, strength, and composition to include 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 key combat multipliers the battalion commander intends to attack, such as artillery, engineers, air defense, and logistics.
- Enemy vulnerabilities such as exposed flanks or force concentrations at obstacles.

(4) ***Support the Battalion's Movement.*** Reconnaissance and surveillance forces move well forward of the battalion. They reconnoiter obstacles and areas that may slow the battalion'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.

(5) ***Report Enemy Actions on Contact with the Battalion.*** As the engagement develops, reconnaissance assets continue to report enemy actions, BDA, and locations. Reconnaissance assets must occupy positions that provide good observation of the engagement area and are survivable throughout the course of the engagement.

d. **Execution.** The following considerations apply to the conduct of the attack.

(1) ***Approach to the Objective.*** The battalion moves with deliberate speed. By gaining contact with the enemy force quickly through the reconnaissance and surveillance force, the SBCT can use long-range fires and CAS to destroy and disrupt the enemy throughout his formation.

(a) The battalion deploys, masses effects, and destroys the remaining enemy before he can adequately react. The commander adjusts the speed of the battalion 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.

(b) The commander seeks to conceal the movement of the battalion from the enemy to maintain surprise. The battalion, moving dispersed, masks its movement and maximizes its use of routes that provide cover and concealment. Using the COP for positive control of movement formations by all subordinate units is essential to the battalion's ability to mass against the enemy. The battalion employs a robust reconnaissance effort to detect and destroy enemy security forces that may warn the enemy force of friendly actions.

(2) ***Action on the Objective.*** The battalion creates favorable conditions for decisive action by weakening and disrupting the enemy's formation, destroying his security forces, and fixing the enemy's main body. The battalion achieves final destruction of the enemy through the main body's attack.

(3) ***Disrupt the Enemy's Formation.*** The battalion employs indirect fires reinforced with situational obstacles to set the conditions for the EA fights, disrupting and weakening the enemy before he gets to the EA. Indirect fires should provide time for the battalion to deploy before contact. Reconnaissance elements normally control these initial fires.

(4) ***Defeat Enemy Security Forces.*** Normally, the enemy employs security forces to protect his main body. The enemy's ability to seize the initiative often depends on his security forces. The battalion must avoid, destroy, or fight through the enemy's security forces to gain contact with the bulk of the enemy force. The commander employs fires in conjunction with his advance guard to defeat the enemy's security forces so the battalion's main body can decisively attack the bulk of the enemy force. Ideally, the battalion'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.

(5) ***Fix the Enemy.*** The battalion normally fixes the enemy's assault force to create the conditions for the battalion's main body attack. Normally, the battalion'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 battalion commander informed of the enemy's strength and actions. It is paramount that the battalion commander receive accurate, timely reports and analysis of the enemy situation. Reconnaissance elements assist the advance guard commander in providing accurate information to the battalion commander. The battalion commander must know the enemy main body's strength, disposition, and reactions. He uses this information to make final adjustments to the main body's attack.

(6) ***Maneuver the Main Body.*** As the advance guard develops the situation, the commander begins to maneuver the main body to a favorable position for commitment.

(a) The commander positions the battalion to attack the enemy formation from an assailable flank where the battalion's total combat power can be massed against an enemy weakness to reach a quick decision. Rapid movement and massed fires characterize this attack. 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 battalion FSO adjusts FSCMs to provide continuous support and ensure force protection.

(b) If the commander determines the enemy force is attempting to bypass or avoid contact, he immediately directs indirect fires to delay and disrupt the enemy's movement away from the battalion. The commander maneuvers his forces to quickly destroy or penetrate any enemy forces attempting to fix or delay the battalion and strikes the bulk of the evading enemy force from the flank or rear.

(c) An accurate COP 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 battalion 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. Proper use of the information available enhances the coordination and integration of all elements.

4-21. TERRAIN-ORIENTED ATTACKS

Terrain-oriented attacks require the battalion to seize and retain control of a designated area to support future operations. The battalion 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 chokepoints or routes to block enemy withdrawals, reinforcements, or movements against the SBCT's main effort.
- To secure an area to allow future operations, such as a lodgment area.

The battalion plans and executes terrain-oriented attacks (Figure 4-20) in the same manner as attacks against enemy forces. The major distinction in a terrain-oriented attack is that the battalion focuses its efforts on the seizure and control of terrain instead of the total destruction of the enemy. The commander plans and directs 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. The battalion 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.
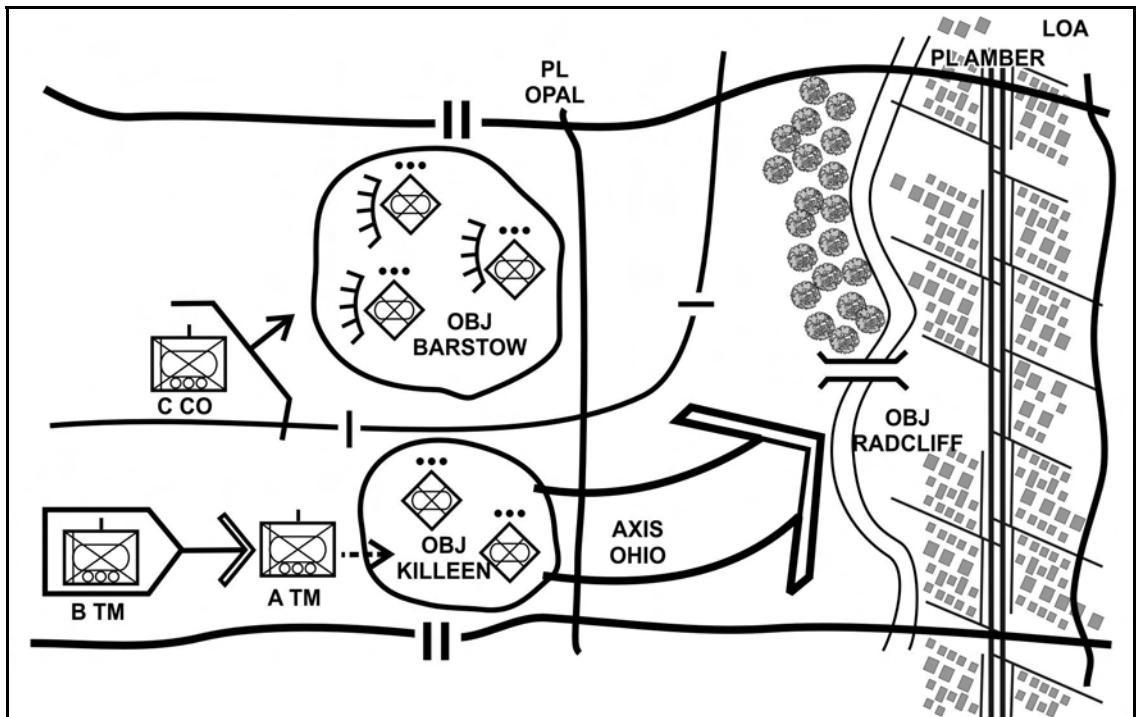
Figure 4-20. Terrain-oriented attack.

a. **Reconnaissance and Surveillance.** The reconnaissance and surveillance effort, as in other attacks, capitalizes on all the battlefield surveillance assets available to the SBCT, as well as those that belong to the battalion, to identify the enemy situation on the

objective and any sizable enemy forces within the battalion's battlespace. Battalion ground reconnaissance elements occupy advantageous positions to gain observation and report information on the enemy.

(1) The commander must consider enemy forces within his battlespace, specifically in areas outside his AO but inside his area of interest (AI), that may react to the battalion's seizure of the objective. Once the battalion locates enemy forces, reconnaissance forces seek to determine the full extent of the enemy's strength and disposition as well as possible bypasses the battalion may exploit.

(2) The commander, assisted by the S2, seeks to identify the possible reactions of enemy forces within his battlespace to the battalion's attack. The plan should retain the necessary flexibility to succeed against all likely enemy reactions. As the S2 develops enemy COAs, he must identify those indicators that reveal the enemy's commitment to a future action. He normally considers enemy actions to defend in place, reinforce threatened enemy units, counterattack, delay, or possibly withdraw.

b. **Degree of Risk**. The commander must determine the degree of risk he is willing to accept by leaving or bypassing enemy forces in the battalion's AO. He 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 battalion's CSS operations and future operations. The commander normally employs economy of force missions to contain, destroy, or fix bypassed enemy forces. The risk imposed by these bypassed forces is reduced by accurate and timely reporting of their locations and status by way of FBCB2 throughout the battalion, especially to the elements moving behind the maneuver forces in the battalion's AO. Once the battalion secures the objective, other forces or fires can destroy bypassed enemy forces or force their surrender.

c. **Seizure of the Objective.** Once it seizes the objective, the battalion conducts a defense of the area to prevent the enemy from recapturing it. The commander seeks to position his forces in a manner that best defends the objective while allowing a rapid transition to follow-on operations. Reconnaissance and security forces establish a screen force forward of the secured objective to provide security and early warning to the battalion to prevent a surprise counterattack by the enemy. Engineers provide countermobility and survivability support as required.

4-22. EXPLOITATION

Exploitation is not normally conducted below the SBCT level. Exploitation often follows a successful attack to take advantage of a weakened or collapsed enemy. The purpose of exploitation can vary, but it generally focuses on capitalizing on a temporary advantage or preventing the enemy from establishing an organized defense or conducting an orderly withdrawal. To accomplish this, the SBCT (or higher level unit) attacks rapidly over a broad front to prevent the enemy from establishing a defense, organizing an effective rear guard, withdrawing, or regaining balance. The SBCT secures objectives, severs escape routes, and destroys all enemy forces. Failure to exploit success aggressively gives the enemy time to reconstitute an effective defense or regain the initiative by a counterattack.

a. The conditions for exploitation develop very quickly. Often the lead battalion in contact identifies the collapse of the enemy's resistance. The SBCT commander must

receive accurate assessments and reports of the enemy situation to capitalize on the opportunity for exploitation. Typical indications of the conditions for exploitation include--

- A significant increase in EPWs.
- An increase in abandoned enemy equipment and material.
- The overrunning of enemy artillery, C2 facilities, and logistics sites.
- A significant decrease in enemy resistance or in organized fires and maneuver.
- An intermixing of support and combat vehicles in formations and columns.
- An increase in enemy rearward movement, especially of reserves and FS units.

b.   Should the battalion conduct exploitation as part of a larger operation, it could have 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.

4-23.   PURSUIT

The battalion does not conduct a pursuit as an independent action. Even at the SBCT level, the risk associated with a pursuit operation generally outweighs the benefits. However, if provided aviation assets or additional ground maneuver units, the SBCT can conduct a pursuit. If so, the battalion can serve as the direct-pressure force or the encircling force.

a.   A pursuit is ordered when the enemy can no longer maintain a coherent position and tries to escape. Once ordered, an accurate COP between the pressure and encircling forces is critical for the necessary synchronization. Unlike exploitation, the SBCT's mission in a pursuit is the destruction of the enemy rather than avoiding enemy contact.

b.   The direct-pressure force organizes for a movement to contact and prepares to conduct a series of attacks. Encirclement results when a force is able to sever the enemy's lines of communication and prevent his reinforcement or escape. The encircling force must have greater mobility than the enemy. The encircling force is usually created from uncommitted forces and must be strong enough to protect itself from the enemy's reserves and what is left of the main body. The direct-pressure force must track the movement of and coordinate with the encircling force. Timing is key to success of the mission, and information systems are key to this synchronization. The encircling force should be prepared to conduct a defense until the direct-pressure force succeeds in destroying or forcing the enemy to surrender. The ultimate goal of a pursuit is to fix the enemy between the direct-pressure force and the encircling force and then to destroy the enemy.

4-24.   SPECIAL PURPOSE ATTACKS

The battalion can launch attacks with various purposes to achieve different results. These special purpose attacks include raids, feints, demonstrations, counterattacks, and spoiling attacks.

a.   **Raid.** A raid is a deliberate attack that involves the swift, temporary penetration of enemy territory for a specific mission. A raid usually ends with a planned withdrawal.

Raids are usually small-scale attacks, requiring detailed intelligence, preparation, and planning.

(1) Typical raid missions are--

- 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.

(2) The raiding force may vary in size from an infantry platoon to a reinforced company. It may operate within or outside the battalion's supporting range. The raiding force moves to its objective by land, air, or water for a quick, violent attack. Once it completes the raid mission, the raiding force quickly withdraws along a different route. Specific planning considerations include the following:

(a) 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. Support from outside the battalion helps to provide the intelligence needed to plan and conduct a raid successfully. The cavalry squadron (RSTA) can also assist in maintaining surveillance of the objective.

(b) Position fire support systems to provide immediate responsive fires during the approach, actions on the objective, and withdrawal. Interdiction fires, deception fires, counterfires, and situational obstacles reduce the enemy's ability to react to the raid.

(c) Security is vital because the raiding force is vulnerable to attack from all directions.

(d) Establish clear abort criteria for the raid. These criteria may include loss of personnel, equipment or support assets, and changes in the enemy situation.

(e) Develop contingency plans for contact prior to and after actions on the objective.

(f) Plan casualty evacuation and raiding force extraction throughout the entire depth of the operation.

(g) 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.

(h) Logistical considerations include the type and number of vehicles and weapons that 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.

(i) Withdrawal should be over a different route than that used to approach the objective.

b. **Feint.** A feint is a form of an attack intended to deceive the enemy and draw attention and combat power (if possible) away from the main effort.

(1) 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 as 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.

(2) The purposes of a feint may include the following:

- To force the enemy to employ his reserves away from the main effort or remain in position.
- To attract enemy supporting fires away from the main effort.
- To force the enemy to reveal defensive fires or weaknesses.
- To accustom the enemy to shallow attacks in order to gain surprise with another attack.

(3) Planning for a feint mission follows the same sequence as any other attack. Special planning considerations include the following:

- Ensure the feint is resourced to 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.

c. **Demonstration.** A demonstration is a form of an attack used for deception. It is made with the intention of deceiving the enemy; however, contact with enemy forces is not sought. Demonstrations support a division or corps plan; battalions do not conduct demonstrations alone. Demonstrations must be clearly visible to the enemy without being transparently deceptive in nature. Demonstration forces use fires, movement of maneuver forces, smoke, EW assets, and communication equipment to support the deception plan. Planning considerations include the following:

- Establish a LOA for demonstration forces that allows the enemy to see the demonstration but not to engage it effectively with direct fires.
- Establish other security measures necessary to prevent engagement by the enemy.
- Employ demonstrations to reinforce the enemy's expectations and contribute to the main effort.
- Develop contingency plans for enemy contact and to avoid becoming decisively engaged.
- Issue clear follow-on missions to the demonstration force.
- Establish the means to determine the effectiveness of the demonstration and assess its effect on the enemy.

d. **Counterattack.** A counterattack is an attack launched from the defense aimed to defeat an attacking enemy force or regain key terrain and ultimately regain the initiative. The counterattack is often the deciding action in the defense and becomes the main effort upon commitment. The battalion is best suited for this role in restricted terrain. In unrestricted terrain the battalion is vulnerable to antiarmor and indirect fires and does not possess the shock effect of a mechanized infantry or armor battalion. The commander may plan counterattacks as part of the battalion's defensive plan, or the battalion may be the counterattack force for the SBCT or division.

e. **Spoiling Attack.** 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 the enemy's ability to mount an

attack. Lucrative targets include C2 systems, intelligence assets, FS, and logistics. Spoiling attacks may be conducted as often as needed to deny adequate attack preparation to the enemy. Normally, the battalion 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. OFFENSIVE PLANNING CONSIDERATIONS

The SBCT's unique ISR and the SBCT's ability to access information available at echelons above division may alter the manner in which the battalion actually plans, prepares for, and executes an attack. This may result in some unique planning considerations (Figure 4-21).

LESS	INFORMATION / INTELLIGENCE *RESULTS IN*	MORE
MORE	UNCERTAINTY	LESS
MORE	RISK TO FORCE	LESS
	WHICH IN TURN LEADS THE *COMMANDER TO ADJUST HIS- -*	
LARGER	RECONNAISSANCE EFFORT	SMALLER
LARGER	SIZE OF RESERVE	SMALLER
MORE	SECURE FORMATIONS	LESS
SLOWER	SPEED OF OPERATIONS	FASTER
FEWER	DISTRIBUTED OPERATIONS	MORE
LESS	ATTACK PRECISION	MORE
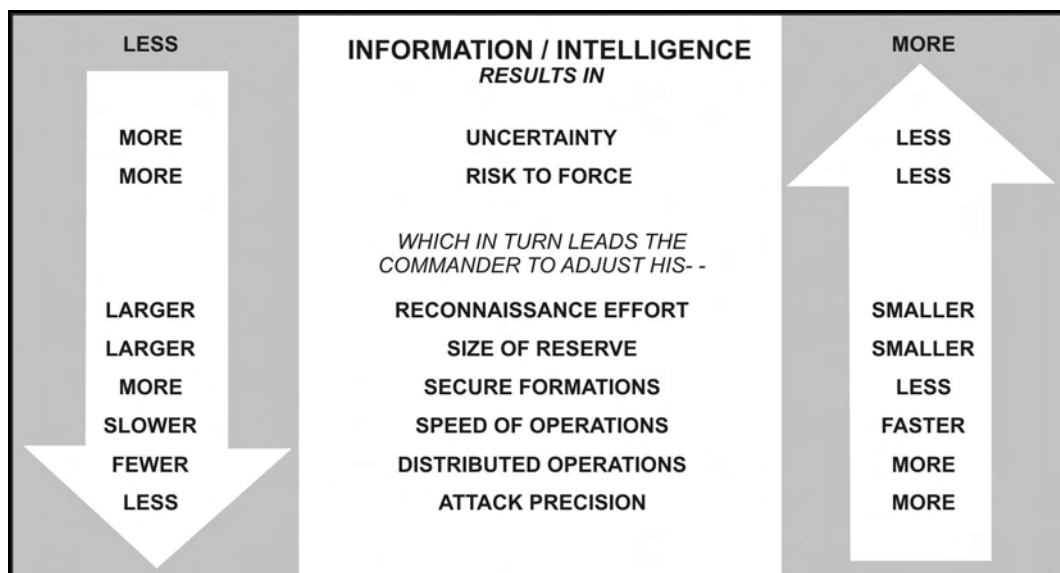
Figure 4-21. Planning considerations.

4-25. PLANNING CONSIDERATIONS

The battalion generally avoids linear actions, stable fronts, and extended pauses between operations. The battalion overloads the enemy by presenting an overwhelming number of actions from multiple directions throughout the depth, width, and height of the battlespace. The battalion has the flexibility to attack through varying types of terrain and thus to prevent the enemy from predicting the direction of attack and orienting on the avenue of approach. By massing the effects of long- and short-range area and precision fires with rapid combined-arms movement, the battalion can decisively defeat the enemy. Improved navigation, target acquisition, and the information-sharing capabilities of the battalion enhance understanding and synchronization throughout offensive operations in near real time. This ability allows commanders in the battalion to share common perceptions of the battlefield. During offensive operations the battalion must consider—

- Unprecedented levels of information available to the commander and staff and the ability to receive and disseminate this information to subordinate elements.
- Expanded AOs capable of operating within noncontiguous areas with respect to other SBCT battalions' AOs that can reach sizes of approximately 100 to 225 square kilometers.
- Resupply traveling on extended lines of communications.
- Limited artillery forces focused on a proactive counterbattery fight.

4-26. FORCE ORGANIZATION

The commander task organizes forces within the battalion after he chooses a scheme of maneuver. The task organization allocates sufficient combat power to allow subordinate companies to accomplish their assigned purposes. The structure of the battalion and its C2 INFOSYS reduce the number of unknowns and allow the task organization to be tailored to meet the specific threat.

a. **The Reconnaissance Platoon.** The reconnaissance platoon primarily executes reconnaissance and surveillance for the battalion. In instances where the enemy situation remains vague, additional forces are allocated to assist in the reconnaissance effort. Where the enemy mounts an effective security zone that denies the reconnaissance platoon the ability to provide the information that the commander needs to make decisions during execution, he may direct an infantry rifle company to conduct a movement to contact or limited attacks through the enemy security zone. From the battalion commander's perspective, these operations constitute a reconnaissance-in-force and feed sufficient information to build the level of situational understanding needed to facilitate his decision-making and decisive combat action.

b. **Security Force.** Across the full spectrum of conflict, the battalion commander carefully considers security force requirements. Forces must be allocated to protect critical assets within the battalion AO against conventional and unconventional attacks. Force organization reduces the amount of dedicated security through a COP and mutual support. Additionally, the reconnaissance platoon and other ISR assets will provide passive security through the conduct of their operations.

c. **Flexibility.** The battalion can conduct both linear and nonlinear operations within contiguous or noncontiguous areas of operation. The speed of the mounted subordinate units within the battalion allows the battalion to conduct nonlinear operations while maintaining the ability to provide mutual support. This flexibility allows the battalion to conduct company-level operations against multiple objectives within the battalion's AO.

d. **Reserve.** The commander has greater latitude in the designation and composition of his reserve. Reserves should be designated at appropriate levels to address unforeseen events. The amount of combat power allocated to the reserve depends primarily on the level of uncertainty about the enemy. The increased ability of the battalion to gain a better degree of understanding about the enemy should allow the commander to tailor the reserve to meet the specific threats and opportunities. At times the situation may dictate that the battalion retain a small, but tailored, force as the reserve because there is little likelihood of catastrophic failure or because all of the infantry rifle companies are conducting significant operations simultaneously. At other times, the commander may

determine that his degree of understanding allows him to tailor subordinate forces to a level that will ensure their success and therefore he does not designate a reserve.

4-27. RECONNAISSANCE AND SURVEILLANCE

Intelligence, surveillance, and reconnaissance is a broad category of assets designed to support planning, decision-making, and targeting. The ISR effort is a combined-arms maneuver operation that employs the reconnaissance platoon and other ISR assets to observe, by visual or other detection methods, NAIs and TAIs in order to collect data, information, or combat information. Surveillance involves the systematic observation of a particular NAI by visual, electronic, photographic, or other means. Target acquisition by specialized and non-specialized ISR assets provides detection, identification, and location of targets in sufficient detail to permit the effective employment of fires and effects. Intelligence encompasses the products shared on the COP and in databases, as well as the processes used to collect, process, and analyze data and relevant information.

   a. **Single Operation.** The increased capabilities of the SBCT in intelligence acquisition and rapid precision fires and effects dictate that ISR assets be tightly integrated into a single operation to facilitate mission accomplishment.

   b. **Integration.** The S2 integrates IPB and other MDMP products into the analysis of information coming into the main CP from the reconnaissance platoon, the cavalry squadron (RSTA), other ISR assets, and echelon-above-division assets. The S2 attempts to answer the PIR, recommends refined PIR for the commander to consider, confirms probable enemy COAs and intentions, and explains enemy actions in relationship to the current friendly operation. The product of this process is available on a shared database facilitating the ability of the battalion commander and his subordinate commanders to make timely and effective decisions regardless of their location on the battlefield. Ultimately, reconnaissance and surveillance operations set the conditions for the success of the unit in the close fight.

   c. **Execution.** The battalion conducts reconnaissance and surveillance using organic and supporting reconnaissance and surveillance and technical assets. The data, information, and combat information collected from these assets, when combined with intelligence provided by the higher headquarters or echelons above division assets, help the commander visualize a nearly complete picture of the enemy and environment within the battalion's battlespace. Specifically, the battalion employs an appropriate amount of its reconnaissance and surveillance assets throughout its AO in order to identify favorable terrain and determine the enemy's composition, disposition, activities, strengths, and possible vulnerabilities.

   d. **C2 INFOSYS.** The C2 INFOSYS allow information to be passed from the cavalry squadron (RSTA) and other ISR assets to decision-makers and targeting cells in a timely manner. The reconnaissance and surveillance order (and collection plan) is published early in the MDMP process (not later than WARNO 2) with sufficient enemy detail and operational coordination to focus the battalion's reconnaissance and surveillance effort. This information allows the infantry battalion to--

- Seize and maintain the initiative.
- Develop and disseminate effective maneuver and fires and effects plans prior to contact.
- Detect, identify, and destroy high payoff targets early.

- Allow follow-on forces to maneuver rapidly, and without obstruction, to the objective.
- Keep uncommitted forces available as long as possible in preparation for action at decision points.
- Recognize and exploit fleeting opportunities presented by discovered enemy weaknesses.
- Share an enhanced COP at all levels.
- Reduce the risk of surprise by enemy operations.

Refer to Chapter 3 for a detailed discussion of ISR operations.

4-28. SCHEME OF MANEUVER

The battalion directs its decisive operation (or main effort) against an objective, ideally an enemy weakness, to cause the collapse of the enemy. By doing so, the battalion sustains the initiative and reduces its own vulnerabilities. The battalion commander seeks to identify an assailable flank, poorly defended avenue of approach, or a smaller unit lacking mutual support that he can exploit to gain a tactical advantage. When attacking a well-prepared enemy defense, the commander normally plans to isolate and then destroy vulnerable portions of the enemy defense throughout the depth of the zone of attack.

a. **Reverse Planning Process.** The commander and staff develop the plan using a reverse planning process from actions on the objective to the assembly area. They incorporate plans for exploiting success and unforeseen opportunities that may develop during execution. Emphasis is placed on synchronizing maneuver, fires and effects, and support throughout the reconnaissance and surveillance effort and the attack. Reconnaissance and surveillance facilitates maneuver, allowing combat forces to move on specific routes to objectives without significant enemy contact. The composition, disposition, and strength of the enemy force drives the type of attack the battalion conducts (see paragraph 4-3).

b. **Enemy Capabilities.** The staff considers the enemy's ability to mass combat power, reposition his forces, or commit his reserve. The battalion develops a scheme of maneuver to mass sufficient combat power to defeat the enemy. The reverse planning process is an essential tool in building an effective plan to attack an enemy. By starting with actions on the objective and working back to the assembly area, the staff can allocate combat power, mobility assets, and fires and effects (suppression and smoke).

4-29. FIRE SUPPORT

Fire support planning is the process of analyzing, allocating, and scheduling fire support. The goal of fire support planning is to integrate fire support into battle plans to optimize combat power. Fire support planning is performed concurrently with the MDMP. Effective fire support planning places the right elements of the fire support system in the right place at the right time in accordance with the commander's intent. The following basic principles of fire support planning apply:

- Plan early and continuously.
- Follow the commander's targeting guidance.
- Exploit all available targeting assets.
- Consider the use of all available fire support means.
- 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.
- Consider airspace coordination.
- Provide adequate fire support.
- Provide rapid and effective coordination.
- Remain flexible.
- Provide for the safeguarding and survivability of friendly forces and installations.

a. **Effectiveness.** The effectiveness of fire support planning and the fire support system depends on the successful performance of the four basic tasks: support forces in contact, support the concept of operations, synchronize fire support, and sustain fire support.

(1) *Support Forces in Contact.* Supporting forces in contact includes the allocation of weapons systems and sorties to subordinate elements that actually engage the enemy. Supporting forces in contact usually means providing responsive fire support that protects and ensures freedom of maneuver to forces in contact with the enemy.

(2) *Support the Concept of Operations.* **Supporting the concept of operations means providing fire support for any possible conti**ngency. Fire support assets must be identified and marshaled for execution at the right time and place. The SBCT commander must allocate enough firepower to the battalion commander so that he can influence the battle as necessary.

(3) *Synchronize Fire Support.* Fire support is synchronized through fire support coordination, beginning with the SBCT commander's estimate and concept of the operation. The battalion FSO assists the commander in integrating all fire support, including the battalion mortars, with the appropriate battlefield systems. These systems include intelligence, maneuver, fire support, mobility and survivability, air defense, combat service support, and battle command (an expansion of command and control made possible by changes in the scope, intensity, and tempo of current and future operations).

(4) *Sustain Fire Support.* Combat sustainment includes all the CSS activities necessary to support battles, engagements, and related actions. A battalion can realize the full combat potential of its forces and achieve synchronization in its operations only when combat sustainment is planned, coordinated, and executed efficiently. Planners must formulate tactical plans to reflect logistics limitations and exploit logistics capabilities.

b. **Urban Terrain.** The nature of restricted and urban terrain presents some special considerations. The ability to direct and observe fires and effects within isolated compartments of restricted and urban terrain is required down to the platoon. Minimum engagement ranges are as important as maximum ranges.

c. **Planning Considerations.** Considerations for the fire support plan include:

- Movement of the fire support assets to enable destruction and or engagement of HPTs.
- Movement of the fire support assets to support the reconnaissance and surveillance effort.
- Location and employment of COLTs to facilitate precision fires.

- Using deception fires to confuse the enemy as to the location of the decisive operation (or main effort).
- Planning suppressive and obscuring fires at the point of penetration.
- Planning suppressive and obscuring fires in support of breaching operations.
- Planning fires in support of the approach to the objective. These fires engage enemy security forces, destroy bypassed enemy forces, and screen friendly movement.
- Synchronizing fires on the objective to suppress, neutralize, or destroy enemy forces that most affect the battalion's movement to the objective.
- Planning targets to attack repositioning enemy forces and the movement of enemy reserves.
- Planning fires beyond the objective to support an attack or defense.
- Using fires or CAS to delay or neutralize enemy reserves.
- Planning locations of critical friendly fire zones to protect critical assets such as support forces, breaching efforts, and artillery assets.
- Planning for desired effects on civilian populations

Section V. TRANSITION OPERATIONS

The battalion spends minimum time after concluding an engagement or actions on the objective to consolidate and reorganize before continuing the attack. If consolidation and reorganization are required, the commander selects the best time and location to facilitate future operations and provide force protection. The battalion must maintain a high degree of security when performing consolidation and reorganization activities.

4-30. CONSOLIDATION

Consolidation is the process of organizing and strengthening a newly captured position. The battalion may need to consolidate to reorganize, avoid culmination, prepare for an enemy counterattack, or allow time for movement of adjacent units. The battalion makes consolidation plans for every mission, updates them during the attack, and passes them to units digitally as the attack is completed. Actions during consolidation include--

- Reestablishing communications (if required).
- Eliminating pockets of enemy resistance.
- Establishing security consistent with the threat.
- Establishing contact (electronic, physical, or both) with adjacent friendly units.
- Preparing defensive positions.
- Clearing obstacles or improving lanes to support friendly movement and reorganization activities.
- Planning and preparing for future operations.
- Destroying captured enemy equipment and processing EPWs.
- Maintaining contact with the enemy and conducting reconnaissance.
- Cross-leveling and conducting emergency resupply.

The battalion maintains contact with the enemy by redirecting the reconnaissance platoon, directing small-unit patrols, pulling the latest intelligence from the SBCT ISR

analysis platoon and ISR integration platoon of the MICO and S2, and possibly conducting limited objective attacks.

4-31. REORGANIZATION

Reorganization planning begins before and continues during the attack as losses occur. Companies must feed reports to the battalion as losses occur so that the information entered into the CSS system allows movement of needed resupply forward so that it arrives as the battalion begins reorganization. The battalion immediately takes all measures required to maintain its combat effectiveness or return it to a specified level of combat capability. If extensive reorganization is required, the battalion conducts it during consolidation. Reorganization tasks include--

- Establishing, if required, new tactical internet, unit task organization (UTO), and digital connectivity.
- Establishing and maintaining security.
- Reestablishing the battalion chain of command, key staff positions, and C2 facilities lost before or during the battle.
- Treating and evacuating casualties.
- Recovering and repairing damaged equipment as necessary.
- Redistributing ammunition, supplies, and equipment as necessary.
- Conducting resupply and refueling operations.
- Repositioning C2 facilities, communications assets, and logistics for future operations.
- Reorganizing companies and platoons if losses have occurred.

4-32. CONTINUING OPERATIONS

For all missions assigned, the battalion should plan for exploiting success. However, at the conclusion of an engagement, the commander may be forced to defend. The commander considers the higher commander's concept of operations, friendly capabilities, and the enemy situation when making the decision to defend or continue offensive operations.

4-33. DEFEND

The battalion conducts a defense when directed by higher headquarters or to repel an enemy counterattack, avoid culmination, or complete reorganization activities. The battalion occupies the most defensible terrain, which may require the battalion to attack to seize defensible terrain. Normally, the battalion pushes its reconnaissance platoon out to establish a security area to provide reaction time and early warning of enemy actions. Subordinate companies occupy designated AOs, quickly array forces, and develop fire plans. Normally, the commander seeks to array companies to achieve an adequate level of defense and facilitate future operations. Engineers provide survivability support and emplace obstacles as required to support the defense.

CHAPTER 5
DEFENSIVE OPERATIONS

Defensive operations defeat an enemy attack, buy time, economize forces, or develop conditions favorable for offensive operations. Defensive actions alone are not decisive; they must be combined with or followed by offensive action. Even within the conduct of the SBCT defense, the battalion exploits opportunities to conduct offensive operations within its area of operations to deprive the enemy of the initiative and create the conditions to assume the offensive.

Section I. FUNDAMENTALS OF THE DEFENSE

The battalion defends temporarily to create the conditions necessary to resume offensive operations in order to defeat the enemy decisively. As part of the SBCT, the battalion may defend, delay, withdraw, counterattack, or perform security operations or economy of force tasks. A defensive engagement often requires the battalion to execute several of these tasks over its course. This section discusses the fundamentals of the defense.

5-1. PURPOSE OF THE DEFENSE

The main purpose of the defense is to force or deceive the enemy into attacking under unfavorable circumstances, defeat or destroy his attack, and regain the initiative for the offense. The defending commander seeks to dictate where the fight will occur, preparing the terrain and other conditions to his advantage while simultaneously denying the enemy adequate intelligence. Defense is a temporary measure used to identify or exploit enemy weaknesses. Use of the defense provides the opportunity to change to the offense. In general, the battalion defends to--

- Defeat or destroy an attacking enemy.
- Increase the enemy's vulnerability by forcing him to concentrate his forces.
- Gain time.
- Deny enemy entry into an area or retain terrain.
- Economize forces in one area to apply decisive force elsewhere.
- Increase the enemy's vulnerability by forcing him to concentrate forces.
- Prepare to resume the offensive.
- Develop favorable conditions for offensive actions.
- Reduce the enemy's capability for offensive operations.

5-2. ORGANIZATION OF DEFENSIVE ACTIONS

Defensive operations are organized around a framework of a security area, a main battle area, and a rear area.

a. **Security Area.** The SBCT normally establishes a security force to provide early warning, reaction time, and initial resistance to the enemy. Depending on the SBCT commander's guidance and plan, the battalion has several possible security force missions and options. The battalion may--

- Establish a security area layered behind the SBCT to add depth to the effort.
- Secure its own flanks and rear while SBCT assets conduct the primary security area effort forward of the forward edge of the battle area (FEBA).

- Conduct its own security effort in the absence of a higher echelon security force.
- Provide units for the SBCT security force. This could include the reconnaissance platoon, mortar platoon, or both; maneuver platoons or companies; or the entire battalion.

(1) *Security Area Definition.* The SBCT commander defines the SBCT's security area, the battle handover line from the SBCT to the battalion, the exact trace of the FEBA, and where he envisions the main battalion fight will occur. From this, the battalion commander can determine how to structure his security area and the array of forces to employ. If the battalion commander must organize his own security force, he chooses from three basic options:

- Use the reconnaissance platoon only as a screening force.
- Use the reconnaissance platoon in conjunction with maneuver elements, mortars, or both, in a screen mission. A combatant company commander can command this force, or it can operate directly under battalion control.
- Utilize a company with or without the reconnaissance platoon and mortars in a guard mission.

(2) *Specific Guidance and Tasks.* No matter what task organization he implements, the commander should provide the force with specific guidance and tasks. This may include--

- Duration of the mission.
- Results to be achieved against the enemy.
- Specific CCIR with associated NAIs and TAIs.
- Avenues of approach to be monitored with PIR and last time information is of value.
- CS and CSS.
- Disengagement and withdrawal criteria and rearward passage coordinating instructions.
- Follow-on tasks or missions.

(3) *Simultaneous Missions.* Using battalion resources to establish a security area while simultaneously requiring the battalion to defend the MBA is risky and divides the attention of the commander. Whenever possible, this should be avoided. Figure 5-1 illustrates a typical organization of a defensive battlefield.
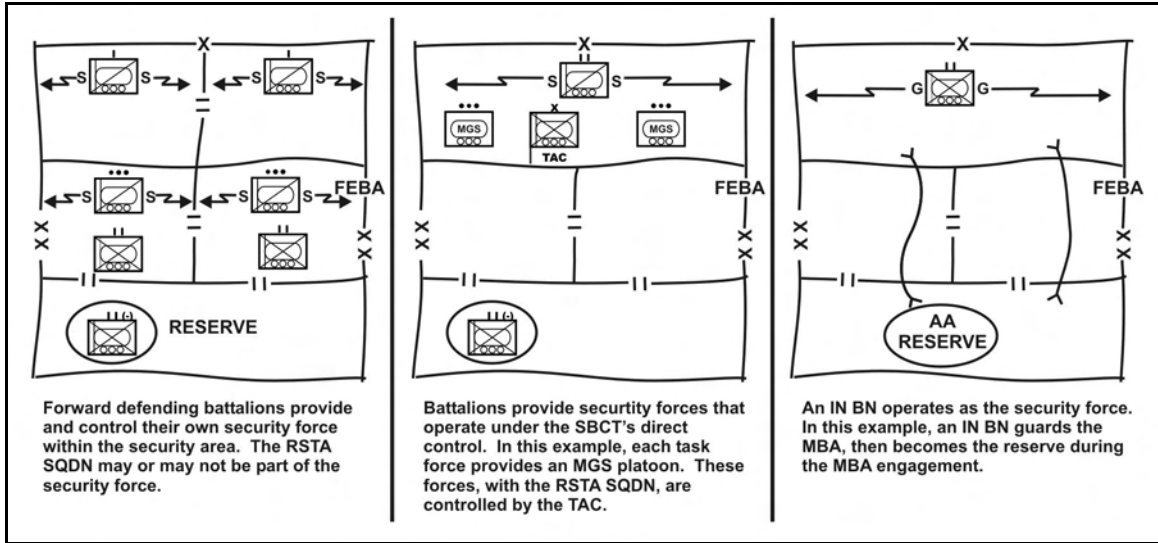
Figure 5-1. SBCT organization of security zone forces.

b. **Main Battle Area.** The SBCT and its battalions deploy the bulk of their combat power in the MBA. The SBCT's MBA extends from the FEBA to the forward battalions' rear boundaries. Battalion main battle areas are subdivisions of the SBCT's MBA. The FEBA marks the foremost limit of the areas in which the preponderance of ground combat units deploy, excluding the areas in which security forces are operating. The SBCT commander assigns the battalion MBAs by establishing unit boundaries. SBCT and battalion commanders establish areas of operation, battle positions, or strongpoints to implement their concepts of operations. As in all operations, commanders promote freedom of action by using the least restrictive control measures necessary to implement their tactical concepts (Figure 5-2).
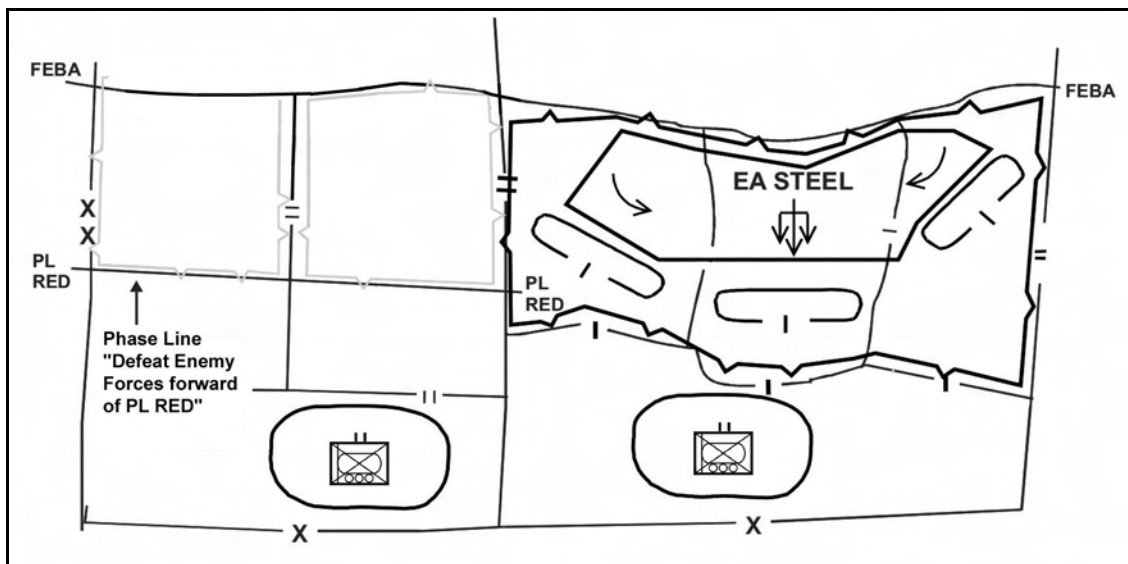
Figure 5-2. Sample area defense using static and dynamic elements.

5-3.   CHARACTERISTICS OF THE DEFENSE

Much like offensive operations, the SBCT infantry battalion differs from its more traditional counterparts only in its operational style. The characteristics of the defense remain largely unchanged. Due to its advantages in information, lethality, and mobility, the battalion can defend in linear as well as nonlinear frameworks. The ISR capabilities within the SBCT structure enable the battalion to locate and discern the enemy's main and supporting efforts and the means by which he will apply that effort. Preparation, security, disruption, massing effects, and flexibility continue to characterize the battalion's defensive operations.

a.   **Preparation.** Against an opponent operating in a more conventional style, the battalion commander determines likely enemy avenues of approach, likely enemy schemes of maneuver, where to kill the enemy, integration of obstacles, unit positioning, and integration of indirect fires, and he assigns mission accordingly. Defensive preparations include the following:

(1) The S2, S3, and BOS representatives execute the MDMP under the XO's supervision for the commander's approval. The C2 INFOSYS architecture allows the commander to circulate on the battlefield while issuing guidance and approving products throughout the process. The staff is able to interface with the SBCT and higher elements for sophisticated computer analysis of enemy COAs and friendly plans.

(2) Enact force protection measures, which involve action against conventional threats (preparation of fighting positions, digging-in C2 nodes, and so forth) as well as asymmetric threats (terrorist attacks and WMD employment).

(3) Designate a reserve.

(4) Conduct rehearsals, to include employment of the reserve and counterattack forces.

(5) During all types defensive operations, position forces in depth.

(6) Reinforce terrain with obstacles to favor the defender.

b.   **Security.** Since a force defends to conserve combat power for use elsewhere, or at a later time, commanders must secure the force. The battalion ensures security by employing reconnaissance elements throughout the depth and breadth of its assigned AO. The cavalry squadron (RSTA), sensors, and the MICO's tactical (TAC) HUMINT assets in the SBCT conduct reconnaissance and surveillance to define and confirm the threat spatially (at extended ranges) and in terms of time and manner. Deception and information operations aid in securing the force and confuse the enemy as to the battalion's manner of defense. The battalion secures the force through integrated security operations tied with the cavalry squadron (RSTA) and other ISR assets.

c.   **Disruption.** Defenders disrupt an attacker's tempo and synchronization by countering his initiative and preventing him from massing overwhelming combat power. Disruption attacks the enemy's will to fight. Deep precision fires, scatterable mines (SCATMINEs), unexpected defensive positions, local counterattacks at all levels, and attacks delivered by a highly mobile reserve force combine to disrupt the enemy's attack and break his will to continue offensive operations. Repositioning forces, aggressive local force protection measures, random employment of roadblocks, ambushes, checkpoints, and information operations combine to disrupt the threat of asymmetrical attack. Attacks on these disrupt enemy efforts to fight as a combined arms team. Maneuver units deceive the enemy as to the nature of their defense and employ local combined arms

counterattacks to break the tempo of the enemy's attack. The SBCT's integrated ISR capability produces dominant information superiority that allows the commander to "see" and prevent the enemy from fully preparing his attack.

d. **Massing Effects.** The battalion shapes and decides the battle by massing the effects of overwhelming combat power. Effects should be synchronized in time and space and should be rapid and unexpected so that they break the enemy's offensive tempo and disrupt his attack. The commander employs integrated ISR to shift the effects of fires and maneuver forces so that they are repeatedly focused and refocused to achieve decisive, destructive, and disruptive effects upon the enemy's attack. The commander must be audacious in achieving overwhelming combat effects at the decisive point by utilizing his information dominance to take acceptable risks in other areas.

e. **Flexibility.** The defender gains flexibility by sound preparation, disposition in depth, retention of reserves, repositioning, and effective command and control. The defense is characterized by rapid simultaneous and collaborative planning with flexible execution. Contingency planning permits flexibility. Flexibility also requires that the commander "see the battlefield" to detect the enemy's scheme of maneuver early. IPB determines likely enemy actions, and security elements confirm or deny those actions.

Section II. TYPES OF DEFENSIVE OPERATIONS

There are three types of defensive actions: area defense, mobile defense, and retrograde operations. Each of these types of defensive actions contains elements of the others and usually contains both static and dynamic aspects. Battalions serve as the primary maneuver elements or terrain-controlling units for the SBCT in all types of defensive operations. They may defend AOs or positions or may serve as security forces or reserves as part of the SBCT coordinated defense.

5-4.   AREA DEFENSE

The area defense concentrates on denying an enemy force access to designated terrain for a specific time. 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, controlling the terrain between positions. The defeat mechanism is massing effects into engagement areas, usually supplemented by intervention of a reserve. The commander uses his reserve force to reinforce fires, add depth, block penetrations, restore positions, or counterattack to destroy enemy forces and seize the initiative. Area defenses are conducted when--

- The mission requires holding certain terrain for a specific period of time.
- There is enough time to organize the position.
- The battalion or SBCT has less mobility than the enemy.
- 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.

The battalion commander normally selects one of two forms of defensive maneuver for an area defense--forward or defense in depth. However, the higher commander may define the general defensive scheme for the battalion. The specific mission may impose constraints such as time, security, and retention of certain areas that are significant factors in determining how the SBCT will defend.

a. **Forward Defense.** The intent of a forward defense is to limit the terrain over which the enemy can gain influence or control. The battalion deploys the majority of its combat forces near the FEBA with the reconnaissance platoon establishing a relatively narrow security area (Figure 5-3). The battalion fights to retain these forward positions and may conduct counterattacks against enemy penetrations or to destroy enemy penetrations in forward engagement areas. Due to its inherent lack of depth, the forward defense is the least preferred option. While the battalion may lack depth, companies and platoons are expected to build depth into the defense at their levels. The battalion 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. A battalion may defend forward under the following conditions:

- Terrain forward in the AO favors the defense.
- Strong linear 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 battalion to retain or initially control forward terrain.
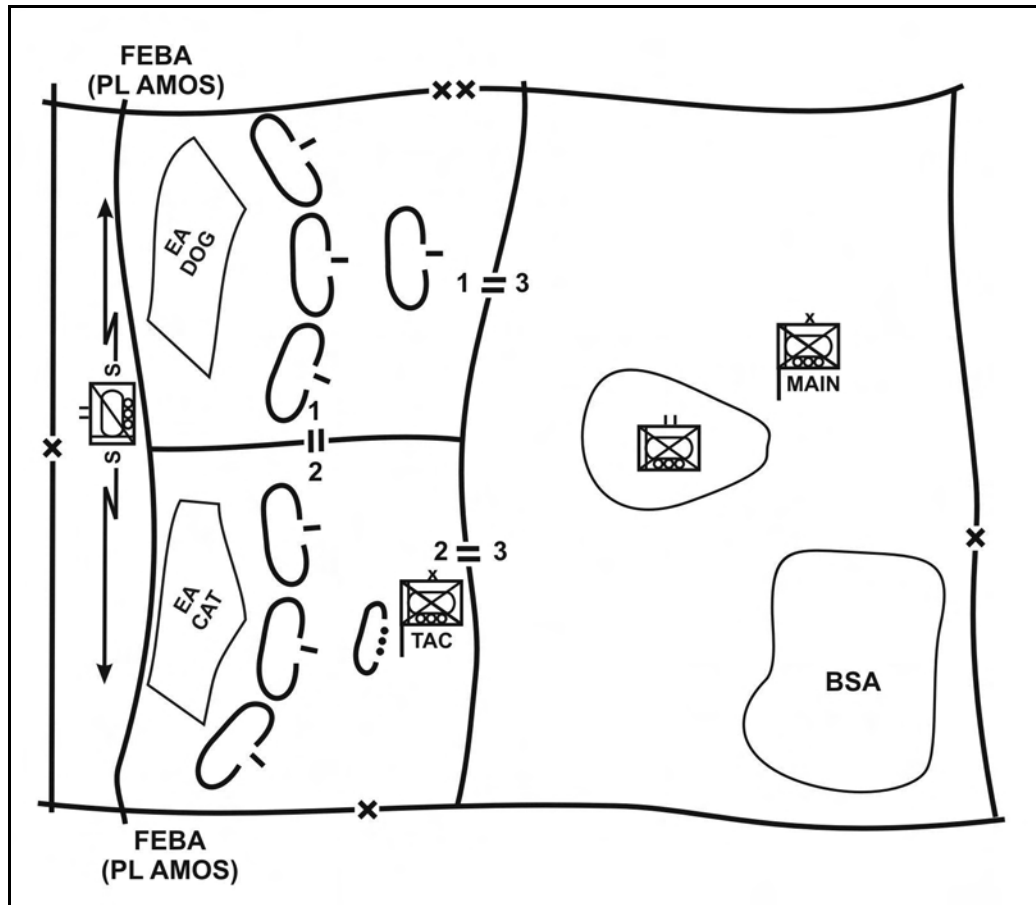
Figure 5-3. Example of a forward defense with battalions and companies defending forward.

b. **Defense in Depth.** A defense in depth is the preferred option when tactical conditions allow. It reduces the risk of the attacking enemy quickly penetrating 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 to exploit ISR and fire support assets to reduce the enemy's options, weaken his forces, and set the conditions for destruction. It provides the commander more time to gain information about the enemy's intentions and likely future actions by taking full advantage of the C2 INFOSYS capabilities before decisively committing to a plan of his own. It also allows the battalion to execute decisive maneuver by effectively repositioning companies to conduct counterattacks or to prevent penetrations (Figure 5-4).
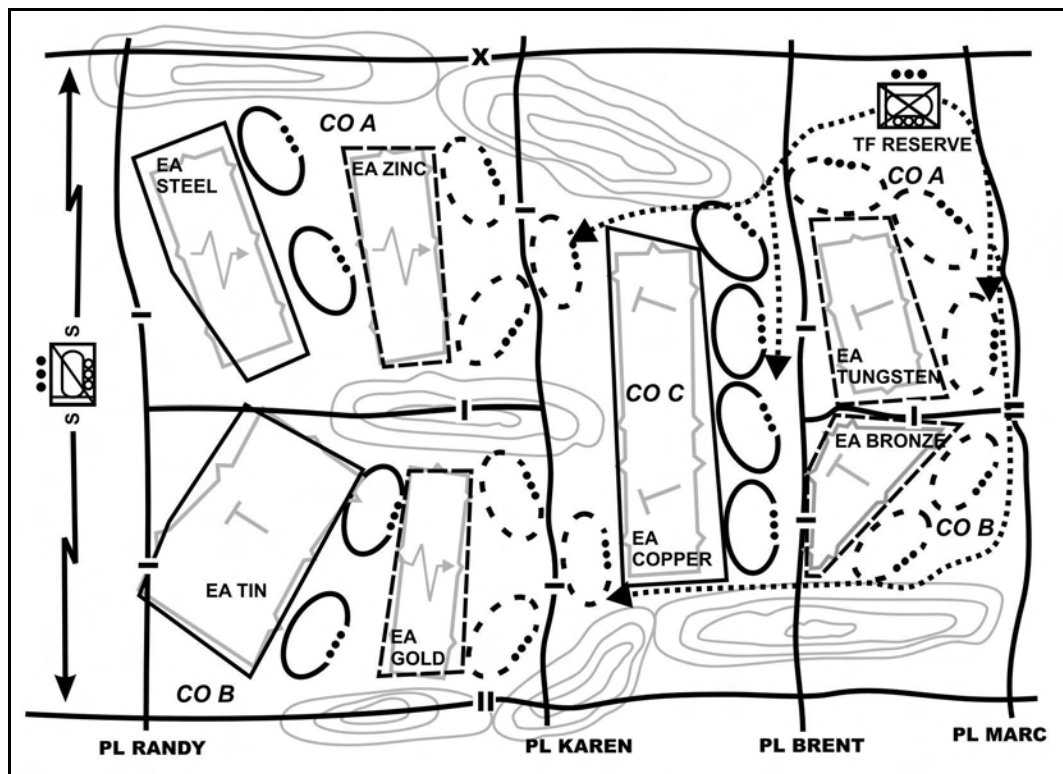
Figure 5-4. Defense in depth.

c. **Planning.** The commander must consider all the factors of METT-TC in order to determine how best to concentrate his efforts and economize forces. Detailed analysis of terrain may be the most important process that the commander and his staff complete. A successful defense relies on a complete understanding of terrain in order to determine likely enemy courses of action and the optimal positioning of the battalion assets to counter them. The commander's keys to a successful defense are--

- Capability to concentrate effects.
- Depth of the defensive area.
- Security.
- Ability to take full advantage of the terrain.

- Flexibility of defensive operations.
- Timely resumption of offensive action.

(1) **Security.** One of the first planning considerations for the battalion is security operations. The reconnaissance platoon, possibly with augmentation, will precede the maneuver battalion in order to clarify the tactical situation. The commander must give the reconnaissance platoon specific PIR to allow for an efficient occupation of the area of operations and to position itself for the preparation and execution of the area defense. On a noncontiguous battlefield, the security force must be positioned between the protected force and the known or suspected enemy locations.

(2) **Maneuver.** In noncontiguous operations, the battalion often must defend either on a broad front or in an AO large enough that employing units in mutually supporting positions is unrealistic. This requires a judicious effort by the commander and his staff in determining the positioning of maneuver forces. The battalion has the unique 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 MGS, ICVs, and Javelins. 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 battalion's capabilities to mass fires and effects while providing protection for the units.

(a) Once the commander has assigned areas of responsibility to his companies, he must determine any potential gaps between higher headquarters, adjacent, and subordinate units. The battalion should plan to cover these gaps with reconnaissance assets, aggressive patrolling from the companies, and local observation posts. The battalion 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.

(b) The need for flexibility through the mobility of rifle companies requires graphic control measures to assist in command and control during local counterattacks and repositioning of forces. Specified routes, phase lines, attack by fire positions, engagement areas, target reference points, and other fire control measures are required for the effective synchronization of maneuver. The following are the steps for engagement area development (asterisks denote steps that may occur simultaneously).

- Identify enemy avenues of approach.
- Determine enemy scheme of maneuver.
- Determine where the battalion wants to kill the ememy
- Emplace and integrate weapons systems and or direct fire. *
- Plan and integrate obstacles.*
- Plan and integrate fires.*
- Rehearse the direct fire plan and engagement criteria actions in the EA.

(3) **Positioning the Reserve.** The commander must designate and position the reserve in a location where it can effectively react to several contingency plans. He must consider terrain, trafficability of roads, potential engagement areas, probable points of enemy penetrations, and commitment time. The commander may have a single reserve under battalion control or, if the terrain dictates, the companies may designate their own reserves. The reserve should be positioned outside the enemy's direct fire range in a covered and concealed position. Information concerning the reserve must be considered

EEFI and protected from enemy reconnaissance. The commander may choose to position his reserve forward initially to deceive the enemy or to move the reserve occasionally in order to prevent it from being targeted by enemy indirect fires.

(a) The size of the reserve depends upon the size of the area covered in the defense and the clarity of expected enemy action. The battalion may need to defend an AO so large that only local reserves are feasible due to reaction time and the number of potential enemy COAs. The SBCT cavalrly squadron (RSTA), in conjunction with the reconnaissance platoon, should be able to clarify enemy intentions by collecting information on the massing of forces, electronic signals, and troop movement. This information allows the commander to gain an understanding of the situation and to better focus his efforts toward the size and task organization of the reserve.

(b) The battalion must give specific planning guidance to the reserve to include priority for planning. The reserve commander should also expect to receive specific decision points and triggers for employment on each contingency. This guidance allows the reserve commander to conduct quality rehearsals and to anticipate his commitment as he monitors the fight. Finally, the commander must develop a plan to reconstitute the original reserve once it is committed. This is most often accomplished with a unit out of contact.

(4) *Fire Support.* The battalion may receive priority of fires for a specific mission or phase of the defense. The battalion and company mortars are its primary indirect fire assets, and the commander must not rely solely on the limited indirect fire assets available to the SBCT. 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 fire support coordination measures and priority of fires.
- Ensure integration of fires in support of obstacle effects.
- Ensure integration of fires with the battalion counterattack plans and repositioning contingency plans.

(5) *Engineer Support.* Plan the transition to countermobility and survivability work in detail, ensuring adequate time for subordinate engineer troop-leading procedures.

(a) Site situational obstacles early. Plan multiple locations to support depth and flexibility in the defense. Ensure adequate security for obstacle emplacement systems. Integrate triggers for execution of situational and reserve obstacles in the decision support template.

(b) Focus the countermobility effort to shape the enemy's maneuver into positions of vulnerability.

(c) Ensure adequate mobility support for withdrawing security forces, the reserve, and repositioning of MBA forces.

(d) Ensure integration of survivability priorities for critical systems and units.

(6) *Air Defense Support.* Key factors the battalion must consider, when ADA assets are available, include the following:

- Position ADA assets and radars along air avenues of approach to provide early detection and engagement of enemy aircraft. Defeat enemy air before it enters the battalion's AO or AI.
- Provide all-round air defense protection to the battalion with mutual supporting and overlapping fires. Weight fires toward likely air avenues of approach.
- Plan primary, alternate, and supplementary firing positions to support defensive delays, positions in depth, and counterattacks.
- Reposition ADA assets to replace lost assets or to mass against significant air threats.
- Ensure adequate security, survivability support, and CSS (especially missile caches) for ADA assets.
- Establish priorities of air defense protection based on the criticality and vulnerability of units and the threat.
- Expect the enemy to employ heavy air attacks against critical friendly positions (battle positions [BPs] and start points [SPs]) to support a breakthrough of the battalion's defense.
- Protect the reserve, which has a critical role in the defense. The enemy will attempt to identify and target it to prevent its decisive employment.
- Protect C2 assets. They are normally stationary and produce a high electronic signature; thus, they are more susceptible to identification and targeting by enemy air attacks. ADA assets protecting forward maneuver forces normally provide C2 assets with incidental area coverage.
- Protect logistics units.

(7) **Aviation Support.** In defensive operations, the speed and mobility of aviation can help maximize concentration and flexibility. During preparation for defensive operations, aviation units may support the battalion commander with aerial reconnaissance and fires. (See Appendix G, Aviation Support of Ground Operations.)

(a) During the defense, aviation fires can attack deep against high-payoff targets, enemy concentrations, and moving columns and can disrupt enemy centers of gravity. Attack helicopter units can be employed in depth to attack follow-on echelons before they can move forward to the close battle. Aviation forces may also conduct screening operations and may conduct guard operations of an open flank in conjunction with ground forces.

(b) Attack helicopters routinely support security zone 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 integration and coordination is necessary to ensure efficient use of aviation assets (see Appendix G, Aviation Support of Ground Operations.). If the battalion is assigned aviation assets, careful consideration must be given to EA development and direct fire planning and the supporting aviation unit, through its aviation LNO, must be involved with the planning process.

(8) **Nuclear, Biological, and Chemical Support.** Plan for NBC reconnaissance at likely locations for enemy employment of chemical agents. Use obscurants to support disengagement or movement of forces.

(9) *Combat Service Support.* Plan primary and alternate MSRs to support the full depth of the defense. Coordinate MSRs to avoid interfering with maneuver of obstacle plans. Specify routes for contaminated equipment movement. Also, consider the use of pre-stocked classes of supply (Classes IV and V) within the defense.

(10) *Civil Concerns.* Consideration of the higher headquarters ROE and limitations is necessary, particularly civilian effects and restrictions on fires and types of weapons. Civilians may be removed from the area or protected in their homes. Their movement and protection is a concern to the battalion in all cases. In some cases, the battalion may have to arrange for supply, transportation, and medical care for civilians.

(a) Restrictions may exist regarding use of cluster munitions, mines, nonlethal agents, obscurants, and even mortar fires. Firing into towns or in the vicinity of refugees may be prohibited. Historical and cultural features may be protected. All of this can influence the design of the defense.

(b) Consider availability of civilian assets and any limitations on use, including--

- Law enforcement support.
- Movement control.
- Transportation assets.
- Preclusion of area damage.
- Telecommunications security.
- Emergency supplies.
- Medical support.
- Decontamination support.

d. **Preparation.** During preparation, the commander and staff monitor preparatory actions and track the higher and adjacent unit situations and the enemy situation. They must update and refine plans based on additional reconnaissance and updated intelligence information. They conduct much of the preparation phase simultaneously with security operations, continuing even as forward-deployed forces gain contact with the enemy. Throughout the preparation phase, the battalion commander, company commanders, and key staff members should physically inspect preparatory activities. Weapons positioning, siting of obstacles, direct and indirect fire plans, CSS operations, and soldier knowledge of their missions are all critical checks.

(1) *Rehearsals.* The battalion and subordinate units should conduct rehearsals to practice their defense against multiple enemy COAs. The type of rehearsal executed must consider time, preparation activities, and OPSEC. Rarely will the battalion be able to conduct a full-force rehearsal given the tempo of operations and the potentially large size of the AO. It may be better for key leaders to conduct a digital or map and or terrain board rehearsal at night in order to focus their attention during periods of increased visibility on inspecting preparations and working with subordinate leaders. The rehearsal should cover--

- Reconnaissance and security operations.
- Battle handover and passage of lines.
- MBA engagement.
- Reserve employment options.
- Actions to deal with enemy penetrations, major enemy efforts along areas of risk or flank avenues of approach, and enemy actions in the rear area.

- CSS operations, particularly casualty evacuation, emergency resupply operations, and reorganization.
- Execution of follow-on missions to exploit defensive success.
- Integration of aviation assets, if available.

(2) *Monitoring Preparation.* As subordinate units position their elements and execute defensive preparations, the battalion staff monitors and coordinates their activities and the overall situation.

(a) The S2 closely 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 his PIR as the situation changes and be prepared to adjust the reconnaissance and surveillance effort to answer those questions. The S3 closely monitors the status of rehearsals and updates the plan as needed based on continuously updated intelligence and the status of preparations. The S4 analyzes the status of logistics and maintenance of equipment within the battalion to determine any required adjustments to the plan or task organization. The engineer officer monitors the progress of all engineer efforts within the AO. He continually projects the end state of this effort based on the current and projected work rates. He must identify potential shortfalls early and determine how to shift assets to make up for the shortfalls or recommend where to accept risk.

(b) As the enemy closes on the battalion's AO, the battalion 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 Class IV and V to prevent capture or loss to enemy action.
- Withdrawal of engineer forces from forward areas.
- Linkup of CS and CSS assets with reserve or other supported combat forces (if not previously accomplished).
- Review of reconnaissance and surveillance plan to ensure it still meets the commander's PIR.
- Final positioning or repositioning of reconnaissance and surveillance assets, security forces, and observers.
- Positioning of teams to close lanes in obstacles or execute reserve obstacles.
- Execution of directed, reserve, or situational obstacles.
- Periodic situation updates and issuing of final guidance to subordinates.

This time may also be used to register indirect fire targets with mortars, if not already done. The commander may also conduct a final radio, digital, or even map rehearsal with key leaders.

(3) *Security Area Actions.* Once security area forces have moved into the security area, actions in the security area predominantly focus on reconnaissance, counterreconnaissance, target acquisition, reporting, delay of the enemy main body, and battle handover. The battalion's security zone forces must integrate their actions with friendly forces forward of them, maintaining information flow and security. The battalion's elements may have to execute battle handover with those forward elements and assist them in executing a rearward passage. The security zone forces must

coordinate and cross-talk with the companies to their rear. Eventually, they must execute a rearward passage or move to the flanks of the main battle area. 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.

(4) *Reconnaissance and Surveillance.* The purposes of the reconnaissance and surveillance effort in the security zone are to provide the commander with information to support his decision-making, to provide early warning and reaction time, and to support target acquisition. Guided by the commander's CCIR, the reconnaissance and surveillance plan, and the fire support plan, reconnaissance and surveillance assets provide information that includes--

- Location, movement, and destruction of enemy reconnaissance assets.
- Speed, direction, composition, and strength of enemy formations.
- Locations of high-payoff targets such as artillery and rocket units, bridging assets, and C2 nodes.
- Enemy actions at decision points.
- Enemy flanking actions, breaching operations, force concentrations, and employment of combat multipliers.
- Battle damage assessment.
- Movement of follow-on forces.

(a) 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 JSTARS and UAVs.

(b) The total reconnaissance and surveillance effort must support the commander's decision-making. In an area defense, the commander's critical decisions normally 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.

(5) *Battle Handover.* The battle handover is the transfer of responsibility for the battle from the SBCT's security zone elements to the battalions. The higher commander who established the security force prescribes criteria for the handover and designates the location where the security forces will pass through, routes, contact points, and the battle handover line. The battle handover line is normally forward of the FEBA where the direct fires of the forward combat elements of the battalions can effectively overwatch the elements of the passing unit. The SBCT commander coordinates the battle handover with the battalion commanders. This coordination overlaps with the coordination for the passage of lines, and the two should be conducted simultaneously. Coordination normally includes--

- Establishing communications. This includes ensuring linkage on the tactical internet and effective information overlap (ensuring elements in different units can see each other in the COP).
- Providing updates on both friendly and enemy situations, facilitated through the COP, and the addition of appropriate command posts and leaders to the message groups on situation reports and updates.

- Coordinating passage, which includes identifying passage points and lanes and exchanging or disseminating digital graphics of these and obstacle overlays. If either unit is not equipped with FBCB2, the coordination requires traditional passage of lines procedure.
- Collocating C2. If both units are digital, this is not required, but it is desirable.
- Dispatching representatives to contact points and establishing liaison. If the passing unit is not digitally equipped, the stationary unit should provide escorts to relay information about the passing unit.
- Coordinating recognition signals.
- Reporting status of obstacles and routes, including digital overlays.
- Coordinating fire support, air defense, and CSS requirements, with particular attention given to casualty and equipment evacuation requirements.
- Coordinating actions to assist the security force with breaking enemy contact.
- Coordinating and exchanging maneuver, obstacle, and fire plans.
- Coordinating location of and communications to any stay-behind elements. These must be integrated into fire support coordination measures to establish NFAs.

(a) Within the battalion, the battle handover between the battalion security elements and the companies is less formal or complicated. Elements must identify rearward passage points and lanes, and the passing elements need to coordinate their movement with the element(s) covering them and through which they are moving. Frequently, the first elements to displace are the maneuver forces that were executing counterreconnaissance, moving to initial defensive positions in the MBA, or acting as the battalion or SBCT reserve. The reconnaissance platoon normally displaces to vantage points on the flanks, moves to establish surveillance on other avenues of approach, or infiltrates back to the battalion rear area.

(b) When battle handover occurs within the battalion, the MBA companies--

- Assist passage of lines and disengagement.
- Gain and maintain contact with enemy forces as battle handover occurs.
- Maintain security.
- "On order" execute reserve obstacles (battalion commander restricts authority) and "be prepared" to emplace situational obstacles (situational obstacles may or may not be executed) in the security area as the passing force withdraws. (See FM 90-7, pages 2-2 to 2-3 [FM 3-34.1 Draft].)

(6) *Security Area Engagement.* Engagements in the battalion security area are normally 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 reserve obstacles. The focal points are normally early warning and identification of the enemy main and supporting efforts in order for the commander to make decisions and position forces.

(7) *Main Battle Area Engagement.* The defensive battle is decided in the MBA by the actions of the battalions and companies and their supporting CS and CSS units.

(8) *Maneuver.* During the MBA engagement, the SBCT and battalions shift combat power and priority of fires to defeat the enemy's attack. This may require--

- Adjustment of subordinates' AOs and missions.
- Repositioning of forces.

- Shifting of the main effort.
- Commitment of the reserve.
- Modification of the original plan.

(a) Forward forces, obstacles, and fires within the MBA normally break the enemy's momentum, reduce his numerical advantage, and force his troops into positions of vulnerability. The battalion masses fires (direct and indirect) and obstacles to disrupt, fix, and then destroy attacking enemy forces as they enter the engagement areas.

(b) Depending on the defensive scheme, the battalion 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.

(9) *Cohesion.* The battalion must maintain a cohesive defense if it is to remain viable. This does not mean, however, that the forces must be massed close together. Companies can maintain cohesion with forces dispersed by maintaining a current COP, cross-talk among subordinates, and continual tracking and digital reporting of the enemy. The staff and commanders must continually assess the enemy's options and movement while identifying means to defeat them. With forces widely dispersed, continual assessment of time, distance, and trafficability factors is essential. To maintain defensive cohesion, company commanders must keep their movement, positioning, and fires consistent with the commander's defensive scheme.

(10) *Rear Area Threats.* During the MBA fight, protection of rear areas is necessary to ensure freedom of maneuver and continuity of operations. Because fighting in the rear area 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.

(a) Generally, CSS nodes in the battalion or SBCT rear area rely on positioning, movement, and self-protection for survival. They--

- Establish CSS operations in covered and concealed areas away from likely enemy avenues of approach.
- Establish and maintain perimeter security and early warning OPs, integrating weapons and crews that are in the rear for repair operations.
- Keep CSS nodes postured to move on very short notice as the security battle begins.

(b) Early warning to CSS units in the rear is critical to their survival in the event of a penetration of the MBA or an enemy attack from an unexpected area. CSS plans and rehearsals must address actions to be taken in the event of a rear area attack, including defensive measures, displacement criteria, routes, rally points, and subsequent positions to which to move.

(11) *Penetrations.* Unless the SBCT plan makes other provisions, each battalion commander is responsible for controlling enemy advances within his AO. If the enemy penetrates the defense or a penetration appears likely, the battalion commander repositions forces or commits his reserve to block the penetration or to reinforce the area where a penetration appears imminent. Simultaneously, the battalion commander allocates all indirect fires to support the threatened area. Additionally, he must alert the SBCT commander to the threat and that he has committed his reserve force (if

applicable). The battalion commander may have to commit attached engineers to assist in containing the penetration or constitute a new reserve from the engineers.

(a) If a penetration threatens the battalion, the commander may take several actions to counter the situation. In order of priority, he may do any or all of the following:

- Allocate priority of all available indirect fires, to include 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 may not be possible if adjacent units are already decisively engaged.
- Commit the reserve to reinforce the threatened unit.
- Commit the 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.

(b) When a penetration occurs, units within the MBA continue to fight, refusing their flanks and engaging the enemy's flanks and rear. The penetrated force must attempt to hold the shoulders of 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 may include security missions or the establishment of blocking positions. Adjacent units may also need to reposition forces, readjust subordinate AOs and tasks, or commit their reserve. MBA forces attempt to reestablish contact across the area of penetration when possible.

(12) *Counterattack.* The battalion may conduct local counterattacks to restore or preserve defensive integrity. Unless defensive operations have left the battalion largely unscathed, the battalion usually lacks the ability to conduct a significant counterattack by itself. Within the context of the SBCT's operations, a defending battalion may execute a counterattack in support of the SBCT's defensive posture, as part of a larger force seeking to complete the destruction of the enemy's attack, or as part of a transition to offensive operations.

(13) *Defense of an Extended Area of Operation.* With information dominance, air superiority, and access to dynamic obstacles and extensive long-range fire support, the SBCT can defend in a greatly enlarged AO. When it does so, the battalions defend as semi-independent entities, aware of their surroundings in great detail and supported with responsive fires and MI assets but without direct contact with one another and beyond the immediate support of reserve forces. Essentially, these operations are area defenses with exceptionally low force-to-space ratios.

(a) Battalions defending in extended AOs base their operations on information dominance, superior intelligence, tactical agility, long-range fires, and continuous freedom of action. Based on a defensive concept that clearly divides responsibilities between SBCT headquarters and the battalions, they employ massed long-range fires and other combat effects to immobilize, disorganize, and destroy enemy forces across a broad area. Close combat in these operations is limited to short, violent counterattacks or direct fire ambushes against damaged, vulnerable fragments of the enemy's force.

(b) Battalion maneuver plans for defense in an extended AO resemble delays; their commanders position companies to deny key terrain, to observe the enemy at long range, and to move as necessary to attack the enemy with long-range fires while preserving their

freedom of action. Rather than consistently withdrawing under pressure, however, the battalion advances, displaces laterally, and withdraws as the enemy loses forces or gains ground. The battalion may use routes, phase lines, areas of operation, and directions of attack to control the movement of companies and platoons.

(c) The SBCT and division staffs must assure that battalions defending in this manner maintain a highly accurate view of the enemy, the environment, and significant civilian factors. Some sensors and their downlinks may be directly assigned to the battalions for these operations. Elements of the cavalry squadron (RSTA) and divisional aviation elements assist the battalions in defending these large areas, assuming responsibility for specified enemy forces as the situation develops. Maintaining contact with the enemy and sustaining observation of every part of the AO is of special importance in a defense of this type. Losses of reconnaissance and surveillance coverage demand immediate attention.

(d) A defense in an extended AO heavily tasks the battalion fire support officer. The company FISTs are widely separated and may require simultaneous high-priority support. Additionally, they commonly must coordinate CAS and attack helicopter support. The FSO's workload can be reduced by a concept of fire support that assigns a large part of the coordination responsibility to the SBCT FSO, but he is also heavily tasked because of the SBCT's expanded area of operations.

(e) The battalion's understanding of the terrain, weather, and radio-electronic environment is crucial to its success. To exploit information dominance, the battalion must understand the mobility potential of the area and maintain current intelligence that confirms the status of obstacles and routes. The battalion must anticipate changing weather and visibility conditions accurately in time to adjust its dispositions without losing control of the defended area. It must foresee enemy air assaults or strikes against choke points in the depth of the defended area and account for them either by tactical counteraction or by strong air defense of vital points.

(f) Threats to communication also pose special problems for the battalion when it defends in an extended AO. Digitized C2 assets are key to defending effectively in a large AO. The SBCT and division signal officers must provide redundant networks to ensure current information and orders reach the battalion, which then distributes them to companies. The battalion must establish priorities for information transfer and command and control to allow it to continue operating if the digital system is impaired. Special means of ensuring contact with all friendly forces--retransmission stations, relays, and additional radios--also merit attention in planning for operations in an extremely large AO.

(g) When defending in extended areas, the battalion performs land management tasks in many cases that are more typical of SBCT operations. Getting sensors, forward arming and refueling points (FARPs), field artillery (FA) systems, aid stations, CSS collection and supply points, and command posts far enough forward to function may necessitate positioning them in the battalion AO. While the battalion should not be required to defend such sites, it must follow their movements and clear their occupation of positions.

(h) The CSS effort also demands special planning and nearly flawless execution. The distances between companies, mortar positions, command posts, and other battalion elements adds considerably to the time necessary to move supply, maintenance, and medical support teams. Moving logistical elements over such distances calls for CSS

leaders who can move quickly and adapt to friendly maneuver while en route across open spaces between units. Planners must provide for emergency resupply of fuel and ammunition, and battalion elements must be trained to receive it.

(i) Casualty evacuation assumes special importance because of the moral imperative of caring for wounded soldiers and the difficulty inherent in widely dispersed operations. In some cases, defending over extended frontages and depths requires the battalion to be augmented with supporting air ambulance units and positioning of those units inside the battalion AO.

(j) Transitioning to the offense depends on defeating the enemy decisively and on promptly recognizing that defeat. The SBCT commander must provide the planning and warning that precedes these transitions. Battalion and company commanders must be ready to confirm sensor indications of enemy condition and to recommend transition to the offense as they sense the enemy's defeat.

5-5. MOBILE DEFENSE
The mobile defense concentrates on the destruction or defeat of the enemy through a decisive counterattack. A mobile defense requires considerable depth in the area of operations in order for the commander to shape the battlefield, causing the enemy to extend his lines of communication and support, expose his flanks, and dissipate his combat power. The focus is on defeating or destroying the enemy by allowing him to advance to a point where he is exposed to a decisive counterattack by the striking force. The striking force is a dedicated force composed of the bulk of the combat power and weighted with the majority of the available combat multipliers. A fixing force shapes the battlefield and the enemy, setting the conditions for the striking force. Battalions may participate in the mobile defense as an element in the fixing force conducting a delay or area defense. Battalions may also constitute an element of the striking force conducting offensive operations. (See Chapter 4 for discussion of offensive operations.)

5-6. RETROGRADE OPERATIONS
The retrograde is a type of defensive operation that involves organized movement away from the enemy (FM 3-0). The enemy may force these operations or a commander may execute them voluntarily. In either case, the higher commander of the force executing the operation must approve the retrograde. Retrograde operations are conducted to improve a tactical situation or to prevent a worse situation from developing. Battalions normally 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 battalion's higher headquarters must approve the operation. Retrograde operations accomplish the following:

- Resist, exhaust, and defeat enemy forces.
- Draw the enemy into an unfavorable situation.
- Avoid contact in undesirable conditions.
- Gain time.
- Disengage from battle for use elsewhere in other missions.
- Reposition forces, shorten lines of communication, or conform to movements of other friendly units.

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: Maintenance of 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.

5-7. DELAY

In a delay, the battalion trades space for time and inflicts maximum damage on the enemy while avoiding decisive engagement at the battalion level. 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 normally more important than gaining time. The commander establishes risk levels for each delay but ordinarily maintaining freedom of action and avoiding decisive engagement is of ultimate importance. The battalion 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. 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.

a. **Two Forms of Delay.** Based upon the commander's intent and METT-TC, a delay mission can have essentially two forms: delay within an area of operations or delay forward of a specific control measure.

(1) ***Delay within an Area of Operations.*** The battalion may be assigned a mission to delay within an area of operations. The higher commander normally provides guidance regarding intent and desired effect on the enemy, but he minimizes restrictions regarding terrain, time, and coordination with adjacent forces. This form of a delay is normally assigned when force preservation is the highest priority and there is considerable depth to the SBCT or division's area of operations.

(2) ***Delay Forward of a Specified Line for a Specified Time.*** The battalion may be assigned a mission to delay forward of a specific control measure for a specific period of time. This mission would be assigned when the SBCT or battalion 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 for the battalion, with the likelihood of part of or the entire unit becoming decisively engaged. The timing of the operation is controlled graphically by a series of phase lines with associated dates and times to define the desired delay-until period.

b. **Culmination of the Delay.** Delay missions usually conclude in one of three ways--a defense, a withdrawal, or a counterattack. Planning options should address all three possibilities.

5-8.   DELAY ORGANIZATION

The battalion's organization of its forces depends on how the SBCT has structured its forces unless the battalion operates independently. The SBCT normally organizes into a security force, main body, and reserve, but an extended AO may preclude the use of SBCT-controlled security forces and reserves. In this case, the SBCT may direct the battalion to organize its own security, main body, and reserve forces--the same as if the battalion were operating independently. The SBCT commander can designate a battalion as the security or reserve force for the SBCT. If the battalion has to establish a security force, it normally uses the reconnaissance 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 battalion main body usually locates well forward in the AO, then fights from a series of subsequent positions. The reserve force, normally one or two platoons, is used to defeat enemy penetrations or to assist units with breaking contact.

5-9.   DELAY PLANNING CONSIDERATIONS

The delay requires close coordination of forces and a clear understanding by subordinates of the scheme of maneuver and commander's intent. The potential for loss of control is very high in delay operations, making cross-talk 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 options.

a. **General Considerations.** 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 combat multipliers, 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 (companies delay in sector, control by battle positions, or some other method).
- Integration of obstacle intent and essential fre support tasks (EFSTs).
- Likely subsequent mission, transition point(s), and conditions.

b. **Battalion Order.** The battalion order must clearly articulate the parameters of the delay mission. It specifically addresses subordinate missions in terms of space, time, and friendly strength. It also provides directions for actions if the subordinate commander is unable to meet the terms of his delay mission. The following is an example of the parameters of a delay mission issued to a subordinate battalion.

> **EXAMPLE**
>
> Mission: Battalion 3-6 IN delays to disrupt enemy forces forward of PL Blue (*space*) until 010400 Sep XX (*time*) to allow the remainder of the SBCT to complete defensive preparations (*why*).
>
> Tasks to maneuver unit (3-6 IN): Retain at least 70% combat power (*friendly strength*). Force preservation is more important than time (*priority*). If unable to meet mission parameters, provide at least 30 minutes' warning before initiating rearward passage. Upon completion of rearward passage, assume SBCT reserve mission positioned vicinity BP 17.

c. **Effects of Terrain.** The staff analyzes the effects of terrain and the anticipated enemy situation to identify positions that offer the best opportunity to engage, delay, and inflict damage on the enemy force. As the staff develops delay positions and control measures, it calculates enemy closure rates and compares them to friendly displacement rates between positions. Time and space factors dictate the amount of time subordinate units have to engage the enemy and move before becoming decisively engaged; these factors are calculated for each avenue of approach. The staff develops triggers for displacement to positions in depth.

d. **Enemy Vulnerabilities.** The staff analyzes the terrain and expected enemy situation to identify advantageous locations from which to engage the enemy at existing obstacles such as chokepoints or urban or complex terrain. The staff also considers possible locations to plan counterattacks. Situational and event templates must tell the commander and staff where the enemy is likely to be at certain times. This helps them decide where to emplace obstacles, where to mass fires, and if or where decisive engagement is likely or required.

e. **Maneuver Considerations.** The staff considers maneuver actions, fires, obstacles, and the employment of other supporting assets necessary to degrade the enemy's mobility and support friendly forces' disengagement to subsequent positions. This is especially critical at locations and times when companies or the entire battalion may become decisively engaged with the enemy. As the staff develops and refines the plan, it develops decision points for key actions. This includes triggers for the employment of fires and situational or reserve obstacles; displacement of subordinate units to subsequent positions; and movement of indirect fire assets, C2 facilities, and CSS units. The staff also selects routes for reinforcements, artillery, CPs, and CSS elements to use and synchronizes their movements with the delaying actions of forward units.

5-10. DELAY SCHEME OF MANEUVER

The scheme of maneuver must allow the battalion to dictate the pace of the delay and maintain the initiative. The commander selects positions that allow his forces to inflict maximum damage on the enemy, support their disengagement, and enable their withdrawal. He may choose to delay from successive or alternating delay positions, depending on the strength of the companies and the size of the AO.

a. **Areas of Operations.** At the SBCT level, areas of responsibility are defined by establishing AOs for each battalion and developing control measures to ensure adequate

controls while supporting decentralized freedom of action. The SBCT normally assigns deep, parallel AOs to delaying battalions. Each enemy avenue of approach is assigned to only one subordinate unit. Boundaries are used to define battalion AOs. When boundaries are drawn, terrain that provides fields of fire and observation into an area is assigned to the unit responsible for that AO or BP. The SBCT commander may also use phase lines to control the timing and movement of delaying units. Assigning time minimums to delay by phase lines constrains battalion commanders to delaying on or forward of those lines at least until the specified time. Contact points and other control measures are established to support flank unit coordination. The commander and his staff make provisions for coordinated action along avenues of approach that diverge and pass from one subordinate AO to another.

b. **Control Measures.** The battalion commander may decide to add additional control measures, to include phase lines, battle positions, engagement areas, or attack-by-fire positions, that allow the battalion commander to direct the fight more closely and give subordinates a clearer picture of how he envisions fighting the delay.

c. **Delay Positions.** When determining the scheme of maneuver, positions should incorporate as many of the following characteristics as possible:

- Good observation and long-range fields of fire.
- Covered or concealed routes of movement to the rear.
- A road network or areas providing good cross-country trafficability.
- Existing or reinforcing obstacles to the front and flanks.
- Maximize use of highly defensible terrain.

5-11. MAXIMIZING THE USE OF TERRAIN IN A DELAY

Delay positions should be on terrain that controls likely enemy avenues of approach and allows engagements against the enemy where his movement is most canalized and facilitates maximum delay with minimum forces. Long-range direct fires are highly desirable because they force the enemy to deploy and move carefully and because they reduce the likelihood of unintended decisive engagement of companies and platoons. Integrating force positioning and movement with terrain, fires, and situational obstacles helps inflict maximum damage on the enemy while allowing friendly freedom of maneuver and disengagement. If not constrained by commander's guidance and rules of engagement, the cover and movement restrictions of urban areas should be extensively exploited if they cannot be readily bypassed.

5-12. FORCING THE ENEMY TO DEPLOY AND MANEUVER IN A DELAY

Engagement at maximum ranges of all weapons systems causes the enemy to take time-consuming measures to deploy, develop the situation, and maneuver to drive the delaying force from its position. An aggressive enemy commander will not deploy if he correctly determines that friendly forces are delaying; he will use his mass and momentum to develop sufficient pressure to cause friendly forces to fall back or become decisively engaged. Therefore, the delay must include the deadly integration of direct and indirect fires and situational obstacles to make the enemy doubt the nature of the friendly mission and leave him no choice but to deploy and maneuver.

5-13. AVOIDING DECISIVE ENGAGEMENT IN A DELAY

A key to a successful delay is to maintain a mobility advantage over the attacking enemy and avoid decisive engagement. The battalion seeks to increase its mobility while degrading the enemy's ability to move. The battalion improves its mobility by--

- Maintaining contact with the enemy, maintaining reconnaissance and security on flanks, and coordinating with adjacent units to prevent forces from being isolated.
- Reconnoitering routes and BPs.
- Improving routes, bridges, and fording sites between delay positions, as time and resources permit.
- Using indirect fires and obstacles to support disengagement and to cover movement between positions.
- Task-organizing and positioning breaching assets within subordinate formations to breach enemy scatterable mines rapidly.
- Using multiple routes.
- Controlling traffic flow and restricting refugee movements to unused routes.
- Keeping logistical assets uploaded and mobile.
- Caching ammunition on rearward routes. Ensure that units know the locations of these supply points (create a supply point icon in FBCB2). If possible, the supply point should be guarded and prepared for destruction if not used by delaying forces.
- Task-organizing additional medical and equipment evacuation assets to the battalions to increase their ability to disengage and displace rapidly.
- Positioning air defense assets to protect bridges and choke points on rearward routes.

The battalion degrades the mobility of the enemy by--

- Maintaining continuous pressure on the enemy throughout the area of operation.
- Attacking logistics as well as maneuver and fire support assets.
- Occupying and controlling chokepoints and key terrain that dominates high-speed avenues of approach.
- Destroying enemy reconnaissance and security forces, which blinds the enemy and causes him to move more cautiously.
- Engaging at maximum ranges.
- Employing a combination of directed, situational, and reserve obstacles.
- Employing indirect fires, smoke, and CAS, if available.
- Using deception techniques such as dummy positions.

5-14. PARAMETERS OF THE DELAY ORDER

As previously noted in paragraph 5-9, an order for a delay order must specify certain parameters. The parameters are normally expressed in an OPORD in Paragraph 3, Tasks to Maneuver Units.

a. First, it must direct one of two alternatives--delay throughout the depth of the AO or delay forward of a specific line or area for a specific period of time. A mission of delay within an AO implies that force integrity is a prime consideration. In this case, the

battalion delays the enemy as long as possible while avoiding decisive engagement. If the delaying force is ordered to hold the enemy forward of a given phase line (PL) for a specified time, mission accomplishment outweighs preservation of the force's integrity. Such a mission may require the force to defend a given position until ordered to displace.

b.   The second parameter the order must specify is what is acceptable risk. Acceptable risk ranges from accepting decisive engagement in an attempt to hold terrain for a given period of time to avoiding decisive engagement in order to maintain the delaying force's integrity. The depth available for the delay, the time needed by the higher headquarters, and subsequent missions for the delaying force determine the amount of acceptable risk.

c.   Third, the order must specify whether the delaying force may use the entire AO or whether it must delay from specific BPs. A delay using the entire AO is preferable, but a delay from specific positions may be required to coordinate two or more units in the delay.

d.   The battalion order and commander's intent should define for the companies what the scheme of maneuver is, what the priorities are, and how much freedom the subordinate leaders have in maneuvering their forces. The battalion commander usually gives a company commander very little freedom, unless the company is delaying on an avenue of approach that is essentially isolated. The battalion commander specifies constraints on maneuver and requirements for coordination. He defines the criteria for disengagement and movement to subsequent positions or areas and a series of battle positions, checkpoints, or phase lines from which, or forward of which, the company must fight.

5-15.   ALTERNATE AND SUBSEQUENT POSITIONS IN A DELAY

In planning, if the commander chooses to delay using battle positions, he can use either alternate positions or subsequent positions. In both techniques, the delaying forces maintain contact with the enemy between delay positions. Table 5-1 shows the advantages and disadvantages of the two techniques.

METHOD OF DELAY	USE WHEN. . .	ADVANTAGES	DISADVANTAGES
Delay from subsequent positions.	AO is wide. Forces available are not adequate to be positioned in depth.	Reduced fratricide risk. Ease of C2. Repeated rearward passages not required.	Limited depth to the delay positions. Easier to penetrate or isolate units. Less time is 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 C2; requires continuous coordination. Requires passage of lines, increasing vulnerability and fratricide potential.

Table 5-1. Comparison of methods of delay.

a. **Delay from Alternate Positions.** In a delay from alternate positions (Figure 5-5, page 5-26), two or more units in a single AO occupy delaying positions in depth. As the first unit engages the enemy, the second occupies the next position in depth and prepares to assume responsibility for the operation. The first force disengages and passes around or through the second force. It then moves to the next position and prepares to reengage the enemy while the second force takes up the fight. Both the SBCT and battalion can use this scheme of maneuver. At the SBCT level, if the AO is narrow, the SBCT employs battalions in depth occupying alternate positions. This enables the SBCT to develop a strong delay, with forces available to counterattack or assist in the disengagement of the battalion in contact. At the battalion level, using alternate positions helps maintain pressure on the enemy and helps prevent platoons or companies from being decisively engaged. A delay from alternate positions is particularly useful on the most dangerous avenues of approach because it offers greater security and depth than a delay from subsequent positions. However, it also poses the highest potential for fratricide and vulnerability as units pass through or near each other.
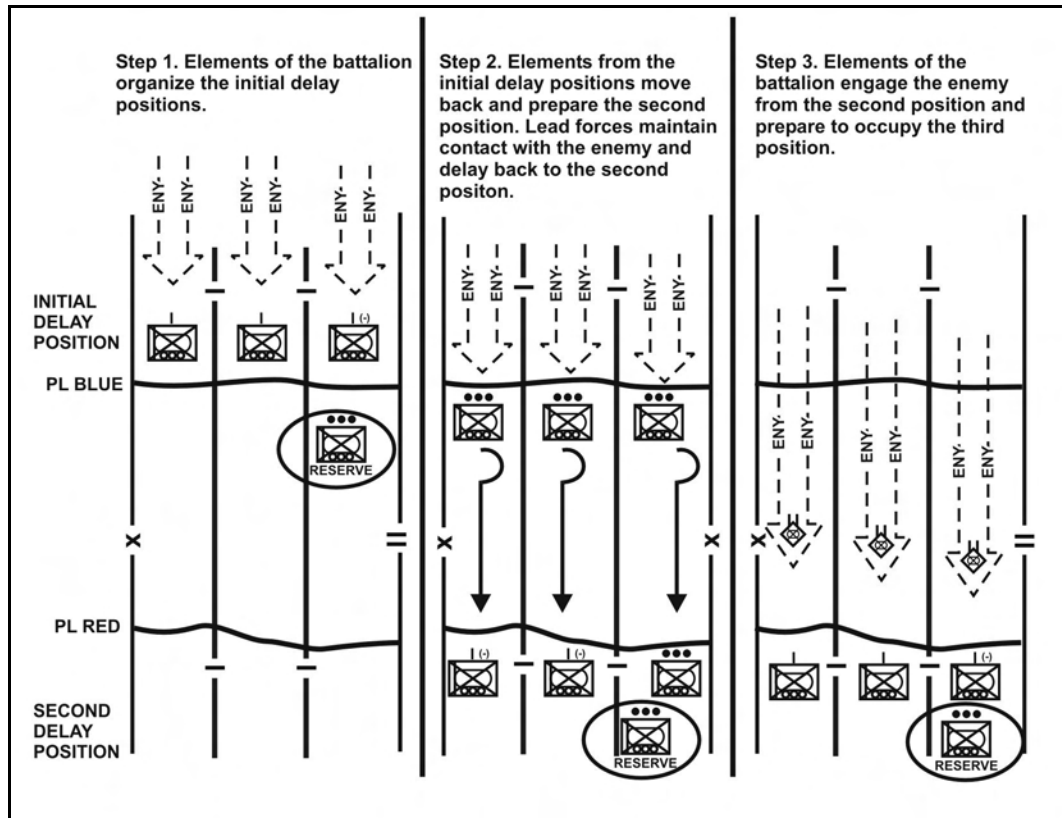
Figure 5-5. Delay from alternate positions.

b. **Delay from Subsequent Positions.** The battalion uses a delay from subsequent positions (Figure 5-6) when the assigned AO is so wide that available forces cannot occupy more than a single tier of positions. This is the more common form of a delay operation given the expanded battlespace in which the SBCT and battalions normally operate. In a delay from subsequent positions, the majority of forces are arrayed along the same phase line or series of BPs. The forward forces delay the enemy from one PL to the next within their assigned AOs. At battalion level, this is the least preferred method of delaying since there is a much higher probability of forces becoming isolated or decisively engaged, particularly if the delay must be maintained over more than one or two subsequent positions. Additionally, the battalion has limited ability to maintain pressure on the enemy as it disengages and moves to subsequent positions unless it has been allocated additional (and adequate) indirect fire support.
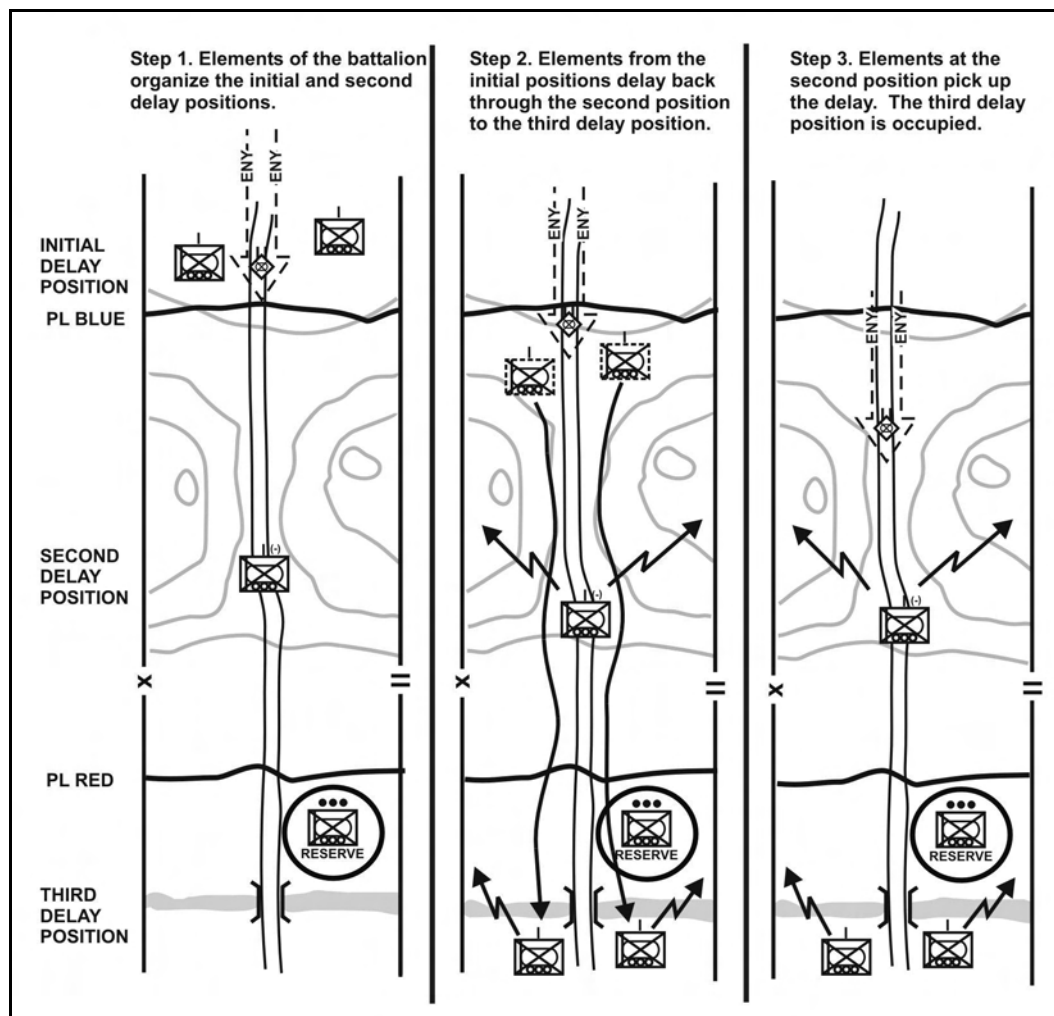
Figure 5-6. Delay from subsequent positions.

5-16. FIRE SUPPORT IN A DELAY
The following are key considerations for the fire support plan:
- Attack the enemy throughout the AO.
- Engage the enemy with fires to inflict casualties and disrupt his approach before he gets to friendly delaying positions. Plan final protective fires (FPFs) for each series of delaying positions to support disengagement.
- Integrate fires of the battalion mortars into all fire plans.
- Mass fires on high-payoff targets and canalizing terrain to limit the momentum of the enemy's attack.
- Ensure fires are tied to obstacles.
- Plan and designate priority targets along routes from one delaying position to the next.
- Mass all available fire support to support disengagements.
- Use smoke to screen friendly movements and for deception.

5-17. ENGINEER SUPPORT IN A DELAY
The following are key considerations for the scheme of engineer operations:
- When operating within a large AO, task-organize countermobility assets to companies, decentralizing control and execution.
- Task-organize mobility assets to companies to support mobility requirements. Consider logistical requirements and support of CSS assets in task-organizing mobility assets.
- Develop the obstacle plan to support disengagement of delaying forces and to shape the enemy's maneuver to meet the commander's intent. Consider countermobility requirements for all delaying positions throughout the depth of the AO. Integrate SCATMINES at delay positions to support disengagement and movement to subsequent positions.
- Consider the impact of the obstacle effort on the movement of friendly forces and future operations. Develop obstacle restrictions, establish lanes and guides, and employ situational or reserve obstacles to support mobility requirements. Provide for closing lanes behind friendly forces with scatterable or hand-emplaced mines.
- Develop clear criteria for execution of situational and reserve obstacles. Integrate decisions for their execution in the decision support template.
- Construct survivability positions in depth, as required, to support repositioning forces.

5-18. AIR DEFENSE SUPPORT IN A DELAY
The following are key considerations for the air defense plan:
- Synchronize the movement and positioning of ADA assets with the delaying forces.
- Ensure adequate air defense coverage of friendly forces during movements from one delaying position to another. Consider protection along movement routes, chokepoints, and bridges that friendly forces intend to use.

5-19. NUCLEAR, BIOLOGICAL, AND CHEMICAL SUPPORT IN A DELAY
Brigade planning defines NBC operations in the delay. Battalions may coordinate for reconnaissance assets if available in the SBCT. Decontamination operations in the delay focus on individual and crew operational decontamination procedures until the conclusion of the operation, when thorough decontamination can be accomplished. If smoke generators are available, the battalion may employ them for deception, obscuring movement and positions, or obscuring portions of the battlefield to reduce enemy visibility and ease of movement.

5-20. COMBAT SERVICE SUPPORT IN A DELAY
CSS for a delay is particularly complex. Communication within the CSS system, accurately tracking the battle, and anticipating support requirements are especially important. The following are key CSS planning considerations:

- Keep the CSS assets mobile and supplies uploaded.
- Task-organize additional ambulances and recovery vehicles to the companies. Request heavy equipment transports (HETs) to support rapid evacuation of damaged equipment.
- Emphasize maintenance support forward with short evacuation times; use all available assets (to include firepower-damaged vehicles) to evacuate damaged vehicles to the rear.
- Synchronize refueling and resupply operations with the scheme of maneuver and the anticipated enemy situation to ensure continuity of support. Increase emergency Class III and V supplies positioned forward.
- Do not coordinate for throughput too far forward, which might cause assets to be caught in the fight or add to route congestion. Depending on the situation, this may not apply during the initial preparations for the delay.
- Plan routes for CSS assets that do not conflict with maneuver elements.

5-21. DELAY PREPARATIONS

Defensive preparations discussed in Section II also apply during the conduct of a delay.

a. **Inspections.** The commander inspects planning and preparations of his subordinate units to ensure--

- Maneuver, fire, and obstacle plans are consistent with his intent.
- Flank coordination between delaying companies is conducted to maintain cohesion and mutual support during the delay.
- Defensive preparations are proceeding according to established timelines.
- All leaders have a clear understanding of the scheme of maneuver and the commander's intent.

b. **Rehearsals.** When conducting a rehearsal for a delay, key leaders practice the operation against all feasible enemy COAs to promote flexibility of decision-making, plans, and execution. The commander examines each subordinate unit commander's plan as he fights the delay during the rehearsal and pays close attention to the following:

- Direct and indirect fire instructions.
- Timing of movements (to include during periods of limited visibility) and delaying actions from one position to the next with special attention paid to the disengagement criteria.
- Means and methods of disengaging from the enemy and maintaining contact with the enemy as the force moves to subsequent positions.
- Execution of situational and reserve obstacles to include closure of lanes.
- Movement times, routes, and positioning of CS and CSS assets.

The commander also rehearses plans to deal with potential reverses such as enemy penetrations and unanticipated decisive engagement. The rehearsal serves to further synchronize the movement of combat forces, CS, and CSS units. It is especially important to portray movement times and required routes realistically during the rehearsal to identify potential conflicts.

5-22. EXECUTION OF A DELAY

The battalion moves key forces and support assets to prepare for the delay. This initial movement includes movement into the security area and MBA.

a. **Security Area Actions.** Delaying forces normally occupy the FLOT without a security force to their front. If the SBCT can create a security area force for a delay, the battalion may position the reconnaissance platoon in a screen behind the SBCT force to maintain observation, provide early warning, and to adjust indirect fires to continue the disruption and attrition of the attacking enemy. As the enemy closes into and through the security area, the screening forces move back through or around the initial main body positions to subsequent positions that allow them to observe the main battle area and assist in the disengagement and movement of forces to their next positions.

b. **Main Battle Area Engagement.** The battalion uses fires and obstacles to force the enemy to deploy and attack. Its masses effects quickly for a short period to inflict the maximum damage on the enemy at the maximum range. To avoid decisive engagement, the battalion must disengage before the enemy can breach obstacles or mass effective fire on the delay position. Observers positioned to the flanks in depth continue to observe and shift indirect fires as forces delay to subsequent positions. Companies may move by bounds within the battalion or company to maintain direct fires on the enemy and cover movement. Short, intense engagements at near maximum range with sustained indirect fires and covering obscurants are the key to successful delay operations.

c. **Controlling the Delay.** The battalion commander must closely control the disposition, displacement, and maneuver of his forces in order to maintain the cohesion of the delay operation and keep the entire battalion synchronized with the remainder of the SBCT. FBCB2 represents a major advantage in force tracking. Given the potential for loss of positive control, it is critical that the commander clearly establish parameters for displacement.

(1) As it executes the delay, the battalion and company commanders must continually assess their situations and requirements to displace with the following considerations:

- What are the size, activity, and location of attacking enemy forces? Are elements of the battalion threatened with decisive engagement or bypass?
- What is the status of adjacent units?
- Are supporting assets, particularly artillery and mortars, postured to support movement? If not, how long will it take them to be ready?
- Are the obstacles supporting the present position still intact and effective?
- Are direct and indirect fires effective?
- How strong is this position in relation to other positions the force might occupy?
- What is the ammunition status?
- Are displacement routes clear?

(2) The battalion must always make decisions about displacement and timing in the context of the commander's intent and priority for the delay (for example, is time more important than force preservation, or vice versa?). In many instances, the battalion or elements of it must accept decisive engagement to execute the mission and then break contact as the situation permits or in conjunction with another force's counterattack.

d. **Counterattacks.** The battalion can rarely execute a substantial counterattack during a delay by itself unless it is part of the larger SBCT scheme of maneuver. Generally, counterattacks executed by the battalion in its own scheme of maneuver are platoon- to possibly company-size counterattacks to support disengagement of forces or to destroy penetrations. Whenever possible, the SBCT executes counterattacks to counter

penetrations, to gain a temporary degree of initiative or freedom of action, and to avoid a predictable pattern of operation.

e. **Decisive Engagement.** The battalion and companies avoid becoming decisively engaged except when necessary to prevent the enemy from reaching a specified area too early or when a part of the force must be risked to protect the entire force. If elements of the battalion are threatened with decisive engagement or have become decisively engaged, the commander may take actions to support their disengagement. In order of priority, he may do any of the following:

- Allocate priority of all supporting fires to the threatened unit. This is the most rapid and responsive means of increasing the unit's combat power.
- Employ CAS or attack helicopters to suppress the enemy and restore freedom of maneuver to the battalion.
- Reinforce the unit. In a delay mission, particularly in a large AO, the battalion may not be able to do this quickly enough with ground maneuver forces.
- Conduct a counterattack to disengage the unit.

Once forces have become decisively engaged, they must not break contact without adequate measures by the battalion to prevent the enemy from rapidly pursuing and destroying the force piecemeal.

f. **Terminate the Delay.** A delay mission ends with another planned mission such as a defense, withdrawal, or attack. Ideally, an SBCT or battalion that has been delaying conducts a rearward passage of lines through the established defense of another friendly force. Digitized C2 makes this difficult operation far less dangerous than it is with analog C2. The battalion executes its actions in the context of the SBCT's actions. If it defeats the enemy attack during the delay, the SBCT may--

- Maintain contact while another force counterattacks.
- Withdraw to perform another mission.
- Transition to the offense.

In all cases, the commander must plan for the expected outcome of the delay based on the situation and the higher commander's plan.

5-23. WITHDRAWAL

Withdrawal is a planned operation in which a force in contact disengages from an enemy force. Withdrawals may or may not be conducted under enemy pressure. Withdrawals are either assisted or unassisted.

a. **Assisted.** The assisting force occupies positions to the rear of the withdrawing unit and prepares to accept control of the situation. It can also assist the withdrawing unit with route reconnaissance, route maintenance, fire support, and CSS. Both forces closely coordinate the withdrawal. After coordination, the withdrawing unit delays to a battle handover line, conducts a passage of lines, and moves to its final destination.

b. **Unassisted.** 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. CSS and CS elements normally withdraw first, followed by combat forces. To deceive the enemy as to the friendly movement, the SBCT or battalion may establish a detachment left in contact if withdrawing under enemy pressure. As the unit withdraws, the detachment left in contact disengages from the enemy and follows the main body to its final destination.

5-24. WITHDRAWAL ORGANIZATION

As with the delay, how the battalion structures its force is a function of how the SBCT organizes. The SBCT normally organizes into a security force, main body, and reserve. It may elect to use a single battalion or elements of a battalion as the security or reserve force. It may also organize a detachment left in contact or stay-behind forces if required by the enemy situation. If operating independently, the battalion organizes itself in the same manner. FBCB2 is a major asset in withdrawals, and the battalion should plan for its continuous operations before withdrawals.

a. **Security Force.** 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 combat multipliers beyond that normally allocated to a force of its size. When withdrawing under enemy pressure, the security force establishes or operates as a detachment left in contact to provide a way to break contact from the enemy sequentially. When conducting the withdrawal without enemy pressure, the security force acts as a rear guard because the most probable threat is a pursuing enemy.

b. **Detachment Left In Contact.** The detachment left in contact (DLIC) is an element that is 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 SBCT or battalion is still in position while the majority of the unit withdraws. The detachment left in contact should be one of the strongest of the subordinate units with the most capable leadership. It will be the unit under the greatest pressure, and the success of the withdrawal often depends on its effectiveness. The commander must establish specific instructions about what to do if the enemy attacks and when and under what circumstances to delay or withdraw. The SBCT organizes a detachment left in contact in one of three ways (Figure 5-7).
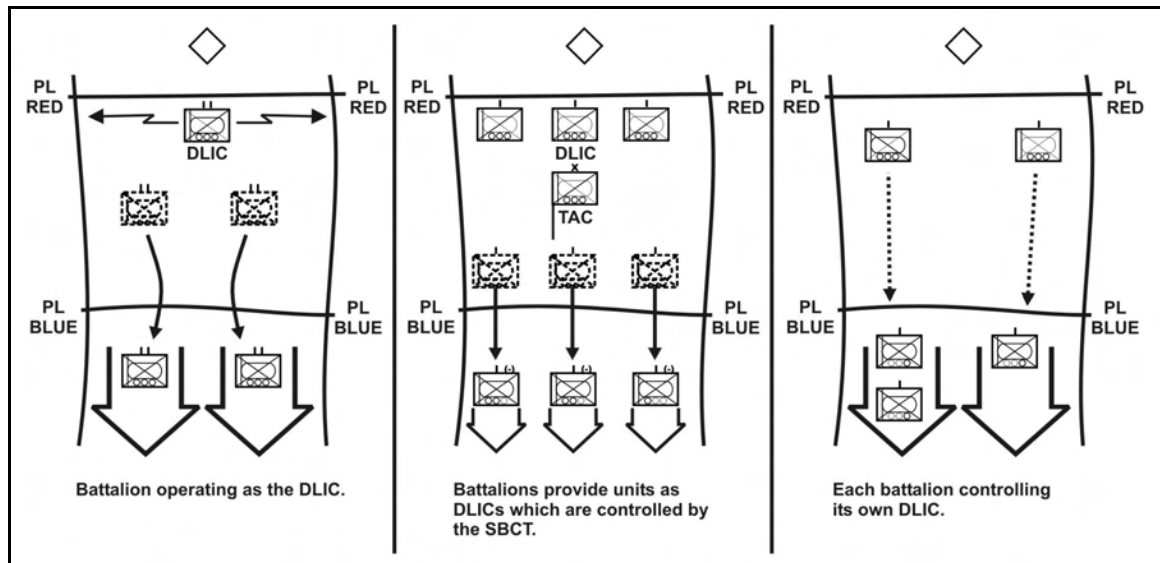
Figure 5-7. Methods for organizing the detachment left in contact.

(1) *Single Battalion.* A single battalion operates as the detachment left in contact. This is the most effective option since it provides for effective task organization and C2.

(2) ***DLIC Element Formed from each Battalion.*** Each battalion provides forces for the detachment-left-in-contact mission. The resulting DLIC element then operates under the SBCT's control. This is the least desirable option since it complicates C2 and task organization and requires significant changes to the communications architecture. The SBCT most commonly uses this option when the subordinate battalions have lost significant portions of their command and control capabilities.

(3) ***Battalion Control of Separate DLICs.*** Each battalion establishes and controls its individual detachment left in contact. The SBCT uses this option when it is operating over a wider area or one with multiple corridors in the withdrawal AO. It allows for effective dispersion of forces while maintaining standard C2 relationships.

c. **Company DLIC.** When the battalion is the DLIC or has its own DLIC (subparagraphs 1 and 3 above), it normally gives the mission to a company. Again, the company left in contact should be the most capable of the subordinate units. The battalion should establish an advance guard on its route of movement. It may designate a company or the reconnaissance platoon reinforced with MGS, infantry, and mortars as the advance guard. The battalion should task-organize both the DLIC and the advance guard with engineers, with mobility assets going to the advance guard and obstacle and mobility assets going to the DLIC. The battalion main body consists of the remaining companies, command posts, CSS assets, remaining engineers, and the mortars (if they are not task-organized to support either the DLIC or the advance guard). The battalion may designate a reserve platoon from the single company in the main body. To create flank security, it uses the reconnaissance platoon, engineers, or elements of the main body team.

5-25. WITHDRAWAL PLANNING CONSIDERATIONS

Because the force is most vulnerable if the enemy attacks, the commander and staff normally plan for a withdrawal under enemy pressure. It also develops contingency plans for a withdrawal without enemy pressure.

a. **Planning Considerations.** During planning, the commander and staff specifically consider the following:

- Disengagement criteria (time, friendly situation, enemy situation).
- Plan for a deliberate break in contact from the enemy.
- Plan for deception to conceal the withdrawal for as long as possible.
- Rapid displacement of the main body, safeguarded from enemy interference.
- Selection and protection of withdrawal routes and alternates.
- Siting of obstacles behind the DLIC to complicate pursuit.

b. **Commander's Intent.** The commander develops his vision of the battle based on withdrawing under enemy pressure. He must determine the composition and strength of the security force, main body, and reserve. The commander must clearly define how he intends to deceive the enemy as to the execution of the withdrawal; how he intends to disengage from the enemy (use of maneuver, fires, and obstacles); and the final end state of the operation in terms of time, location, and disposition of forces.

5-26. WITHDRAWAL SCHEME OF MANEUVER

A withdrawal may be assisted or unassisted and may take place with or without enemy pressure. The plan considers which of the variations the battalion faces based on the higher headquarters' order and the enemy situation.

a. **Assisted Withdrawal.** In an assisted withdrawal, the staff coordinates the following with the assisting force:

- Actions of the assisting security force that the battalion will pass through or around.
- Reconnaissance of withdrawal routes.
- Forces to secure choke points or key terrain along the withdrawal routes.
- Elements to assist in movement control, such as traffic control points.
- Required combat, CS, and CSS to assist the withdrawing battalion in disengaging from the enemy.

b. **Unassisted Withdrawal.** In an unassisted withdrawal, the battalion establishes its own security and disengages itself from the enemy. It reconnoiters and secures routes that it uses in its rearward movement while sustaining itself during the withdrawal.

c. **Withdrawal under Enemy Pressure.** In a withdrawal under enemy pressure, all units other than the rear guard or DLIC withdraw simultaneously when available routes allow. The following factors influence the decision to withdraw simultaneously:

- Subsequent missions.
- Availability of transportation assets and routes.
- Disposition of friendly and enemy forces.
- Level and nature of enemy pressure.
- Degree of urgency associated with the withdrawal.

(1) *Transition.* The element that will be the DLIC or rear guard must transition to cover the battalion's AO. Simultaneously, the battalion must prepare its CSS assets and the remainder of the force to begin a rapid withdrawal to the rear. The battalion should seek to move on two routes to gain speed and shorten formations. Using more than two routes exceeds the ability of the battalion to maintain security. Often, only a single route will be available.

(2) *Breaking Contact.* The battalion commander has essentially 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. He bases this choice on the factors of METT-TC.

d. **Withdrawal without Enemy Pressure.** When conducting a withdrawal without enemy pressure, the commander can focus the plan on the best method to displace forces rapidly. He has the option of taking calculated risks that increase his force's displacement capabilities. He may order the main body to conduct a tactical road march instead of moving in tactical formations, or he may move on as many routes as are available with reduced security in order to gain speed.

5-27. WITHDRAWAL PREPARATION

The commander prepares the battalion for the withdrawal through inspections and rehearsals in the same fashion as discussed with other defensive operations. Inspections for this mission focus on subordinate unit preparations to ensure a clear understanding of the scheme of maneuver and his intent. During an assisted withdrawal, the commander ensures adequate coordination for battle handover and passage of lines. The focus of the rehearsal for the withdrawal is on actions to maintain security, disengagement from the enemy, and the movement of forces. When possible, key leaders or liaisons from the assisting force should attend the rehearsal. The commander ensures control measures, to

include fire support coordination measures, fully support the withdrawal. Leaders rehearse the plan against the full range of possible enemy actions. They rehearse contingencies for reverting to a delay, commitment of the reserve, and enemy interdiction of movement routes.

5-28. WITHDRAWAL EXECUTION

Execution of the battalion withdrawal essentially follows this pattern:
    a. Task-organizing and positioning of security and deception forces.
    b. Reconnaissance and surveillance of withdrawal routes and subsequent positions.
    c. Preparation of obstacles to support the DLIC and withdrawal.
    d. Preparing wounded soldiers and damaged equipment and nonessential supplies for movement.
    e. Moving nonessential CS and CSS units to the rear.
    f. Initiating movement, leading with forward security forces.
    g. DLIC breaks off contact and moves as a rear guard.

5-29. CONCEALING THE WITHDRAWAL

The first priority is to conceal the withdrawal from the enemy. As the battalion begins the initial movement of forces, it must take measures to deceive the enemy and to maintain OPSEC. The following actions assist in maintaining OPSEC:

- Maintain the defensive pattern of the whole force across the AO, simulated by the DLIC.
- Maintain communication and information security.
- Avoid establishing patterns of movement that may indicate friendly intentions.
- Establish security focused on destroying enemy reconnaissance forces.
- Use multiple withdrawal routes.
- Move during limited visibility and along covered and concealed routes.

5-30. DISENGAGEMENT IN A WITHDRAWAL

The security force remains in position and maintains a deception while the main body moves as rapidly as possible rearward to intermediate or final positions. After the main body withdraws a safe distance, the commander orders the security force to begin its rearward movement. Once the security force begins moving, it assumes the duties of a rear guard. The security element must balance security and deception with speed as it disengages. It maintains tactical movement and security techniques until it is clear that the enemy is not pursuing and contact has been broken; it then withdraws as rapidly as possible. The main body moves rapidly on multiple routes to designated positions. It may occupy a series of intermediate positions before completing the withdrawal. Usually CS and CSS units move first and precede combat units in the movement formation. The staff enforces the disciplined use of routes during the withdrawal. Despite confusion and enemy pressure, subordinate units must follow specified routes and movement times.

5-31. ACTIONS ON CONTACT IN A WITHDRAWAL

Security forces counter any enemy attempts to disrupt the withdrawal or pursue the battalion. 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. The main body delays, attacks, or defends as required by the situation. In this event, the withdrawal resumes at the earliest possible time. If the enemy blocks movement to the rear, friendly forces shift to alternate routes and bypass the interdicted area. Alternatively, they may attack through the enemy.

5-32. TERMINATING THE WITHDRAWAL

Once the battalion successfully disengages from the enemy, it normally has the following options:

- Rejoin the overall defense.
- Transition into a retirement.
- Continue moving away from the enemy and towards its next mission area.

The higher headquarters defines the next mission. Follow-on missions are normally planned as the withdrawal is being planned or executed.

5-33. RETIREMENT

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 battalion conducts a retirement as part of the SBCT to reposition for future operations.

  a. **Organization.** The SBCT normally organizes into security elements and a main body. A subordinate battalion may serve either as a security element or as a part of the main body. The battalion normally organizes itself with security, main body, and reserve elements, depending on the situation and where the battalion is in the movement scheme. The formation and number of columns employed depend on the number of available routes and the potential for enemy interference. The commander typically wants to move his major elements to the rear simultaneously.

  b. **Planning Considerations.** The commander and staff develop a movement plan based on the terrain, friendly situation, commander's guidance, and enemy situation. They develop the movement formation and order of movement to balance the need for security and speed. Security forces protect the main body from surprise, harassment, or attack by any pursuing enemy forces. Each march column normally maintains an advance guard, rear guard, and flank security, depending on the situation with adjacent friendly forces and the likelihood of enemy interference. The main body may organize into an approach march or tactical road march if speed is most important and the need for security is low.

  c. **Preparation.** During preparations, the SBCT and battalion units conduct rehearsals and prepare for the movement. Units maintain OPSEC and security operations and dispatch advance parties and quartering parties as required.

  d. **Execution.** During a retirement, the SBCT and its battalions normally move to assembly areas to prepare for future operations. Battalions move in accordance with established movement times and routes. Strict adherence to the movement plan is essential to avoid congestion. The staff closely supervises the execution of the movement plan. CSS and CS units usually move to the rear first.

Section III. DEFENSIVE PLANNING CONSIDERATIONS

Planning a defensive operation is a complex effort requiring detailed planning and extensive coordination. This section contains planning considerations applicable for defensive operations.

5-34. DEFENSIVE PLANNING STEPS

In the defense, synchronizing the effects of the battalion combat and supporting systems allows a commander to apply overwhelming combat power against selected advancing enemy forces to unhinge the enemy commander's plan and destroy his combined-arms team. All defensive operations are a mix of static and dynamic actions. As an operation evolves, the commander knows he will probably have to shift his decisive and shaping operations to press the fight and keep the enemy off balance.

a. **Commander's Vision.** The first step is the expression of the commander's visualization of anticipated enemy actions integrated with the staff's IPB. The battalion IPB and the SBCT IPB should not differ significantly, thus giving the battalion commander and staff a clear understanding of how the SBCT commander envisions the enemy will fight and his plan for the operation. From that, the battalion commander and staff refine the IPB to focus on the details of the operation in the battalion AO. The SBCT commander normally defines where and how the SBCT will defeat or destroy the enemy. The battalion commander defines how he envisions the battalion will execute its portion of the SBCT fight.

b. **How and Where to Defeat the Enemy.** 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 SBCT commander may define a defeat mechanism that includes the use of single or multiple counterattacks to achieve success. The battalion commander and staff analyze their unit's role in the SBCT fight and determine how to achieve success. In an area defense, the battalion 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 an SBCT counterattack. In a delay operation, the battalion achieves success by combining maneuver, fires, and obstacles, and by avoiding decisive engagement until conditions are right to achieve the desired effect of gaining time or shaping the battlefield for a higher echelon counterattack.

c. **Forces and Assets Available.** The commander and staff analyze the forces and assets available, paying particular attention to the obstacle assets and fire support allocated by the SBCT. 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 engineers can emplace in the time available. Fire support analysis should include the number of targets that can be engaged with an expected result at what point in the battle.

d. **Effects.** With a definitive 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 both the SBCT's and the battalion's defeat mechanism. They define the task(s) and purpose for subordinate units and establish priorities for CS and CSS. 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 stated EFSTs and

intended obstacle effects. The desired end state is a plan which 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.

5-35. INTELLIGENCE PREPARATION OF THE BATTLEFIELD

As with all tactical planning, IPB is a critical part of defensive planning. It helps the commander to 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 courses of action. The essential areas of focus are--

- Analyze terrain.
- Determine enemy force size and likely COAs with associated decision points.
- Determine enemy vulnerabilities.

a. **Terrain Analysis.** The staff determines ground and air mobility corridors and avenues of approach to determine where the enemy can maneuver to reach his likely objectives and to identify limitations on friendly maneuver and positioning. Identification of terrain, such as chokepoints, that create potential enemy vulnerabilities and opportunities for friendly attack is critical. The SBCT engineer can assist the battalion staff's terrain analysis by providing terrain analysis products utilizing the digital topographic support system, which can help in identifying critical terrain as well as assist in positioning weapons systems and intelligence assets. Once they receive their area of operation for reconnaissance or preparation, subordinate units can conduct their own terrain analysis using physical reconnaissance and the line-of-sight analysis function in FBCB2. The terrain analysis must achieve a level of fidelity that allows for effective positioning of direct fire weapons systems and observers. It must identify intervisibility lines, fields of fire, and dead spaces and integrate the effects of weather. The SBCT staff can assist the battalion staff by supplying weather impact on trafficability, visibility, and systems operations through data generated by the integrated meteorological system (IMETS) at division. The result of the terrain analysis should be a modified combined obstacle overlay and identification of defensible areas. The staff should transmit results of the analysis digitally to subordinate units. When it has analyzed the battalion's assigned AO, the staff should expand its analysis to adjacent AOs and areas forward and to the rear of the assigned AO in which the battalion may operate as the operation progresses.

b. **Determine Enemy Force Size, Likely COAs, and Decision Points.** The staff determines the size of enemy force that each avenue of approach and mobility corridor can support. The expected size of the enemy force drives the determination of friendly force allocation, fires, and obstacle effort. It also assists the commander and staff in understanding how the enemy will utilize his forces and the terrain. The enemy COAs developed must be feasible and reflect the enemy's flexibility and true potential. All COAs should define the following:

- Likely enemy objectives.
- Enemy composition, disposition, and strength.
- Schemes of maneuver, to include routes, formations, locations and times the enemy may change formations, possible maneuver options available to the enemy, and key decision points.

- Time and distance factors for the enemy's maneuver through the area of operation.
- Likely employment of all enemy combat multipliers including artillery, air defense, obstacles, chemical strikes, dynamic obstacles, and attack aircraft.
- Likely use of all enemy reconnaissance assets and organizations to include likely reconnaissance objectives, reconnaissance avenues of approach, times to expect enemy reconnaissance, and likely locations of enemy observers and observation posts.
- Identification and likely locations of enemy high-value targets, such as artillery formations, reserves, and C2 nodes.
- Likely locations, compositions, strength, employment options, and time and distance factors for enemy reserves and follow-on forces.
- Locations of enemy decision points that determine selection of a specific course of action.
- Likely breach sites and points of penetration.

The staff should graphically portray the results of this IPB step on a situation template (SITEMP) with a COA statement and appropriate notes. The S2 and staff use this SITEMP to develop the initial reconnaissance and surveillance plan that initiates reconnaissance and surveillance operations. As planning progresses, they must update the reconnaissance and surveillance plan to include fire support operations, resulting in a complete reconnaissance and surveillance plan. The staff should distribute all products digitally to the entire staff and subordinate units to support parallel planning.

c. **Determine Enemy Vulnerabilities.** The staff identifies potential enemy vulnerabilities based on the enemy's tactics, friendly and enemy capabilities, the terrain, and the weather. Seeking to engage the enemy where the terrain puts him at a disadvantage, the staff identifies--

- Restricted terrain that may slow the enemy's attack, cause a separation of forces, create difficulties in command and control, or force the enemy to conduct defile drills (for example, narrow valleys, passes, or urban areas).
- Chokepoints or natural obstacles that may cause a loss of momentum, a potential fragmenting of forces, or a vulnerable concentration of forces (for example, rivers and canals).
- Terrain that canalizes enemy formations into areas that provide defending forces with good fields of fire, observation, and flanking fires.
- Areas dominated by key or defensible terrain that allows massing of fires.

To be successful at providing IPB products to support the commander and subordinate units, the entire staff must participate. They must be knowledgeable in friendly and enemy capabilities and terrain analysis and be able to execute the process rapidly. The results must be detailed, legible, and disseminated quickly to support planning at all echelons.

5-36. COURSE OF ACTION DEVELOPMENT
The following are basic steps for developing a COA for defensive operations:
- Analyze relative combat power.
- Generate options.
- Array initial forces.

- Develop the scheme of maneuver.
- Assign headquarters.
- Prepare COA statements and sketches.

Refer to Chapter 2 for a detailed discussion of the MDMP.

NOTE: This process is often abbreviated depending on the situation and the commander. Frequently, the commander may develop the course of action himself and have the staff focus on war gaming and synchronization.

a. **Analyze Relative Combat Power.** The commander and staff analyze friendly and enemy combat power to gain insight on capabilities, limitations, and weaknesses associated with both forces. They consider the elements of combat power (maneuver, firepower, protection, leadership, and information) along with the effects of combat multipliers (obscurants, chemical, intelligence and electronic warfare (IEW), and logistical capabilities). In the defense, they pay particular attention to the potential created by the terrain and the battalion's countermobility and survivability capabilities and to the enemy's actual ability to employ forces in each defended area. They analyze each avenue of approach. This analysis, coupled with higher commander's intent and the terrain, often determines whether the battalion defends forward in the AO or integrates delay actions into the defensive scheme in order to shape the battlefield and maintain adequate force ratios.

b. **Generate Options.** Defensive COAs must account for all possible enemy actions and must provide for the full extent of the battalion fight. Since the defender cedes the initiative at first and generally fights at a numerical disadvantage, full utilization of available combat power is normally a major concern. The following guidelines can help generate defensive options.

(1) Ensure the entire staff understands the mission and the results of the mission analysis process.

(2) Determine the desired end state of the mission in terms of the higher commander's intent and concept and the battalion's relation to the enemy, terrain, and time. Depending on the purpose of the defense, the end state may focus on retention of terrain or defeat of an enemy force.

(3) Study the terrain and feasible enemy COAs to determine where and how to defeat the enemy attack. This should result in--

- Determination of the MBA, security area, and rear area.
- Determination of the defeat mechanism (main effort), including task(s) and purpose.
- Identification of key effects required to shape the enemy's attack and create the conditions for the main effort's success. This defines supporting efforts, fires, and obstacles and must include the task(s) and purpose of each of these.
- Determination of key terrain the battalion must retain or control.
- Determination of where to engage enemy formations.
- Areas of risk.

c. **Array Initial Forces.** The commander and staff array forces within the MBA, security area, and rear area, starting with the main effort and followed by each supporting effort. Guidelines for this process include the following:

- Based on the probable size of the enemy force on each avenue of approach, identify the required combat forces, the EFSTs, and the obstacle effects required for each effort (main or supporting) to accomplish its task.
- Allocate the number and type forces required by each effort to accomplish its task and purpose. Weight additional combat power not needed to the main effort or keep it in reserve.
- Balance the required combat forces, EFSTs, and obstacle effects with available capabilities based on the commander's guidance and the most likely enemy COA.
- Array company-size maneuver units against battalion-size avenues of approach. Consider allocation of maneuver platoons.
- Array CS and CSS assets based on requirements, not sizes of units.
- Allocate the types of forces to each effort that make best use of the forces' capabilities and available weapons systems.
- Weight the main effort with sufficient combat power to ensure it can achieve its task and purpose.
- Allocate minimum combat power required for supporting efforts to achieve their assigned tasks.
- Array and allocate reconnaissance and surveillance forces and security forces.

NOTE: The battalion can overcome shortfalls in combat power by modifying the COA, changing task organization, increasing use of combat multipliers, or using economy of force elsewhere.

d. **Develop the Scheme of Maneuver.** The commander and staff develop the scheme of maneuver by refining the initial array of forces to coordinate the operation and show the relationship of friendly forces to each other, the enemy, and the terrain. They simultaneously develop and refine other supporting plans such as fire support and engineer support. It is critical that the plan developed be sufficiently flexible to succeed against all feasible enemy COAs and be capable of defeating major enemy efforts along unlikely avenues of approach or against supporting efforts. The scheme of maneuver must also address how to exploit defensive success. A fully developed defensive scheme of maneuver--

- Identifies where and when the commander will accept risk.
- Identifies critical events and, if required, phases of the operation.
- Designates the main effort with associated task(s) and purpose(s), by phase.
- Designates supporting efforts with associated task(s) and purpose(s), defining how they support the main effort.
- Designates the reserve and its planning priorities.
- Defines reconnaissance and surveillance operations.
- Defines security operations.
- Provides for withdrawal of the security force.
- Outlines the movement and positioning of forces (including effects of the SBCT reserve's movement through or commitment in the battalion AO).
- Describes the concept of fires.

- Integrates obstacle effects with maneuver and fires.
- Establishes the priority of support for CS and CSS units.
- Identifies the maneuver options that may develop during execution.
- Identifies means and mechanisms for exploiting defensive success.

e. **Assign Headquarters.** With the scheme of maneuver developed, the commander and staff determine the task organization and C2 arrangement of subordinate headquarters. The task organization must account for the entire battlefield framework and include arrangements for special operations such as passage of lines. The assignment of headquarters must pay particular attention to the impact on the C2 INFOSYS and the requirements to move unit affiliations within the communications architecture.

f. **Prepare COA Statements and Sketches.** The staff develops a COA sketch and explanatory statement for each completed COA. All COAs must meet the criteria of suitability, feasibility, acceptability, distinguishability, and completeness as defined in FM 101-5. The staff should simultaneously develop supporting plans (fire support, engineer, air defense).

Section IV. SEQUENCE OF THE DEFENSE

The battalion may assume a defensive mission following an attack of its own or in anticipation of an enemy attack. The following general sequence of operations applies to planning and executing all defensive operations.

5-37. OCCUPATION AND ESTABLISHMENT OF SECURITY

Normally, the SBCT has established some form of security before the battalion moves into the area. However, the battalion must still provide for its own security, especially on expanded or complex terrain. If transitioning from an offensive operation, the SBCT and battalions establish the security area well beyond where the main battle area is desired 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 objective, the SBCT and its battalions may have to hold their positions initially as they transition and then withdraw units to the defensive main battle area, establishing a security force in the process.

a. **Movement into Unsecured Area of Operations.** If the battalion is moving into an unsecured AO, it may lead with the reconnaissance platoon, possibly reinforced with MGSs or infantry elements and mortars. Depending on the situation, the battalion may send a company to secure the area. The mission of the security force is to clear the area, check for contaminated areas and obstacles, and establish security for the battalion main body. After clearing the battalion's rear area and the area where the companies 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 battalion defenses.
- Provide early warning of the enemy's approach.

b. **Positioning of Forces.** The positioning of the battalion security elements must be integrated into the security operations of the SBCT and adjacent battalions. In contiguous or linear defenses, the SBCT commander normally organizes and defines the security area forward of the FEBA, assigning the battalions AOs of the battlefield to prevent gaps

in the SBCT security. The key is to integrate operations at the SBCT level and again at the battalion level, using all available resources to execute security operations.

c. **Leaders' Reconnaissance.** 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 be reconnoitered, and time allocated for the reconnaissance. When available, the commander may use aviation assets to conduct the leaders' reconnaissance.

5-38. PREPARATION AND CONTINUED SECURITY OPERATIONS

Preparation of the defense includes planning and plan refinement, positioning of forces, constructing obstacles, 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 reconnaissance 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 companies.

a. **Security.** Security is a consideration throughout the area of operations. The battalion must array security forces in depth to provide protection and to reduce the potential for enemy infiltration. It must also secure the main battle area to prevent enemy reconnaissance, reduction of obstacles, targeting of friendly positions, and other disruptive actions. Companies must secure obstacles, battle positions, and hide positions. Elements in the battalion rear area must provide their own security, augmented by vehicles that are being repaired. With extended lines of communication, the battalion may also secure logistical elements moving forward from the BSA to support the battalion.

b. **Dispersion.** Forces should be widely dispersed and hidden to reduce vulnerability and to aid in OPSEC.

c. **Integration.** Integrate reconnaissance and ground maneuver units in the security forces. Utilize reconnaissance forces primarily to locate enemy elements and attack them with indirect fires but not to engage in direct fire attack except in self-defense. Clearly establish the C2 headquarters and communication architecture for the security force. (This can be one of the most challenging missions in terms of tactical internet management.)

5-39. SECURITY AREA ENGAGEMENT

The battalion normally does not have a significant security area engagement, as this is largely the domain of the SBCT for shaping the battlefield and setting favorable conditions for the close fight. The battalion may execute some engagement tasks in the security area to support its own or higher's defensive scheme.

a. **Execution of Planned Indirect Fires.** The battalion's planned indirect fires usually consist of security force elements or a FIST team executing 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 SBCT usually controls artillery assets throughout most of the engagement.

b. **Execution of Situational Obstacles.** The battalion may be tasked by higher or have integrated into its own defensive scheme the use of rapidly emplaced situational obstacles to execute in the security area. These obstacles serve to force enemy deployment, slowing the enemy to allow for more effective engagement with indirect fires while forcing expenditure of enemy engineer assets. These obstacles are usually planned and triggered relative to specific enemy attack options and are related to accomplishing a specific EFST. Maneuver forces may be employed forward to cover them with direct fires then withdraw to positions in the main battle area.

c. **Execution of Delay Operations through the Security Area and into the MBA.** The battalion may support its own or higher's scheme of maneuver by fighting a delay through the depth of the security area and into the main battle area. The purpose may be to take advantage of restrictive avenues of approach, to set the conditions for a counterattack, or to avoid a decisive engagement until favorable conditions have been set.

d. **Battle Handover.** The battalion may assume control of the FEBA fight from the security force as it withdraws. Transferring responsibility from the security force to the battalion on the FEBA requires firm, clear arrangements for assuming command of the action, for coordinating direct and indirect fires, for the security force's rearward passage of lines, for closing lanes in obstacles, and for detailed movement planning that clears the security force out of the battalion AO with minimal interference with the defense.

e. **Transition.** As security area engagements transition into the main battle area, security area forces withdraw to the initial MBA or reserve positions. Some elements may maneuver to the flanks to maintain surveillance on enemy avenues of approach, providing early warning and execution of fires against following enemy forces.

5-40. MAIN BATTLE AREA ENGAGEMENT

The battalion seeks to defeat the enemy's attack forward of or within the MBA. If the battalion can bring sufficient firepower to shape the enemy in the security zone fight, a main battle area engagement may not occur. In this event, the SBCT can rapidly transition and move its battalions into a strong counterattack. However, the SBCT and the battalions normally defend over a large area, and enemy strength often forces a main battle area engagement. An MBA engagement is a combined-arms fight integrating both direct fire engagements and indirect fires, reinforced with obstacles and organic mortars. The SBCT continues to focus artillery, CAS, and attack aviation in an effort to attack the enemy continuously throughout the depth of the battlefield; therefore, fire support to the battalions may be limited to critical points and times in the MBA fight. Combining all available fires with maneuver, obstacles, and reserve elements, the battalion commander seeks to destroy the enemy in designated engagement areas or force his transition to a retrograde or hasty defense. The SBCT normally specifies control measures to coordinate and focus the defensive operation. Defensive control measures used to provide the flexibility to respond to changes in the situation and allow the commander to rapidly concentrate combat power at the decisive point include the security area, battle handover line (BHL), and the main battle area. The commander can use battle positions and additional direct fire control measures and fire support coordination measures to further synchronize the employment of his combat power.

5-41. FOLLOW-ON MISSIONS

Following a successful defense, there may be a period of confusion that the defender can exploit. Given the information dominance capabilities of the battalion and the SBCT, counterattacks can be executed quickly, based on branches and sequels to the plan, before the enemy can secure his gains or organize a defense. METT-TC and the higher commander's concept of operations dictate the battalion's follow-on mission. If the situation prevents offensive action, the battalion continues to defend. As in the initial establishment of the defense, gaining security zone space is critical. A local counterattack can provide space for a security zone 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 (DPICM) or bomblets have been used. If the battalion or SBCT cannot counterattack to gain adequate security space, then the SBCT may have to direct one battalion 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 battalion must quickly reorganize. Key reorganization tasks include--

- Establishing and maintaining security.
- Reestablishing C2 and the C2 INFOSYS.
- Reorganizing platoons and companies.
- Treating and evacuating casualties.
- Conducting emergency resupply.
- Recovering damaged equipment and initiating repair operations.
- Processing EPWs.
- Refining and updating the COP.

5-42. REAR AREA

The battalion rear area is the area between the battalion rear boundary and the defending companies. This area is normally kept as shallow as possible to minimize terrain management and security problems for the battalion while allowing enough space for primary and alternate positions for the SBCT support area. The battalion must be prepared to defend or respond to threats in its rear area, and it may be tasked to respond to threats in the SBCT's rear (sustainment) area. The staff IPB must identify potential rear area threats and approaches, including air approaches and landing zones. Security and surveillance plans must then be developed to counter these threats. Threat levels categorize rear area threats.

   a. **Level I.** A Level I threat is a small enemy force that can be defeated by CS and CSS units or the perimeter defenses of a logistics base or base cluster. Typically, a Level I threat consists of a squad-size or smaller unit or group of enemy soldiers, agents, or terrorists.

   b. **Level II.** A Level II threat is an enemy activity that can be defeated by a base cluster augmented by a response force. The response force may be an MP platoon or a combat element. A Level II threat consists of an enemy special operations team, mounted or dismounted reconnaissance unit, or reduced strength small combat unit.

   c. **Level III.** A Level III threat exceeds the defensive capability of a base cluster and local reserve or response force. It normally consists of a mobile enemy force and usually

requires a company-size or larger force to counter. At SBCT and higher echelons, a tactical combat force (TCF) is designated to counter Level III threats. Companies or the entire battalion could be assigned a TCF mission as a primary or on-order mission for a higher headquarters. Battalions do not designate a TCF in their operations.

Section V. TECHNIQUES OF DEFENSE

The battalion normally defends using three basic techniques of defense: defend an area of operation, defend a battle position, and defend a strongpoint. The SBCT normally assigns the battalion an AO to defend.

5-43. DEFENSE OF AN AREA OF OPERATION

A defense in an AO provides the greatest degree of freedom of maneuver and fire planning within a specific area. The SBCT most often uses this method of control when it has an adequate amount of depth and width to the battlefield and does not desire decisive engagement early in the MBA fight. A battalion commander may assign his companies AOs to defend. For a defense to be cohesive, the companies and battalions cannot maneuver with complete freedom. Phase lines, engagement areas, battle positions, and obstacle belts help coordinate forces and achieve synchronized action. During defensive preparations, the commander and key staff officers use backbriefs, inspections, and rehearsals to ensure that the defensive operation is coordinated and that unacceptable or unintended gaps do not develop. Use of AOs allows flexibility and prevents the enemy from concentrating overwhelming firepower on the bulk of the defending force. Forces defending against an enemy with superior mobility and firepower must use the depth of their positions to defeat the enemy. The depth of the defense must come from the initial positioning of units throughout the AO--not from maneuvering. A properly positioned and viable reserve enhances depth (Figure 5-8).
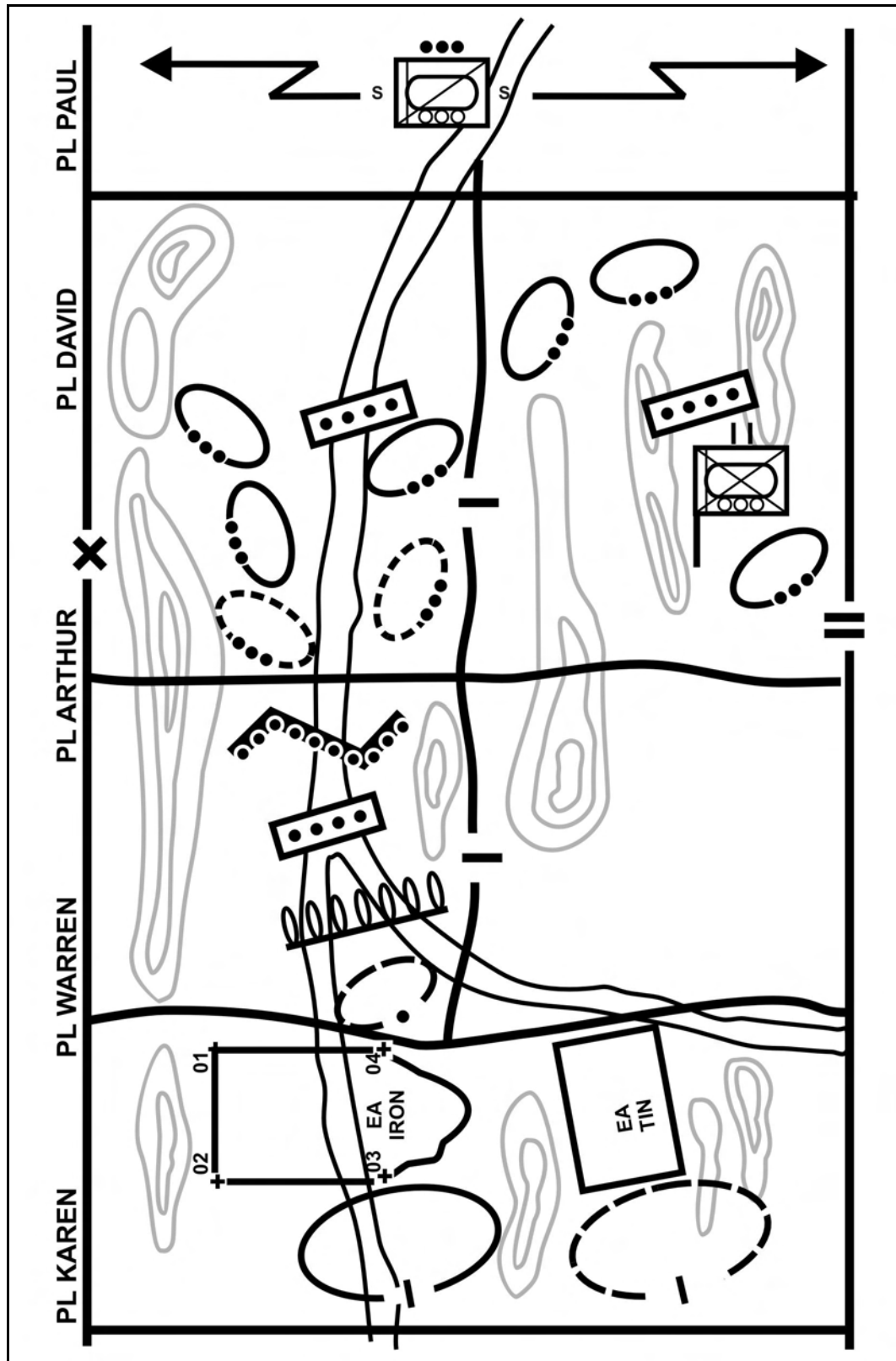
Figure 5-8. Defense of an AO.

a. **Positions.** A battalion defending against a mounted enemy uses a series of mutually supporting antiarmor positions. These should be located on armor-restricted terrain, protected by infantry, and strengthened by obstacles.

b. **Security.** The AO defense is more effective against armor but more vulnerable to infantry attack or combined arms action that can be directed against one position at a time. Position preparation must emphasize all-round security and mutual support.

c. **Deployment in Depth.** Forces deployed in depth must confront the enemy with effective fires from multiple locations as he tries to maneuver. The AO is organized around dispersed, small units that attack the enemy throughout the depth of his formations. The focus of this technique is the enemy force. Mines and other obstacles and patrols can close gaps that fire cannot cover effectively due to terrain masking or heavily wooded areas. The commander can position infantry along mounted avenues of approach within restricted terrain, thereby maximizing its capabilities.

d. **Engagement Options.** The commander has two engagement options when defending an AO. He chooses the appropriate one based mainly on the restrictions of the terrain and his expectation of achieving surprise. His first option is to begin engaging at maximum optimum range, based on the terrain and available weapons systems. His second option is to allow the enemy to close to within direct fire range of the infantry squads and machine guns. The defender then engages the enemy with violent hasty and deliberate counterattacks designed to destroy the enemy from any direction. In restricted terrain, this option denies a more mobile enemy force any firepower or mobility advantage.

(1) *Beginning the Engagement at Long Range.* The defender initiates fires at long ranges with FA, tactical aircraft, and attack helicopters to begin to break up the continuity of the attack. As the enemy closes to within range of organic MGS and antiarmor weapons, these weapons further disrupt enemy synchronization and destroy key vehicles. When the enemy enters the engagement range of the battalion's organic weapons, antiarmor weapons engage him from multiple unexpected directions and destroy him.

(2) *Allowing the Enemy into the Depth of the Position.* This technique is offensively oriented. It allows for planned penetrations, ambushes, and counterattacks throughout the enemy formation. A forward array of forces cannot defend armor approaches. Such an array can be overrun or penetrated rapidly while under massive artillery, smoke, and direct fire suppression. To avoid penetration, the battalion must array forces in depth. Concentrating the battalion on narrow fronts is risky.

e. **Planning.** The commander considers the following factors when facing a mostly mechanized or armored enemy.

(1) *Mounted Avenues of Approach.* The commander or S3 determines enemy mounted avenues of approach and the size force that can move on each. In addition, the commander or S3 estimate the maximum number of vehicles the enemy can deploy at one time on given avenues of approach and the length of time this target array would be exposed.

(2) *Engagement Areas.* Engagement areas determine where the battalion can kill vehicles and where it can position antiarmor weapons to kill them. The commander and staff identify potential positions throughout the AO. If all positions are used, the commander disperses antiarmor systems. By doing this, he reduces his vulnerability to total suppression but increases the vulnerability of his forces by having many small units

that can be defeated in detail or bypassed. Dispersion also increases his command, control, and logistical concerns. The commander can go to the other extreme and place his forces in a few positions, which lessens command and control problems and enhances the security of his forces. However, this extreme makes his antiarmor weapons more vulnerable to suppression and mounted bypass. The prudent commander balances these choices to allow maximum freedom of decentralized action for subordinates.

(3) *Dispersion.* Disperse antiarmor weapons so infantrymen can protect these weapons. The infantry prevents dismounted infiltration, provides security for antiarmor weapons (mainly during reduced visibility), and destroys armor at short ranges.

(4) *Massing of Antiarmor Fires.* Mass antiarmor fires by focusing, distributing, and shifting antiarmor fire through the use of terrain and or threat-based fire control measures. Attached antiarmor assets can be attached to or in DS of a company.

(5) *Obstacle Planning and Integration.* Plan obstacles to disrupt, fix, turn, or block the enemy and protect positions. Encountering these obstacles increases enemy exposure time and enhances the effect of direct and indirect fires.

(6) *Integrated Fire Support.* Planned CAS sorties can provide rapid and concentrated aerial-delivered firepower in the first, crucial engagements of the battle. Mortars and artillery increase the effects of antiarmor weapons by suppressing enemy overwatch elements, forcing enemy armor to button up. Attack helicopters rapidly mass antiarmor and antipersonnel weapons and provide security on flanks and other unoccupied areas.

5-44. DEFENSE FROM A BATTLE POSITION
A battle position is a general location and orientation of forces on the ground from which units defend. Battalion- to platoon-size units can use BPs (Figure 5-9, page 5-50).
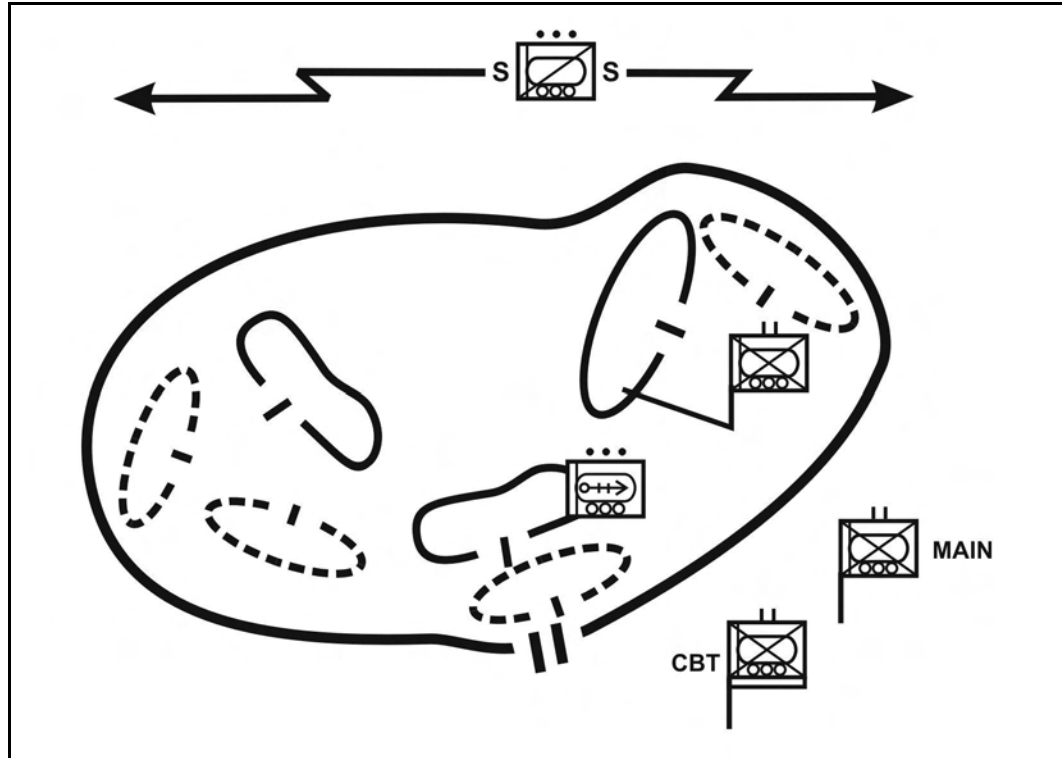
Figure 5-9. Disposition of forces in and about a BP.

a. **Use of Battle Positions.** Use of battle positions reduces the instructions needed to move a force. BPs are often used as graphic control measures for a FRAGO and are identified by number, letter, name, or a combination of these.

b. **Three Levels of Preparation for a Battle Position.** The three levels of preparation for a BP are occupy, prepare, and reconnoiter. The use of on-order BPs with the associated tasks "prepare" or "reconnoiter" adds flexibility and depth to the defensive plan.

(1) *Occupy.* This is complete preparation of the position from which the company will initially defend. The position is fully reconnoitered, prepared, and occupied before the "defend no later than (NLT)" time specified in the battalion OPORD. The company must rehearse the occupation, and the commander must establish a trigger for occupation of the position.

(2) *Prepare.* The unit fully reconnoiters the position and the corresponding engagement area, marking vehicle positions in the BP and fire control measures in the engagement area. From the BP, the unit must accomplish all actions to enable it to execute the mission immediately on occupation. Planning, coordination, and rehearsals are required for the unit to displace to the BP and accomplish the mission from it. Within time constraints, the unit digs in survivability positions, constructs fighting positions, designates target reference points (TRPs), develops direct and indirect fire plans, emplaces obstacles, clears fields of fire, and prestocks ammunition. Prepare missions are normally critical to the defense. A unit assigned such a mission must maintain security on the position and on the routes to it.

(3) *Reconnoiter.* The unit fully reconnoiters the engagement area and BP, planning tentative unit positions in the BP and establishing limited fire control measures in the

engagement area. The unit must coordinate and plan for defense from this position. Leaders reconnoiter, select, and mark positions, routes, and locations for security elements. They coordinate movement and other actions, such as preparing obstacles and occupation plans, with other elements of the battalion.

c. **Maneuver.** The commander can move his elements freely within the assigned BP. To comply with the commander's intent, units can maneuver outside the BP to adjust fires or to seize opportunities for offensive action. Battalion security, CS, and CSS assets are often positioned outside the BP with approval from the headquarters assigning the BP.

d. **Space Allocation.** The commander allocates space to subordinate elements within the BP area based on the space available and the relative danger of nuclear and chemical attack. The battalion commander thinks two levels down or in terms of platoon BPs when he selects a BP for subordinate companies. He must allow enough space on each BP for dispersed primary, successive, and alternate positions for key weapons. The battalion commander can vary the number of maneuver elements in the battalion BP by allocating larger company BPs. Battle positions can also reflect positions in depth. They may take a shape other than the standard oblong shape, which suggests a linear defense within the BP. Large positions also increase dispersion in a nuclear and chemical environment. The commander can combine company AO and BPs in the battalion AO to suit the tactical situation.

e. **Types of Battle Positions.** There are five types of battle positions: primary, alternate, supplementary, subsequent, and strongpoint.

(1) *Primary Positions.* Primary positions cover the enemy's most likely avenue of approach into the area. A primary position is the best position from which to accomplish the assigned mission.

(2) *Alternate Positions.* Alternate positions are those assigned for use when the primary position becomes untenable or unsuitable for carrying out the assigned task. These positions allow the defender to carry out his original task, such as covering an avenue of approach or engagement area. Alternate positions increase the defender's survivability by allowing engagement of the enemy from multiple positions and movement to other positions in case of suppressive or obscuring fires.

(3) *Supplementary Positions.* Supplementary positions are designated to cover avenues of approach that are not expected to be the enemy's primary avenue.

(4) *Subsequent Positions.* Subsequent positions are those to which the unit expects to move during the course of the battle. The defending unit may have a series of subsequent positions (particularly in delay operations), each with associated primary, alternate, and supplementary positions.

(5) *Strongpoints.* Strongpoints are heavily fortified battle positions tied into a natural or reinforcing obstacle to create an anchor for defenses or to deny the enemy key or decisive terrain. Strongpoints require extensive time, engineering support, and Class IV resources to construct. The battalion may be given strongpoint missions in rare instances, but the static nature of the operation and the resources required to conduct the strongpoint make it an unusual mission assignment.

5-45. REVERSE SLOPE DEFENSE
A reverse slope defense is organized to use a topographical crest to mask the defender from the attacker's observation and from supporting direct fire (Figure 5-10).

TERRAIN PROFILE
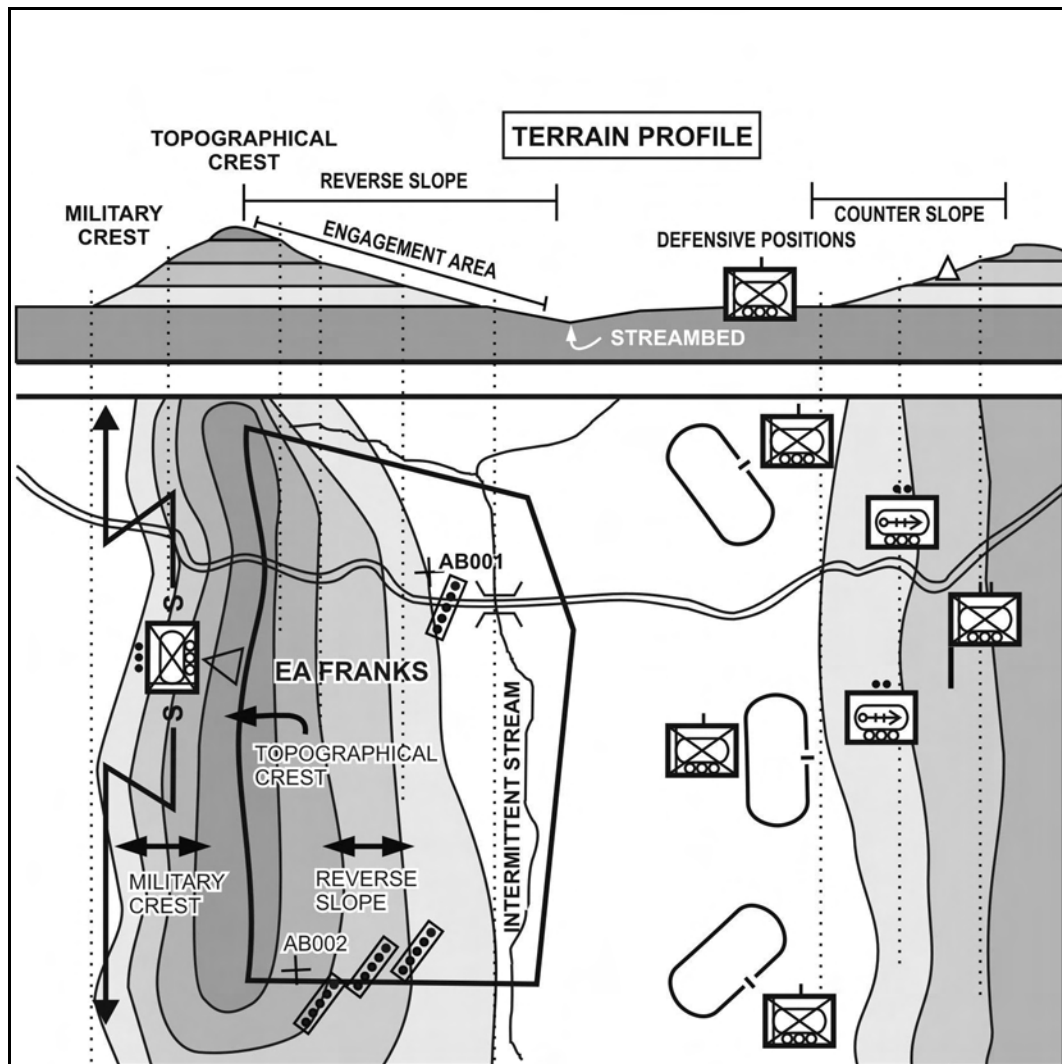
Figure 5-10. Organization of the reverse slope defense.

a. **Conditions.** The battalion commander may adopt a reverse slope position for elements of the battalion 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.
- The terrain on the reverse slope affords better fields of fire than the forward slope.
- The defender must avoid creating a dangerous salient.

- The commander is forced to assume a hasty defense while in contact with or in proximity to the enemy.
- Surprising and deceiving the enemy as to the true location of the battalion defensive positions is essential.

b. **Advantages.** The following are some advantages of a reverse slope defense:

- Enemy ground observation of the battle area is masked, even from surveillance devices and radar.
- Enemy direct fire weapons cannot effectively fire on the position without coming within range of the defender's weapons.
- The enemy must try to breach obstacles on the reverse slope within direct fire range of all the defender's weapons. (The attacker cannot locate these obstacles until he encounters them, thus reducing his reaction time and maneuver space.)
- The enemy is deceived as to the strength and location of defensive positions.
- Enemy indirect fire is less effective since he cannot see the defender.
- The defender gains tactical surprise.
- The lack of enemy ground observation allows more freedom of movement within the battle area.
- MGSs, ICVs, Javelins, and TOW missile systems, if positioned properly, can mass fires on the reverse military crest; infantry small-arms weapons can contribute their close fires to the battle.
- The unit can dig in more quickly even when the enemy is approaching because the slope of the hill covers and conceals the unit from the direct fire and observation of approaching enemy ground forces. Defenders can concentrate on position preparation.
- The terrain protects the unit from the blast and thermal effects of enemy or friendly force nuclear weapons.

c. **Disadvantages.** The following are some disadvantages of a reverse slope:

- Observation of the enemy may be limited, and the defender may be unable to cover obstacles to the front by direct fire.
- The topographical crest may limit the range of important direct-fire weapons. These weapons may have to locate separately from the dismounted infantry elements to exploit their range.
- The enemy holds the high ground in an attack. His attack is downhill; the counterattack is uphill. This may provide a psychological advantage to the enemy.
- Because the reverse military crest must be controlled, the effectiveness of the reverse slope defense is reduced during limited visibility.

d. **Organization of the Defensive Position.** The battalion commander organizes the defensive position IAW procedures that apply to all defensive techniques.

(1) *Forward Edge of the Position.* 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 he reaches friendly positions.

(2) *Flanking Fires.* A reverse slope position is most effective when units on adjacent terrain can place flanking fires on the forward slope.

(3) *Security Force.* The units should establish a security force to the front to stop or delay the enemy, to disorganize his attack, and to deceive him as to the location of the defensive position. When this security element withdraws, the unit must maintain observation, indirect fire, and security to the front.

(4) *Observation Posts.* The unit establishes observation posts 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 reserve 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.

5-46. DEFENSE OF A STRONGPOINT

The mission to create and defend a strongpoint implies retention of terrain to stop or redirect enemy formations. Battalion strongpoints can be established in isolation when tied to restricted terrain on their flanks or on mounted avenues of approach tied to unit defensive positions on the strongpoint flanks. Strongpoints may be on the FEBA or in depth in the MBA (Figure 5-11). A bypassed strongpoint exposes enemy flanks to attacks from friendly forces inside and outside the strongpoint.
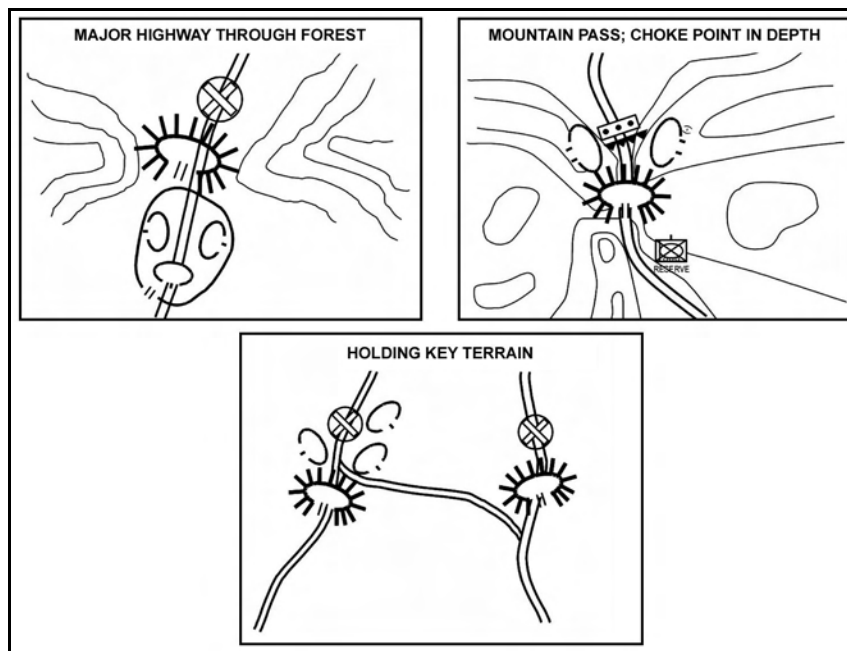
Figure 5-11. Examples of strongpoints.

a. **Planning a Strongpoint Defense.** The battalion pays a high cost in manpower, equipment, material, and time to construct a strongpoint. It takes several days of dedicated work to construct a strongpoint defense. The strongpoint defense sacrifices the inherent mobility advantage of the SBCT infantry battalion.

(1) *Enemy Assault.* When the enemy cannot easily bypass a strongpoint, the unit should expect and be ready to repel repeated enemy dismounted assaults. The strongpoint will probably receive intensive artillery attacks and must be prepared with overhead

cover. Multiple positions in the strongpoint provide defense in depth. Combat vehicles committed to the strongpoint defense use multiple firing positions while infantry squads use positions tied together with trenches. A battalion assigned a strongpoint mission--

- Plans movement to alternative positions in the strongpoint.
- Coordinates with forces outside the strongpoint, especially counterattack forces.
- Plans direct fires in detail and receives fire support priority.
- Establishes a small reserve to counter penetrations and, when appropriate, attacks outside the strongpoint.

(2) *Mutual Support.* All positions in a strongpoint are mutually supporting (Figure 5-12). Positioning must allow massing of the fires of two or more units in the primary EA and prevent the enemy from isolating positions and defeating them in detail. Sectors of fire help coordinate and mass fires between positions. Avenues of approach into and around the strongpoint that cannot be covered by forces in primary positions must be kept under surveillance and covered by supplementary positions prepared in as much detail as time permits and occupied on order.
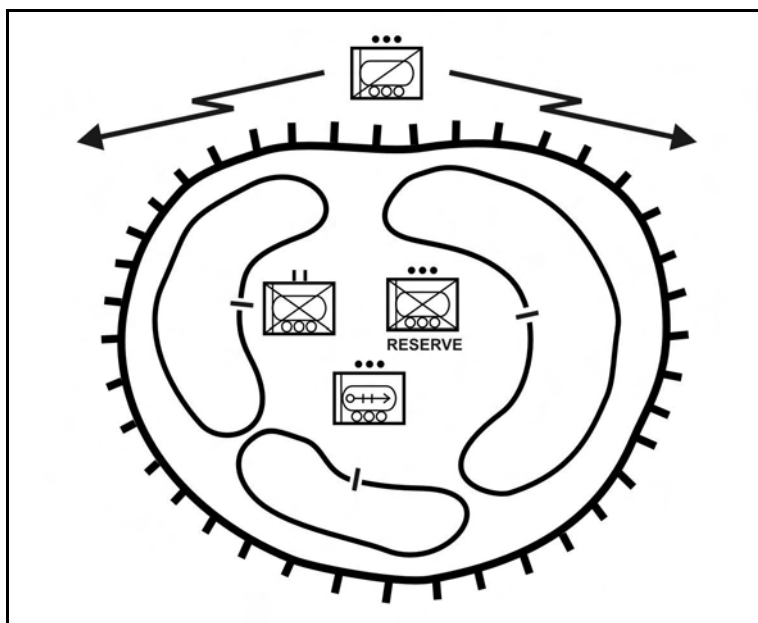
Figure 5-12. Battalion strongpoint, all forces within the strongpoint.

(3) *Forces Operating outside the Strongpoint.* In some situations, the battalion defends from a strongpoint with forces operating outside the strongpoint. Security forces may operate forward or perform economy of force missions. On their return to the strongpoint, security forces either screen a secondary avenue of approach or occupy a position in depth.

(4) *Dismounted Infantry Squads.* The commander may separate the MGSs and infantry squads, placing the infantry squads on restricted terrain with the MGSs deployed in positions in depth. If available, antiarmor forces occupy positions in depth to take advantage of their long-range fires. Alternate and supplementary positions are planned throughout the strongpoint and AO. Mortars operate in split sections on the reverse slope

or in a built-up area in the center of the strongpoint. Combat trains, with emergency resupply of Classes II and V, are placed in prepared defilade positions or buildings in the strongpoint. Supplies are pre-positioned near primary, alternate, and successive positions. The SBCT provides units to keep the main supply route open.

(5) *Security Force.* The commander may use a company as part of the security force to provide information through contact and spot reports. The company assigned the security mission screens the battalion AO or along the most dangerous avenue of approach. This company provides early warning to the battalion, destroys enemy reconnaissance elements, and helps shape the battlefield so the enemy is directed against the strongpoint.

b. **Intelligence Support for a Strongpoint.** The strongpoint represents the culmination of the SBCT S2's IPB and the commander's estimate of the situation. Based on a METT-TC analysis, the SBCT commander identifies the piece of ground that, if seized by the enemy, might cost the SBCT the battle. This piece of ground is the strongpoint.

(1) *Terrain Analysis.* The battalion S2 analyzes the terrain in a very detailed manner. Unlike other types of defense, the strongpoint must be defensible in 360 degrees. As a result, the terrain analysis must be conducted with the understanding that enemy offensive operations, from an infiltration to a major attack, could appear from any direction (multiple avenues of approach).

(2) *Reconnaissance and Surveillance Plan.* The reconnaissance and surveillance plan is essential to the strongpoint's effectiveness. Some reconnaissance assets may be able to operate outside the position to provide initial early warning. If the strongpoint becomes encircled, the unit must be able to anticipate the actions of the enemy and respond internally. OPs positioned outside the position must be sustainable should the strongpoint become surrounded. The unit should have a plan for bringing patrols or other reconnaissance and surveillance assets into the position despite enemy presence.

c. **Maneuver Concept.** The strongpoint defense is the most labor-intensive operation a battalion commander may execute. Despite its static nature, the construction must allow for maximum flexibility. The key to an effective and sustainable strongpoint defense is to have a solid obstacle and direct and indirect fire plan coupled with properly constructed fortifications. The commander must take a personal interest in the interface between combat, CS, and CSS elements.

(1) *Positions.* The selection of company combat, CS, and CSS positions is the first priority of the battalion commander. He must plan so his weapons systems can engage the enemy effectively along the major expected enemy avenue of approach. The S2's line-of-sight analysis, the IPB, and the obstacle plan determine these positions. The actual construction of the battalion EA and the direct fire control measures are identical to that discussed in earlier sections. The considerations for weapons systems employment, however, may be different, particularly with respect to the lack of depth in the strongpoint itself. In a strongpoint, it is much more difficult to achieve depth of fires than in AO defensive operations. Generally, infantry squads secure the outskirts alongside or slightly to the left or right front of the perimeter.

(2) *Defensive Position Selection.* Once the commander has determined the locations suitable for each type weapon system, he selects the company defensive positions. He must address several considerations before finalizing the defensive positions. First, how

much firepower is needed to cover the enemy avenue of approach? Second, how can the defensive positions be selected so they can be responsive to enemy attacks from other directions? Third, what task organization is best suited to the terrain and meets the security needs of the battalion?

(3) *Reserve.* In a strongpoint defense, it is important to maintain a reserve that can react to enemy activity against the position. The reserve may be mounted, dismounted, or both. The reserve may--

- Block an enemy penetration of the perimeter.
- Reinforce a position or section of the defense.
- Counterattack to restore a portion of the strongpoint.

d. **Strongpoint Fire Support.** Dominating terrain features, mounted and dismounted avenues of approach, and likely enemy avenues of approach hidden from direct observation should be targeted. In this way, the fire support plan will help keep the enemy at a distance from the strongpoint.

(1) If the enemy is able to reach the strongpoint in significant strength, the close-in fire support plan is essential to the integrity and survivability of the position. Fires must be planned on obstacles close to the position, even if they are danger close. Evacuation of the position may become necessary during the battle. If fires are planned on the position, the unit can destroy the enemy and reoccupy the positions for continued defense.

(2) If 360-degree indirect mortar support is required, the mortar tubes may be dismounted from the vehicles so they can respond easily to calls for fire in any direction. If the mortar tubes remain in the MCs, firing in some directions will be difficult without moving the vehicle. The vehicles should remain in proximity to the tubes, dug in, and serving as an ammunition storage facility. Figure 5-13, page 5-58, illustrates the overall battalion fire support plan.
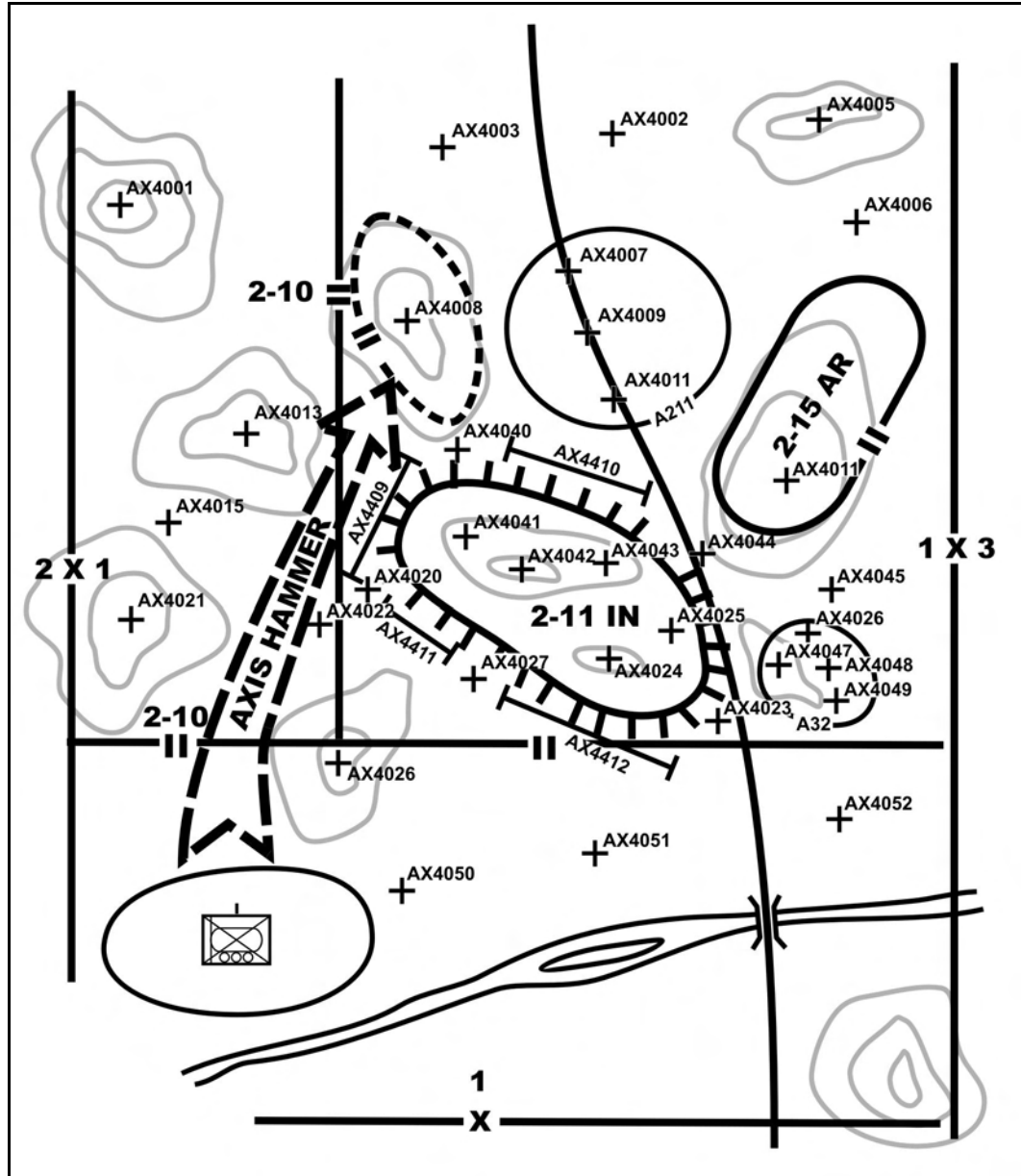
Figure 5-13. Strongpoint fire support plan.

e. **Strongpoint Engineer Support.** The supporting engineer element commander or platoon leader accompanies the maneuver commander on the reconnaissance of the strongpoint area. He plans indirect fires and scatterable mines to slow, disrupt, and canalize the advancing enemy and prepares the position to make it physically impassable to armored or mechanized forces and to enhance the killing power of antiarmor weapons with obstacles. The commander determines emplacement priority for fighting positions and obstacles and allocates the assets needed to accomplish the mission. Strongpoints are constructed from inside to outside. Regardless of the configuration of the strongpoint, the following are essential tasks to perform:

- Prepare obstacles to prevent their being overrun.
- Prepare hull down positions for ICVs.

- Emplace obstacles at optimum weapon range.
- Construct protected routes between positions.
- Plan and coordinate for scatterable mines.

f. **Air Defense Artillery Support for a Strongpoint.** The air defense commander identifies positions to facilitate engagements of enemy fixed- and rotary-wing aircraft. The air defense commander ensures the engineers site actual positions properly. Engineers know how to <u>construct</u> positions, but the "occupant" must ensure the position is properly <u>oriented</u>.

g. **Strongpoint Combat Service Support.** The battalion S4 helps plan for the following aspects of CSS in a strongpoint.

(1) *Cache.* The S4 examines the engineer's strongpoint construction plan and determines the best places to cache ammunition and supplies. The units refine the cache plan by positioning smaller caches adjacent to individual crew-served weapons. Once the unit caches have been identified or sited, the battalion S4 develops a resupply plan. Battalion caches must be dispersed throughout the strongpoint to prevent a single detonation.

(2) *Medical Support.* Medical personnel must be ready to evacuate wounded from the perimeter to the aid station. The aid station is dug in, with easy access to each unit. The aid station should have access to a water supply, generators, and a bunker, if possible. In an elongated strongpoint, the aid station may split to provide support from two locations.

(3) *Refuel Points.* Even though vehicles in the position are static, they still burn fuel during idling. The battalion must develop a refueling plan.

(4) *Combat Trains CP.* The CTCP is dug in separately from the battalion CP. It serves as the alternate CP should the main CP be destroyed. It is positioned away from the main CP but in proximity to the aid station and supply activities. The CTCP must establish redundant communications with the main CP so that direct communication is possible between the two headquarters.

h. **Strongpoint Command and Control.** The commander develops his strongpoint defense plan by using the terrain to its utmost advantage. The commander must be able to traverse the strongpoint and respond to an attack from any direction. His observation posts must afford the opportunity to observe the battle. Communication wire must be buried deep in the strongpoint and field phones made available throughout the position.

5-47. PERIMETER DEFENSE

A perimeter defense is a defense oriented in all directions (Figure 5-14, page 5-60). The battalion uses it for self-protection. The battalion establishes a perimeter defense when it must hold critical terrain in areas where the defense is not tied in with adjacent units. The battalion may also form a perimeter when it has been bypassed and isolated by the enemy and must defend in place. These differences are in contrast to the strongpoint defense, in which the position is tied in with the rest of the defense and considerable time and resources are spent to hold the ground.
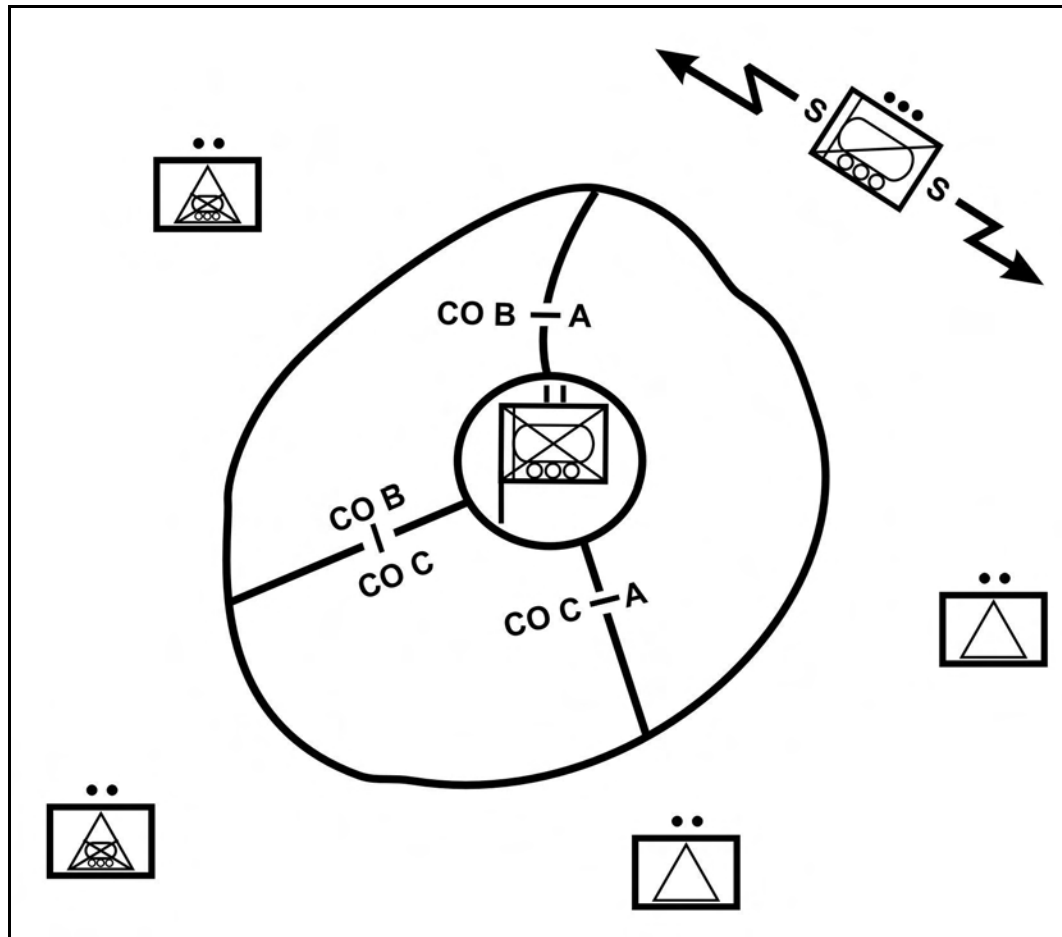
Figure 5-14. Perimeter defense.

a. **Planning Considerations.** While in a perimeter defense, the battalion should consider--

- Positioning MGS and antiarmor weapons systems on restricted terrain to overwatch mounted avenues of approach.
- Providing as much depth as the diameter of the perimeter allows through the location of security elements, the reserve, and secondary sectors of fire of antitank weapons.
- Constructing obstacles to fix or block the enemy so he can be engaged effectively.
- Maintaining an antiarmor heavy reserve.

b. **Retention of Key Terrain.** The battalion retains terrain key to future operations such as linkup, extraction, or breakout. The battalion commander employs a security force outside the perimeter for early warning. He augments the security force with mounted or dismounted patrols and OPs controlled by subordinate companies on the perimeter. Periodic patrols cover areas that stationary elements cannot observe.

c. **Battalion Reserve.** The battalion reserve defends a portion of the second line of defense behind the perimeter elements. The reserve must have the mobility to react to enemy action in any portion of the perimeter. It is positioned to block the most dangerous avenue of approach and is assigned on-order positions on other critical avenues. If the

enemy penetrates the perimeter, the reserve blocks the enemy penetration or counterattacks to restore the perimeter. After committing the reserve, the commander immediately designates a new reserve force to meet other threats.

d. **Command and Control.** If the battalion forms the perimeter because of isolation, then combat, CS, and CSS elements from other units come under the tactical command of the senior combat commander in the perimeter. The commander assigns them missions based on support capabilities.

e. **Combat Service Support.** CSS elements may support from inside the perimeter or from another location depending on the mission and status of the battalion, the type of transport available, the weather, and the terrain. All service support assets inside the perimeter should be in a protected location from which they can provide continuous support. Since resupply may have to be done by air, the position should include or be near a landing or drop zone. The availability of LZs and DZs protected from the enemy's observation and fire is a main consideration in selecting and organizing the position. Since aerial resupply is vulnerable to weather and enemy fires, commanders must emphasize supply economy and protection of available stocks.

5-48. RESERVE

The reserve is a force withheld from action to be committed at a decisive moment. It provides the commander with the flexibility to exploit success or deal with a tactical setback and the flexibility to respond in situations where there is a great deal of uncertainty about the enemy. Normally, the battalion commander can only allocate a platoon as a reserve. This decreases the ability of the battalion to respond to tactical emergencies or to exploit success. It increases the significance of the SBCT's reserve element, which may be only a company or a two-company battalion operating over an extended area. On the modern battlefield, situational obstacles, fires, CAS, and attack aviation will increasingly be used to augment reserve forces, usually at the SBCT level.

a. The choice of a force designated to be a reserve depends upon the factors of METT-TC. Generally, an MGS platoon, reinforced with an infantry rifle squad, is ideal because of its mobility, firepower, and limited obstacle breaching capability. In close terrain, an infantry force may be best suited. In compartmented or restricted terrain against a mechanized enemy, mobile Javelin teams can be an effective reserve force.

b. The reserve's likely tasks are issued as planning priorities and may include one or more of the following:
- Counterattack locally.
- Defeat enemy air assaults
- Block enemy penetrations.
- Reinforce a committed company.
- Protect rear area operations.
- Secure high-value assets.

c. During defensive preparations, the battalion commander may employ his reserve in other tasks, such as security operations or rear area security. The commander must balance these uses with the needs to protect his reserve and with the commander's requirement to conduct troop-leading procedures, coordination, and reconnaissance.

d. The commander and staff must determine where and under what conditions the reserve force is likely to be employed in order to position it effectively and give it

appropriate planning priorities. The reserve force commander must analyze his assigned planning priorities, conduct the coordination with units that will be affected by his maneuver and commitment, and provide information to the commander and staff on routes and employment times to designated critical points on the battlefield.

5-49. COUNTERATTACK

The battalion may conduct local counterattacks to restore or preserve defensive integrity. Unless defensive operations have left the battalion largely unscathed, the battalion usually lacks the ability to conduct a significant counterattack by itself. Within the context of the SBCT's operations, a defending battalion may execute a counterattack to support the SBCT's defensive posture, as part of a larger force seeking to complete the destruction of the enemy's attack, or as part of a transition to offensive operations.

Section VI. COUNTERMOBILITY, MOBILITY, AND SURVIVABILITY INTEGRATION

Much of the strength of a defense rests on the integration and construction of reinforcing obstacles, exploitation of existing obstacles, and actions to enhance the survivability of the force through construction of fighting positions and fortifications. The commander's intent focuses mobility and survivability (M/S) planning through his articulation of obstacle intent (target, relative location, obstacle effect) and priorities and establishment of priorities for survivability and mobility. Guided by that intent, the battalion engineer (usually the DS engineer company commander) develops a scheme of engineer operations that includes engineer task organization, priorities of effort and support, subordinate engineer unit missions, and M/S instructions for all units. Chapter 10 contains information on engineer systems and capabilities.

5-50. COUNTERMOBILITY

The commander and staff develop the obstacle plan concurrently with the fire support plan and defensive scheme, guided by the commander's intent. (Figure 5-15, illustrates an example of a battalion obstacle plan.) They must integrate into the intelligence collection plan the use of intelligent minefields such as Raptor, if allocated. The commander's intent for countermobility should contain three elements.

a. **Target.** The target is the enemy force that the commander wants to affect with fires and tactical obstacles. The commander identifies the target in terms of the size and type of enemy force, the echelon, the avenue of approach, or a combination of these methods.

b. **Effect.** This is the intended effect that the commander wants the obstacles and fires to have on the targeted enemy force. Tactical obstacles produce one of the following effects: block, turn, fix, or disrupt (Table 5-2, page 5-64). The obstacle effect drives integration, focuses subordinates' fires, and focuses the obstacle effort.

c. **Relative Location.** The relative location is where the commander wants the obstacle effect to occur against the targeted enemy force. Whenever possible, the commander identifies the location relative to the terrain and maneuver or fire control measures to integrate the effects of obstacles with fires.
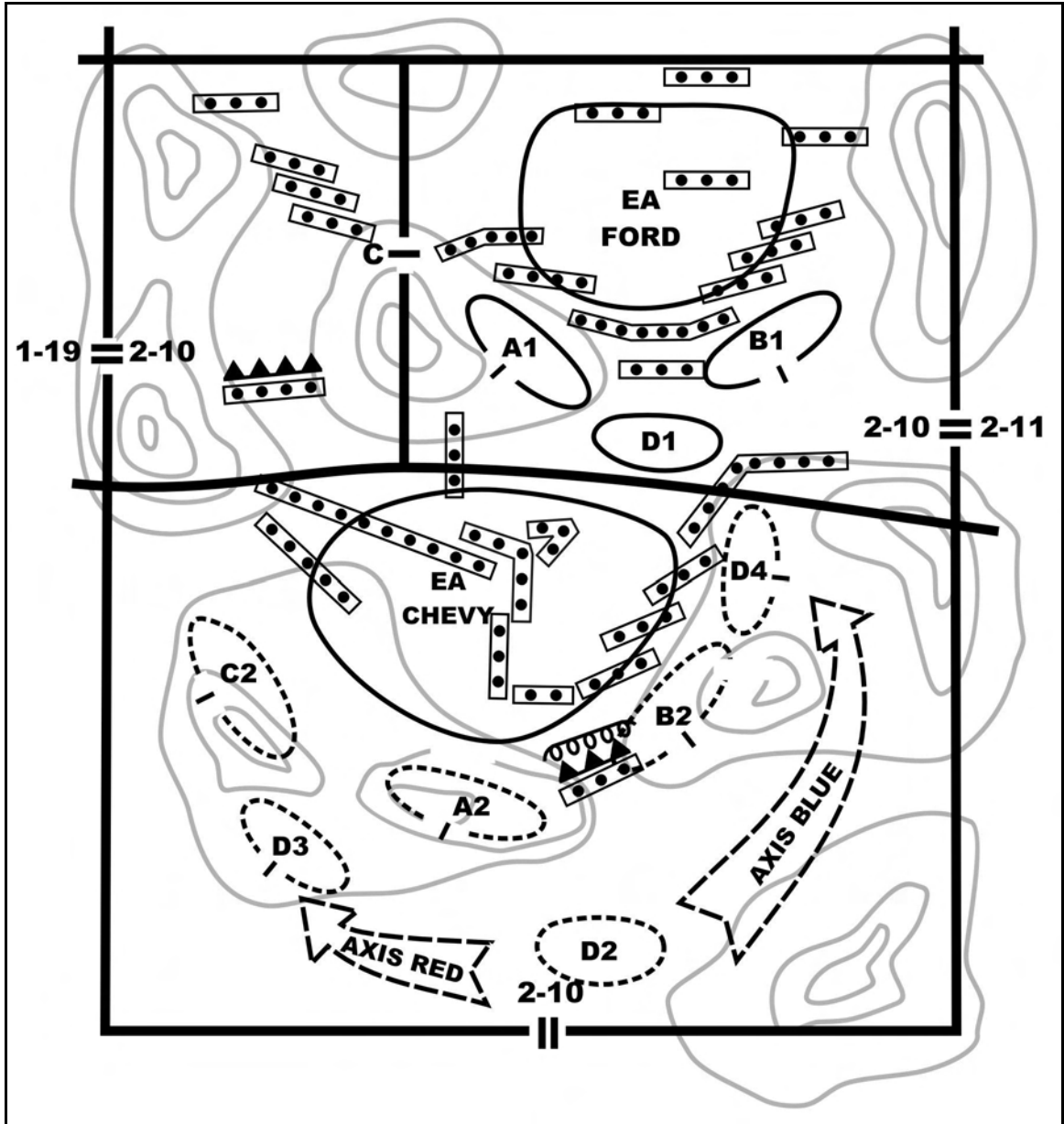
Figure 5-15. Example of a battalion obstacle plan.

OBSTACLE EFFECT	PURPOSE	FIRES AND OBSTACLES MUST:	OBSTACLE CHARACTERISTICS
DISRUPT ❶	• Breakup enemy formations. • Interrupt the enemy's timetable and C2. • Cause premature commitment of breach assets. • Cause the enemy to piecemeal his attack.	• Cause the enemy to deploy early. • Slow part of his formation while allowing part to advance unimpeded.	• Do not require extensive resources. • Difficult to detect at long range.
FIX ❷	• Slow an attacker within an area so he can be destroyed. • Generate the time necessary for the friendly force to disengage.	• Cause the enemy to deploy into attack formation before encountering the obstacles. • Allow the enemy to advance slowly in an EA or AO. • Make the enemy fight in multiple directions once he is in the EA or AO.	• Arrayed in depth. • Span the entire width of the avenue of approach. • Must not make the terrain appear impenetrable.
TURN ❸	• Force the enemy to move in the direction desired by the friendly commander.	• Prevent the enemy from bypassing or breaching the obstacle belt. • Maintain pressure on the enemy force throughout the turn. • Mass direct and indirect fires at the anchor point of the turn.	• Tie into impassable terrain at the anchor point. • Consist of obstacles in depth. • Provide a subtle orientation relative to the enemy's approach.
BLOCK ❹	• Stop an attacker along a specific avenue of approach. • Prevent an attacker from passing through an AO or EA. • Stop the enemy from using an avenue of approach and force him to use another avenue of approach.	• Prevent the enemy from bypassing or penetrating through the belt. • Stop the enemy's advance. • Destroy all enemy breach efforts.	• Must tie into impassable terrain. • Consist of complex obstacles. • Defeat the enemy's mounted and dismounted breaching effort.

Table 5-2. Obstacle effects.

d. **Tactical Obstacles.** Obstacles are force-oriented combat multipliers. The battalion employs tactical obstacles to attack the enemy's ability to move, mass, and reinforce directly. Tactical obstacles are integrated into the scheme of maneuver and fires to produce specific obstacle effects. Obstacles alone do not produce significant effects

against the enemy; obstacles must be integrated with fires to be effective. The engineer section in Chapter 10 provides tables and specific information on engineer capabilities and obstacle effects. The following are the three types of tactical obstacles:

(1) *Directed.* The SBCT directs obstacles as specified tasks to the battalion through the use of obstacle belts. The battalion may use the same technique, but more likely will be specific about the location and type of obstacle. The commander may use directed obstacles or obstacle groups to achieve specific obstacle effects at key locations on the battlefield. In this case, the staff plans the obstacle control measures and resources as well as determines measures and tasks to subordinates to integrate the directed obstacles with fires.

(2) *Situational.* Situational obstacles are obstacles that the SBCT or battalion plans and possibly prepares before an operation; however, they do not execute the obstacles unless specific criteria are met. Situational obstacles are "be-prepared" obstacles and provide the commander with flexibility for employing tactical obstacles based on battlefield developments. The commander may use engineer forces to emplace tactical obstacles rapidly, but more often he relies on scatterable mine systems. The SBCT staff normally plans situational obstacles to allow the commander to shift his countermobility effort rapidly to where he needs it the most based on the situation. Execution triggers for situational obstacles are integrated into the decision support template (see Chapter 10, Section III, and FM 90-7, for situational obstacles). Situational obstacles must be well integrated with tactical plans to avoid fratricide. Given the changes in engineer force structure, tactical concepts, and capabilities, situational obstacles are increasingly used in lieu of conventionally emplaced obstacles.

(3) *Reserve.* Reserve obstacles are obstacles for which the commander restricts execution authority. These are "on-order" obstacles. The commander specifies the unit responsible for constructing, guarding, and executing the obstacle. Examples of reserve obstacles include preparing a bridge for destruction or an obstacle to close a lane. Units normally prepare reserve obstacles during the preparation phase. They execute the obstacle only on command of the authorizing commander or when specific criteria are met. (See FM 90-7, Chapter 6, for specific considerations for planning reserve obstacles.) It is critical for the unit to understand and rehearse actions to execute reserve obstacles.

NOTE: In addition to tactical obstacles, units also employ protective obstacles. Protective obstacles are a key component of survivability operations, providing friendly forces with close-in protection. (See FM 90-7.)

e. **Obstacle Groups.** Obstacle groups are one or more individual obstacles grouped to provide a specific obstacle effect. Battalions integrate obstacle groups to ensure that companies plan individual obstacles that support the scheme of maneuver. Companies integrate individual obstacles with direct- and indirect-fire plans to achieve the specified obstacle group effect.

(1) Obstacle groups normally attack the maneuver of enemy battalions. Normally, commanders plan obstacle groups along enemy battalion avenues of approach (Aas) as defined by company mobility corridors. They may plan a group along a company-size avenue of approach. Unlike obstacle zones or belts, obstacle groups are not "areas" but are relative locations for obstacle construction. Obstacle groups are represented by

obstacle effect symbols (block, fix, turn, disrupt) on battalion graphics; however, commanders may refine obstacle group symbology with individual obstacle graphics if the plan requires specific obstacle types.

(2) Battalion commanders plan obstacle groups within assigned obstacle zones or belts. When given a belt with an assigned effect, the battalion commander may use any combination of group effects if the sum effect of all groups achieves the overall effect of the belt.

(3) Obstacle groups impose strict limitations on company commanders to preserve the link between obstacle effects and the fire plan. The limitations are similar to the limitations imposed by a BP. A group does not give the exact location of obstacles in the group just as a BP does not show the exact location of each weapon in the company. The company commander and the emplacing engineer coordinate these details directly. Company commanders may make changes to obstacles and fire-control measures based on the reality of the terrain. These changes must be coordinated with and tracked by the battalion commander and staff to maintain the fidelity of the desired obstacle group effect and integration into the battalion scheme of maneuver.

(4) Battalions do not normally assign a company more than one obstacle group; however, a company may effectively fight two groups at a time if the terrain supports it. To mass fires on an obstacle group, more than one company often covers a single obstacle group within an EA. In these cases, the commander responsible for establishing the EA is also responsible for integrating the obstacle group. Normally, the battalion commander or S3 plays a significant role in building and synchronizing an EA covered by two or more companies.

(5) Obstacle groups, resource factors, and standard individual obstacles are the basis of battalion obstacle logistics planning. They enable the commander and staff to allocate the necessary resources to each obstacle group, EA, or company BP. These tools also enable the staff to identify critical shortfalls, plan the flow of materials within the battalion area, and schedule resupply.

f. **Tactical Obstacle Planning.** Detailed obstacle planning begins during COA development. The engineer focuses on five specifics in his scheme of engineer operations for the obstacle plan.

(1) *Direct and Indirect Fire Analysis.* The direct and indirect fire analysis examines how engineers can best use obstacles to enhance the direct and indirect fire plan. The engineer must have a fundamental understanding of the direct and indirect fire and maneuver plans and the battalion's organization of the EA to integrate obstacles effectively with the direct and indirect fire plan. The engineer must consider battalion EAs, TRPs, indirect fire targets, unit locations, enemy formations, AAs, and the commander's obstacle intent in order to effectively integrate obstacles. Synchronization of direct and indirect fires with obstacles multiplies the relative effect on the enemy.

(2) *Obstacle Intent Integration.* The engineer plans directed obstacle groups during the COA development process. Obstacle groups integrated into the COA sketch graphically depict the commander's obstacle intent to support the maneuver plan. Obstacle groups target specific enemy elements based on the SITEMP. The engineer generally allocates an obstacle group against a battalion-sized avenue of approach with respect to the EAs, TRPs, indirect fire targets, unit locations, enemy formations, and avenues of approach assessed during the direct fire analysis. This process parallels the

staff's placement of a company against the same size enemy force. The intent of the obstacle groups supports subordinate unit task and purpose. The engineer recommends specific obstacle group effects to the commander based on terrain, resources, time available, and the battalion commander's obstacle intent.

(3) *Obstacle Priority.* The staff determines the priority of each obstacle group. The commander's intent and the most likely enemy COA clearly influence the priority. The obstacle priority should reflect the battalion's most critical obstacle requirement. The battalion engineer considers flank protection, weapons types and ranges, and the commander's overall intent for the entire force before placing obstacle priority on the main EA. Priorities assist the engineer in allocating resources and ensuring that the most critical obstacle groups are constructed first.

(4) *Mobility Requirements.* The engineer identifies battalion mobility requirements by analyzing the scheme of maneuver, counterattack (CATK) options, reserve planning priorities, CS and CSS movement requirements, and adjacent and higher unit missions, maneuver, and movement. The engineer integrates this analysis into obstacle group planning and avoids impeding friendly maneuver whenever possible. Because the bulk of the engineer force is committed to countermobility and survivability during defensive preparation, the battalion commander uses clear obstacle restrictions on specific areas within the battalion AO to maintain mobility. If obstacles must be constructed along a mobility corridor that primarily supports friendly movement, a lane or gap--and associated closure procedures--must be planned and rehearsed. These lanes or gaps may be closed with situational or reserve obstacles.

(a) Beyond preparing and marking lanes and gaps through obstacles, engineers normally perform mobility tasks once defensive preparations are complete. Mobility assets may then be positioned to counter templated enemy situational obstacles, or be task organized to the reserve, CATK force, or any other unit that must maneuver or move subsequent to the execution of the defense. To do this effectively, the engineers and the supported maneuver unit must integrate, prepare, and rehearse. Since this manner of mobility support is critical to the success of the maneuver plan, timely linkup and coordination must be factored into the overall defensive preparation timeline.

(b) Sometimes the battalion may require significant mobility support during defensive preparation. Examples may include route clearance, road repair or maintenance, and LZ and PZ clearance. SBCT engineers are adequately resourced to perform this type of mobility support, but they clearly cannot concurrently prepare the defense and execute these tasks. Thus, the battalion requires augmentation from a divisional multifunction engineer battalion. These engineers perform general engineering tasks, leaving the SBCT engineers available to construct the battalion defense.

5-51. SURVIVABILITY

Survivability operations in support of ground maneuver elements are increasingly limited given force structure and tactical concepts. Digging-in combat vehicles is a technique that still has value in many situations, but the increasing need for mobility in defensive operations and the proliferation of precision munitions reduce the effectiveness of static, dug-in forces. Survivability efforts within the battalion should focus on protection of assets that must remain relatively static (such as communication nodes), support of

logistical and decontamination operations, and survivability for defending dismounted infantry.

CHAPTER 6
URBAN OPERATIONS

*Urban operations are not new to the US Army. Throughout its history the Army has fought enemies on urban terrain. What **is** new is that urban areas and urban populations have grown significantly during the late twentieth century and have begun to exert a much greater influence on military operations. The worldwide shift from a rural to an urban society and the requirement to transition from combat to stability and support operations have affected the way US forces conduct combat operations. Companies, platoons, and squads will seldom conduct UO independently but will most probably conduct assigned missions as part of a battalion urban combat operation. This chapter provides the necessary background information to facilitate an understanding of how commanders plan and conduct UO.*

Section I. INTRODUCTION

Urban operations (UO) are defined as military actions that are planned and conducted on terrain where manmade construction affects the tactical options available to the commander. An urban area is a topographical complex where manmade construction and the population are the dominant features. Urban terrain confronts commanders with a combination of difficulties rarely found in other environments. Cities vary immensely depending on their history, the cultures of their inhabitants, their economic development, the local climate, available building materials, and many other factors. This variety exists not only among different cities but also within any particular urban area. The urban environment, like all environments, is neutral and affects all sides equally. The side that can best understand and exploit the effects of the urban area has the best chance of success. The following passage illustrates combined-arms operations conducted in an urban combat environment during World War II. It was written by LTC Darrel M. Daniel, commander, 2nd Bn, 26th Inf Regt, October, 1944, Battle of Aachen:

"The battalion plan of action was as follows: one platoon of Company "F," with a light machine gun section, would stage the initial diversionary attack. It would be supported by two tanks and two tank destroyers, who were instructed to shoot at all or any suspected targets. Observation posts had been manned on a slag pile to support the advance with 81-mm mortar fire...The platoon action was to be the first step...to reduce the town of Aachen.

"...the remainder of our zone of action...would be cleared by Companies "F" and "G," who would execute a flanking attack, jumping off abreast of each other through the area secured by the Company "F" platoon...Preparatory fire by medium artillery was to be planned...Mortar observers would accompany each company...Tanks and tank destroyers were assigned to each company..."

6-1.   FUNDAMENTALS OF URBAN OPERATIONS

The fundamentals described in this paragraph apply to UO regardless of the mission or geographical location. Some fundamentals may also apply to operations not conducted in an urban environment but are particularly relevant in an environment dominated by manmade structures and a dense noncombatant population. SBCT and battalion commanders and staffs should use these fundamentals when planning UO.

a.   **Perform Focused Information Operations.** Information superiority efforts aimed at influencing non-Army sources of information are critical in UO. Because of the density of noncombatants and information sources, the media, the public, allies, coalition partners, neutral nations, and strategic leadership will likely scrutinize how units participate in UO.

(1) The proliferation of cell phones, Internet capability, and media outlets ensure close observation of unit activities. With information sources rapidly expanding, public information about Army operations will be disseminated rapidly. Units, therefore, should aggressively integrate information operations into every facet and at all levels of the operation to prevent negative impacts.

(2) Under media scrutiny, the actions of a single soldier may have significant strategic implications. The goal of information operations is to ensure that the information available to all interested parties, the public, the media, and other agencies is accurate and placed in the proper context of the Army's mission. (See Appendix K, Media Considerations.)

(3) While many information operations will be planned at levels above the SBCT, tactical units conducting UO may often be involved in the execution of information operations such as military deception, operations security, physical security, and psychological operations. Brigades and battalions must conduct aggressive ISR and security operations that will allow them to properly apply the elements of assess, shape, dominate, and transition to specific UO.

b.   **Conduct Close Combat.** Close combat is required in offensive and defensive UO. The capability must be present and visible in stability UO and may be required, by exception, in support UO. Close combat in UO is resource intensive, requires properly trained and equipped forces, has the potential for high casualties, and can achieve decisive results when properly conducted. Units must always be prepared to conduct close combat as part of UO (Figure 6-1).

Figure 6-1. Soldiers conducting close combat in an urban area.

c. **Avoid the Attrition Approach.** Previous doctrine was inclined towards a systematic linear approach to urban combat. This approach placed an emphasis on standoff weapons and firepower. This approach can result in significant collateral damage, a lengthy operation, and be inconsistent with the political situation and strategic objectives. Enemy forces that defend urban areas often want units to adopt this approach because of the likely costs in resources. Commanders should consider this tactical approach to urban combat only when the factors of METT-TC warrant its use.

d. **Control the Essential.** Many modern urban areas are too large to be completely occupied or even effectively controlled. Therefore, units must focus their efforts on controlling only the essentials to mission accomplishment. At a minimum, this requires control of key terrain. In the urban environment, functional, political, or social significance may determine what terrain is considered key or essential. For example, a power station or a building may be key terrain. Units focus on control of the essential facilities or terrain so they can concentrate combat power where it is needed and conserve it. This implies risk in those areas where units choose not to exercise control in order to be able to mass overwhelming power where it is needed.

e. **Minimize Collateral Damage.** Units should use precision standoff fires, information operations, and nonlethal tactical systems to the greatest extent possible consistent with mission accomplishment. Commanders must consider the short- and long-term effects of firepower on the population, the infrastructure, and subsequent missions.

f. **Separate Combatants from Noncombatants.** Promptly separating noncombatants from combatants may make the operation more efficient and diminish some of the enemy's asymmetrical advantages. Separation of noncombatants may also reduce some of the restrictions on the use of firepower and enhance force protection. This important task becomes more difficult when the adversary is an unconventional force and can mix with the civil population.

g. **Restore Essential Services.** Tactical units may have to support a plan for the restoration of essential services that may fail to function upon their arrival or cease to function during an operation. Essential services include power, food, water, sewage, medical, and security. During planning for and the conduct of UO, the commander must use all available assets to minimize collateral damage to potentially vital infrastructure. (See Appendix F, Environmental Concerns and Compliance.)

h. **Preserve Critical Infrastructure.** Commanders and staffs may have to analyze the urban area to identify critical infrastructure. Attempts to preserve the critical elements for post-combat sustainment operations, stability operations, support operations, or the health and well being of the indigenous population may be required. This requirement differs from simply avoiding collateral damage in that units may have to initiate actions to prevent adversaries from removing or destroying infrastructure that will be required in the future. In some cases, preserving critical infrastructure may be the assigned objective of the UO.

i. **Understand the Human Dimension.** The human dimension of the urban environment often has the most significance and greatest potential for affecting the outcome of UO. Commanders will have to carefully consider and manage the allegiance and morale of the civilian population as these can decisively affect operations. The assessment of the urban environment must identify clearly and accurately the attitudes of the urban population toward units. Commanders and staffs must make their assessments based on a thorough understanding and appreciation of the local social and cultural norms. Sound policies, discipline, and consideration will positively affect the attitudes of the population toward Army forces.

j. **Transition Control.** UO of all types are resource intensive and thus commanders must plan to conclude UO expediently yet consistent with successful mission accomplishment. The end state of all UO transfers control of the urban area to another agency or returns it to civilian control. This requires the successful completion of the mission and a thorough transition plan. The transition plan may include returning control of the urban area to another unit or agency a portion at a time as conditions permit.

6-2. GENERAL CONSIDERATIONS OF URBAN OPERATIONS

Throughout history, military planners have viewed cities as centers of gravity and sources of national strength. Cities are population centers; transportation and communication hubs; key nodes of industrial, financial, and information systems; seats of government; and repositories of wealth. Because of the changing nature of society and warfare, deployments into urban environments have become more frequent, and this trend is likely to continue. The purpose of such deployments will be to neutralize or stabilize extremely volatile political situations, to defeat an enemy force that has sought the protection afforded by urban terrain, or to provide assistance to allies in need of support. This chapter provides guidance necessary for planning and executing missions in an urban environment. The SBCT is the primary headquarters around which units are task-organized to perform UO.

a. **Urban Operations.** The increasing world population and accelerated growth of cities makes UO in future conflicts very likely. Operations in urban areas usually occur when--

- The assigned objective lies within an urban area and cannot be bypassed.
- The urban area is key (or decisive) in setting or shaping the conditions for current or future operations.
- The urban area is in the path of a general advance and cannot be surrounded or bypassed.
- Political or humanitarian concerns require the control of an urban area or necessitate operations within it.

- An urban area is between two natural obstacles and cannot be bypassed.
- Defending from urban areas supports a more effective overall defense or cannot be avoided.
- Occupation, seizure, and control of the urban area will deny the enemy control of the urban area and the ability to impose its influence on both friendly military forces and the local civilian population, thereby allowing friendly forces to retain the initiative and dictate the conditions for future operations.

b. **Organization.** The SBCT infantry battalion is well suited for urban operations because of its organizational structure and precision weapons systems, organic MGS platoons, and the numerous infantry-specific tasks associated with urban operations.

c. **Information Superiority.** The digitized SBCT infantry battalion derives considerable advantages from its ABCS equipment. While the MCS and FBCB2 do not depict the multiple levels of urban fighting and do not show precise detail in built-up area (BUA) mapping, their ability to transfer information quickly and to maintain the common operating picture throughout the battalion still represents a notable improvement over analog systems. When linked to a dismounted FBCB2, ABCS greatly enhances the combat effectiveness of Army combined arms teams and battalions in UO.

6-3. THE SBCT INFANTRY BATTALION'S ROLE IN URBAN OPERATIONS

The SBCT infantry battalion achieves tactical decision by means of combined arms at the company level focused on dismounted assault. Combined arms integration is vital to support dismounted operations by squads, platoons, and companies, including dispersed actions. Supported by direct fires from organic weapons systems onboard the ICV and the MGS, the battalion incorporates snipers, COLT fire support teams, mortars, artillery, mobility support, and joint fires and effects to provide the appropriate systems required for this integration. The battalion's core operational capabilities rest upon excellent operational and tactical mobility, enhanced situational understanding, and high infantry dismount strengths for close combat in urban and complex terrain.

a. **Isolation.** An incontrovertible fact in urban operations is that isolation is a key to victory. If the attacker fails to isolate the urban area, the defender can reinforce and resupply his forces, thus protracting the operation and significantly decreasing the attacker's resources and will to continue. If the defender allows himself to be isolated, the attacker seizes the initiative and forces the defender to take high-risk actions (such as a breakout or counterattack) to survive. Mounted forces are optimal for executing isolation operations because they possess the speed, agility, firepower, and protection necessary to shape successfully the urban area for offensive or defensive operations.

b. **Close Combat.** Historically, the close fight in urban combat has consisted of street-to-street fighting resulting in high casualties and high expenditure of resources. Combined arms forces use maneuver and situational understanding to position forces to accomplish their assigned missions in urban environments.

6-4. TACTICAL CHALLENGES

The battalion faces a number of challenges during the planning and execution of UO. The most likely challenges are discussed in the following paragraphs.

a. **Contiguous and Noncontiguous Areas of Operations.** The battalion must be prepared to conduct UO operations in both contiguous and noncontiguous areas of operations.

(1) Contiguous operations are military operations that the battalion conducts in an area of operations that facilitates mutual support of combat, CS, and CSS elements at varying levels. Contiguous operations have traditional linear features including identifiable, contiguous frontages and shared boundaries between forces. For battalions, relatively close distances among adjacent battalions, supporting assets, and subordinate units and elements characterize contiguous operations.

(2) In noncontiguous operations, the battalion may be required to operate independently, removed from SBCT CS and CSS assets by distance and time. Additionally, subordinate companies may operate in isolated pockets, connected only through integrating effects of an effective concept of operations. Noncontiguous operations place a premium on initiative, effective information operations, decentralized security operations, and innovative logistics measures. Noncontiguous operations complicate or hinder mutual support of combat, CS, and CSS elements because of extended distances between subordinate units and elements.

b. **Symmetrical and Asymmetrical Threats.** In addition to being required to face symmetrical enemy threats, the battalion must be prepared to face enemy threats of an asymmetrical nature.

(1) Symmetrical threats are generally "linear" in nature and include those enemy forces that specifically confront the battalion's combat power and capabilities. Examples of symmetrical threats include conventional enemy forces conducting offensive or defensive operations against friendly forces.

(2) Asymmetrical threats are those that are specifically designed to avoid confrontation with the battalion's combat power and capabilities. These threats may use the civilian population and infrastructure to shield their capabilities from battalion fires. Asymmetrical threats are most likely to be based in and target urban areas to take advantage of the density of civilian population and infrastructure. Examples of asymmetrical threats include terrorist attacks, weapons of mass destruction (WMD), electronic warfare (to include computer-based systems), criminal activity, guerilla warfare, and environmental attacks.

c. **Quick Transition from Stability or Support Operations to Combat Operations and Back.** Stability operations, and to a lesser extent support operations, are missions that may escalate to combat. The battalion must always retain the ability to conduct offensive and defensive operations. Preserving the ability to transition allows the battalion to maintain initiative while providing force protection. Commanders should consider planning a defensive contingency with on-order offensive missions in case stability and support operations deteriorate. Subordinate commanders and leaders must be fully trained to recognize activities that would initiate this transition.

d. **Rules of Engagement.** Urban operations are usually conducted against enemy forces fighting in close proximity to civilians. Rules of engagement and other restrictions on the use of combat power are more restrictive than in other conditions of combat. (See FM 3-06.11.)

Section II. MISSION, ENEMY, TERRAIN AND WEATHER, TROOPS AND SUPPORT AVAILABLE, TIME AVAILABLE, AND CIVIL CONSIDERATIONS (METT-TC)

Planning and preparation for UO are generally the same as for operations on open terrain. However, in order for the commander and staff to develop an effective COA, the force must conduct aggressive ISR operations. Urban operations require significant HUMINT reconnaissance because sensors and other technological devices are not as effective in urban environments. ISR operations can take the form of stealthy surveillance teams, tactical questioning of noncombatants, and reconnaissance of key terrain and avenues of approach. Using ISR assets and satellite imagery, the staff can develop urban maps that include a common reference system (such as numbering buildings) to assist subordinate unit C2. The commander and staff must also take into account special considerations when operating in this environment. This section provides special METT-TC considerations for UO.

6-5. MISSION

The battalion must close with and defeat the enemy in order to be decisive in urban operations. Close combat in urban operations is resource intensive, requires properly trained and equipped forces, and has the potential for high casualties. Therefore, the battalion must use close combat as its decisive operation only after shaping the urban area through aggressive reconnaissance and surveillance, isolation, precision fires, and maneuver.

    a. **Objective.** The commander and staff must clearly understand the purpose of the operation. The battalion's objective may be terrain- or force-oriented. The commander must consider whether committing his force to combat in urban areas is required or beneficial for achieving his intent.

    b. **Intent**. During planning for offensive operations, the commander and staff must consider the overall purpose and intent of the operation and define what is required. For example, the commander must determine if clearing means every building, block by block, or seizure of a key objective, which may require clearing only along the axis of advance. Often, the battalion can integrate urban areas into the defensive scheme to develop a stronger defense.

6-6. ENEMY

The battalion commander and staff must consider the strength, composition, disposition, and activities of the enemy. They must consider both conventional and unconventional enemy forces and the tactics the enemy may employ. Enemy tactics may range from ambushes and snipers to large-scale conventional actions conducted by heavy forces. The IPB must address the known and potential tactics and vulnerabilities of all enemy forces and threats operating within and outside the urban area. The IPB must consider the three-dimensional environment of urban areas: airspace, surface, and subsurface. It should also consider the political, racial, ethnic, tribal, and religious factors that influence the enemy. (See FM 34-130 for a detailed discussion of urban intelligence preparation of the battlefield.)

    a. The increasing availability of sophisticated technology has created unorthodox operational approaches that can be exploited by potential opponents. These approaches

seek to counter the technological and numerical advantages of US joint systems and forces and to exploit constraints placed on US forces due to cultural bias, media presence, ROE, and distance from the crisis location.

b. Offsetting their inherent weaknesses, enemy forces seek an advantage in urban terrain to remain dispersed and decentralized, adapting their tactics to provide them the best success in countering a US response. Threats, in addition to conventional forces, may consist of--

- Unconventional forces.
- Paramilitary forces.
- Militia and special police organizations.
- Organized criminal organizations.

These forces range from units equipped with small arms, mortars, machine guns, antiarmor weapons, and mines to very capable mechanized and armor forces equipped with current generation equipment. Urban environments also provide many passive dangers such as disease from unsanitary conditions and psychological illnesses. While the active threats vary widely, many techniques are common to all. The enemy may employ the following seven techniques during urban operations.

(1) *Use the Population to an Advantage.* The populace of a given urban area represents key terrain; the side that manages it best has a distinct advantage. Future urban battles may see large segments of the populace remain in place, as they did in Budapest and Grozny. Battalions involved in urban operations must conduct missions in and among the residents of the area.

(a) Enemy forces may use the population to provide camouflage, concealment, and deception for their operations. Guerilla and terrorist elements may look no different than any other members of the community. Even conventional and paramilitary troops may have a "civilian" look. Western military forces adopted the clean-shaven, close-cut hair standard at the end of the nineteenth century to combat disease and infection, but twenty-first century opponents might very well sport beards as well as civilian-looking clothing and other "nonmilitary" characteristics.

(b) The civilian population may also provide cover for enemy forces, enhancing their mobility close to friendly positions. Enemy forces may take advantage of US moral responsibilities and attempt to make the civilian population a burden on the Army's logistical and force protection resources. They may herd refugees into friendly controlled sectors, steal from US-paid local nationals, and hide among civilians during offensive operations.

(c) The civilian population may also serve as an important intelligence source for the enemy. Local hires serving among US soldiers, civilians with access to base camp perimeters, and refugees moving through friendly controlled sectors may be manipulated by enemy forces to provide information on friendly dispositions, readiness, and intent. In addition, enemy special purpose forces and hostile intelligence service assets may move among well-placed civilian groups.

(2) *Win the Information War.* Enemy forces may try to win the information war in direct opposition to the battalion's operations.

(a) Portable video cameras, Internet access, commercial radios, and cellular telephones are all tools that permit enemy forces to tell their story. American "atrocities" may be staged and broadcast. Electronic mail may be transmitted to sympathetic groups

to help undermine resolve. Internet websites provide easy worldwide dissemination of enemy propaganda and misinformation. Hackers may gain access to US sites to manipulate information to the enemy's advantage.

(b) The enemy may make skillful use of the news media. Insurgent campaigns, for example, need not be tactical military successes; they need only make the opposition's campaign appear unpalatable to gain domestic and world support. The media coverage of the Tet Offensive of 1968 affected the will of both the American people and their political leadership. Although the battle for Hue was a tactical victory for the US, the North Vietnamese clearly achieved strategic success by searing the American consciousness with the high costs of urban warfare. (See Appendix K, Media Considerations.)

(3) *Manipulate Key Facilities.* Enemy forces may identify and quickly seize control of critical components of the urban area to help them shape the battlespace to their own ends. Telephone exchanges provide simple and reliable communications that can be easily secured with off-the-shelf technologies. Sewage treatment plants and flood control machinery can be used to implement WMD strategies or to make sections of the urban area uninhabitable. Media stations significantly improve the information operations position of the controlling force. Power generation and transmission sites provide means to control significant aspects of civilian society over a large area.

(4) *Use the Three Dimensions of Urban Terrain.* The enemy thinks and operates throughout all dimensions of the urban environment. Upper floors and roofs provide the urban enemy forces excellent observation points and battle positions above the maximum elevation of many weapons. Shots from upper floors strike friendly armored vehicles in vulnerable points. Basements also provide firing points below many weapons' minimum depressions and strike at weaker armor. Sewers and subways provide covered and concealed access throughout the area of operations. Conventional lateral boundaries often do not apply as enemy forces control some stories of a building while friendly forces control others floors in the same building.

(5) *Employ Urban-Oriented Weapons.* Whether they are purpose-built or adapted, many weapons may have greater than normal utility in an urban environment while others may have significant disadvantages. Urban enemy weapons are much like the nature of urbanization and the urban environment: inventive and varied. Small, man-portable weapons, along with improvised munitions, can dominate the urban environment. Examples of enemy weapons favored in UO include--

- Weapons with no minimum depression or no maximum elevation.
- Weapons with little of no backblast (gas-metered, soft launch, and so on).
- Mortars.
- Sniper rifles. (See appendix C, Sniper Employment.)
- Machine guns.
- Grenades.
- Grenade launchers.
- Flame and incendiary weapons.
- Rocket-propelled grenades (RPGs) and other shoulder-fired antitank guided missiles (ATGMs).
- Riot control and tranquilizer agents.
- Mines and boobytraps.

(6) ***Engage the Entire Enemy Force.*** Enemy forces may "hug" battalions operating in an urban area to avoid the effects of high-firepower standoff weapon systems. They may also try to keep all or significant portions of the battalion engaged in continuous operations to increase the battalion's susceptibility to combat stress. UO, by their nature, produce an inordinate amount of combat stress casualties, and continuous operations exacerbate this problem. (See Appendix L, Continuous Operations.) The enemy may maintain a large reserve to minimize the impact of this on their own forces.

(7) ***Focus Attacks on Service Support and Unprotected Soldiers.*** Enemy forces may prey on soldiers poorly trained in basic infantry skills. Ambushes may focus on these soldiers while they are conducting resupply operations or moving in poorly guarded convoys. Urban operations are characterized by the isolation of small groups and navigational challenges, and the enemy may use the separation this creates to inflict maximum casualties even when there is no other direct military benefit from the action.

6-7. URBAN MAPPING

Prior to entering an urban environment, the battalion obtains or develops urban maps to assist in C2. The SBCT should attempt to gain access to city planner or civil engineer maps to provide detailed information of the urban area. The urban maps, whether digital or sketched, include a reference system to identify buildings and streets (Figure 6-2). Naming conventions should be simple to allow for ease of navigation and orientation in the urban environment (odd number buildings on left side of street, even numbers on right side). Street names should not be used as references because the enemy can remove or change street signs to confuse friendly forces.

    a. Initial map and aerial photograph reconnaissance can identify key terrain and other important locations in the AO.

    (1) ***Safe Havens.*** Safe havens include areas such as--
- Hospitals.
- Police stations.
- Embassies.
- Other (friendly) facilities.

    (2) ***Hazardous Areas.*** Hazardous areas such as--
- Construction sites.
- Dangerous intersections.
- Bridges.
- Criminal areas.

    (3) ***Major Terrain Features.*** Major terrain features such as--
- Parks.
- Industrial complexes.
- Airports.

    (4) ***Subterranean Features.*** Subterranean features such as--
- Sewers and utility systems.
- Subway systems.
- Underground water systems.
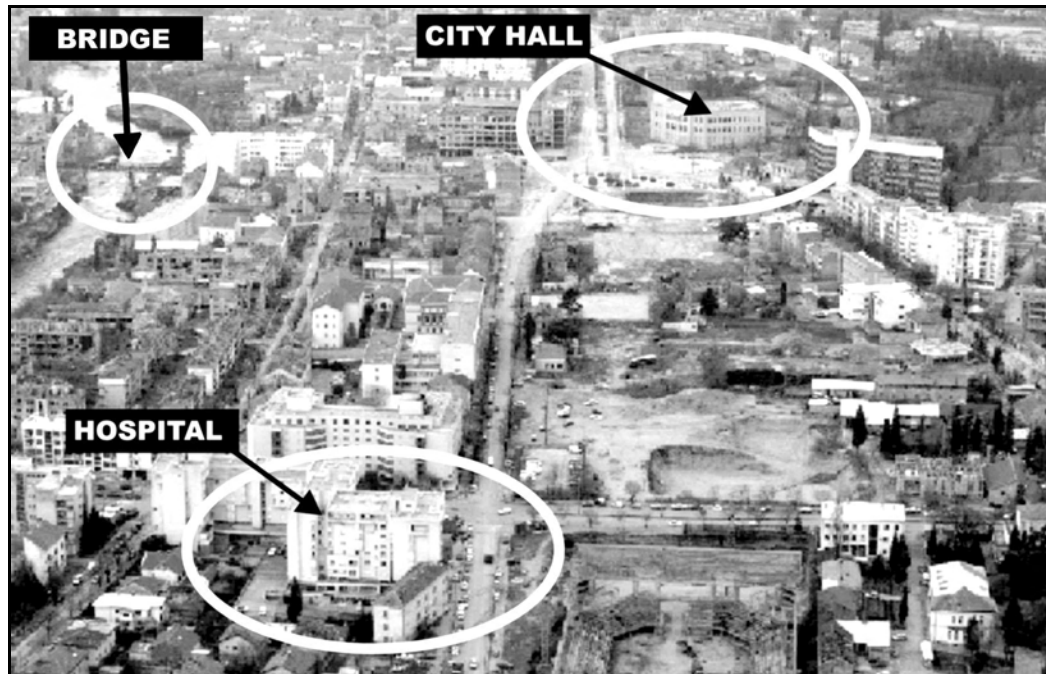
Figure 6-2. Initial photo reconnaissance of urban area of operations.

b. The urban map also facilitates control by providing a tool for tracking units in greater detail and obtaining precise location updates when digital systems (which produce the common operating picture) may be affected by urban terrain. The battalion uses ISR assets to confirm and update their urban maps. These improved maps are critical since most existing maps do not provide the level of detail necessary to conduct tactical operations. Specifically, the SBCT assesses avenues of approach in the urban AO. Included with the maps are overlays that categorize sections of the urban area by ethnicity, religious affiliation, and other prevailing characteristics that could affect operations (Figures 6-3 through 6-6, pages 6-12 through 6-15).
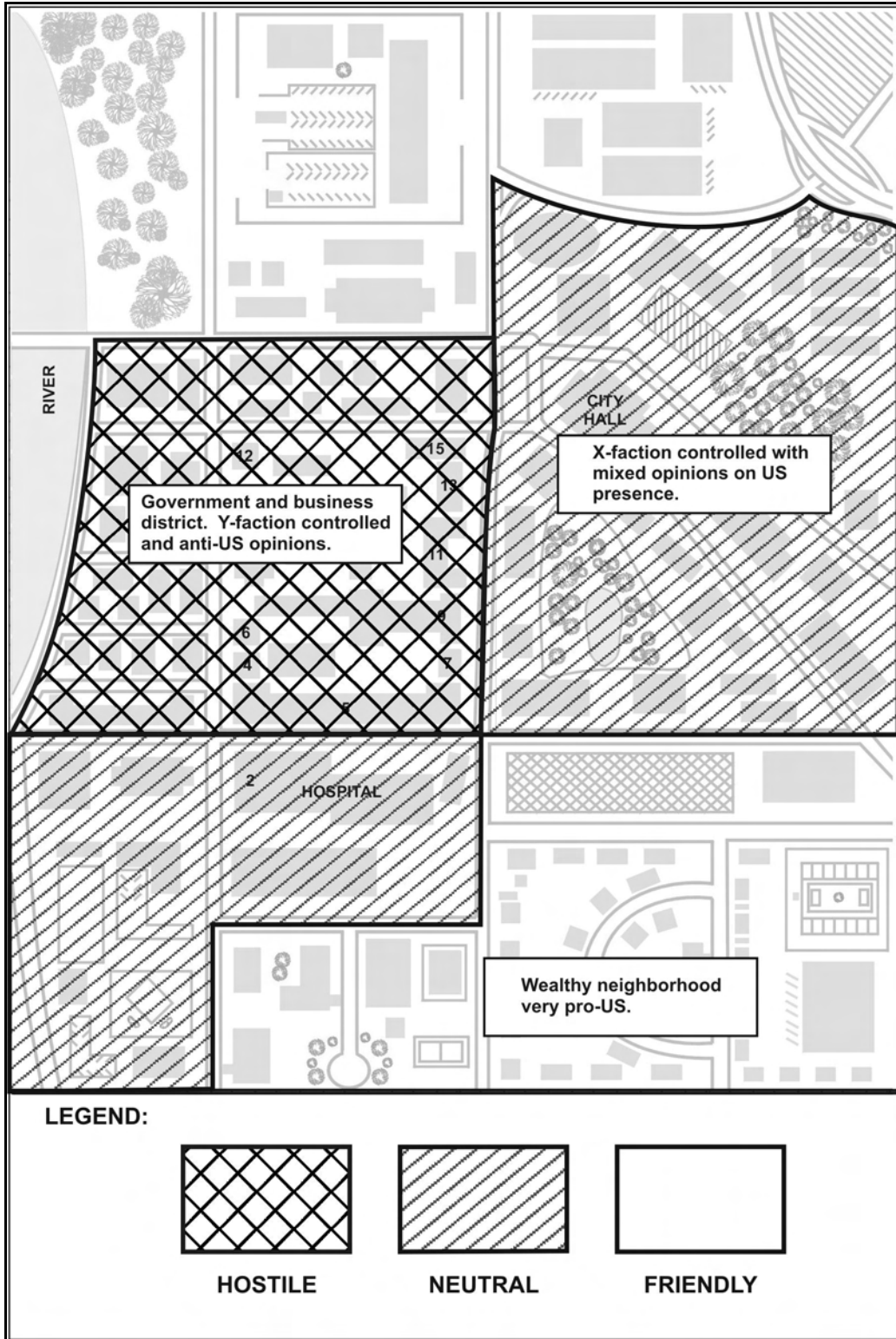
Figure 6-3. Example of population status overlay.
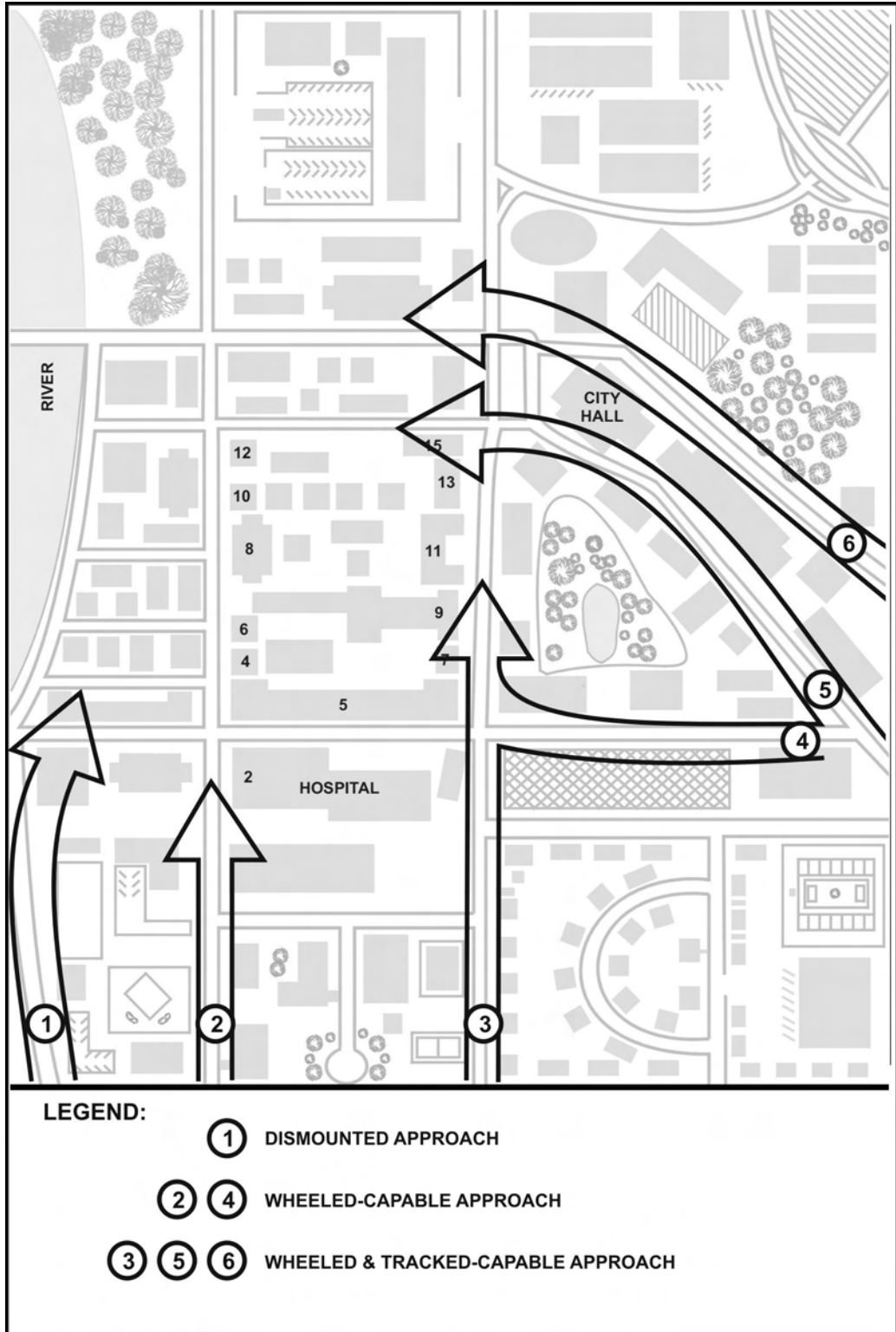
Figure 6-4. Avenues of approach in the urban area.
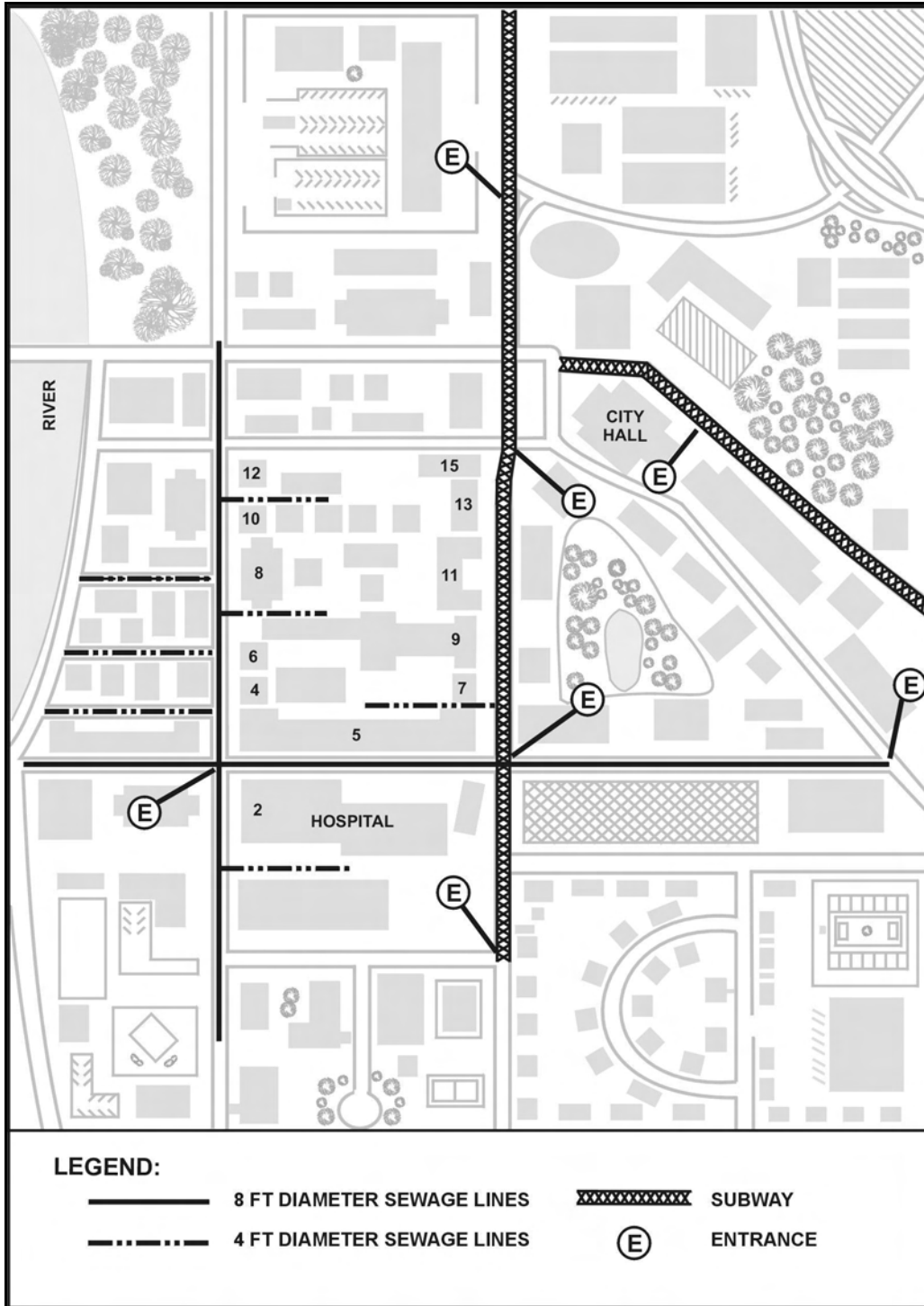
Figure 6-5. Sewer and subterranean overlay.
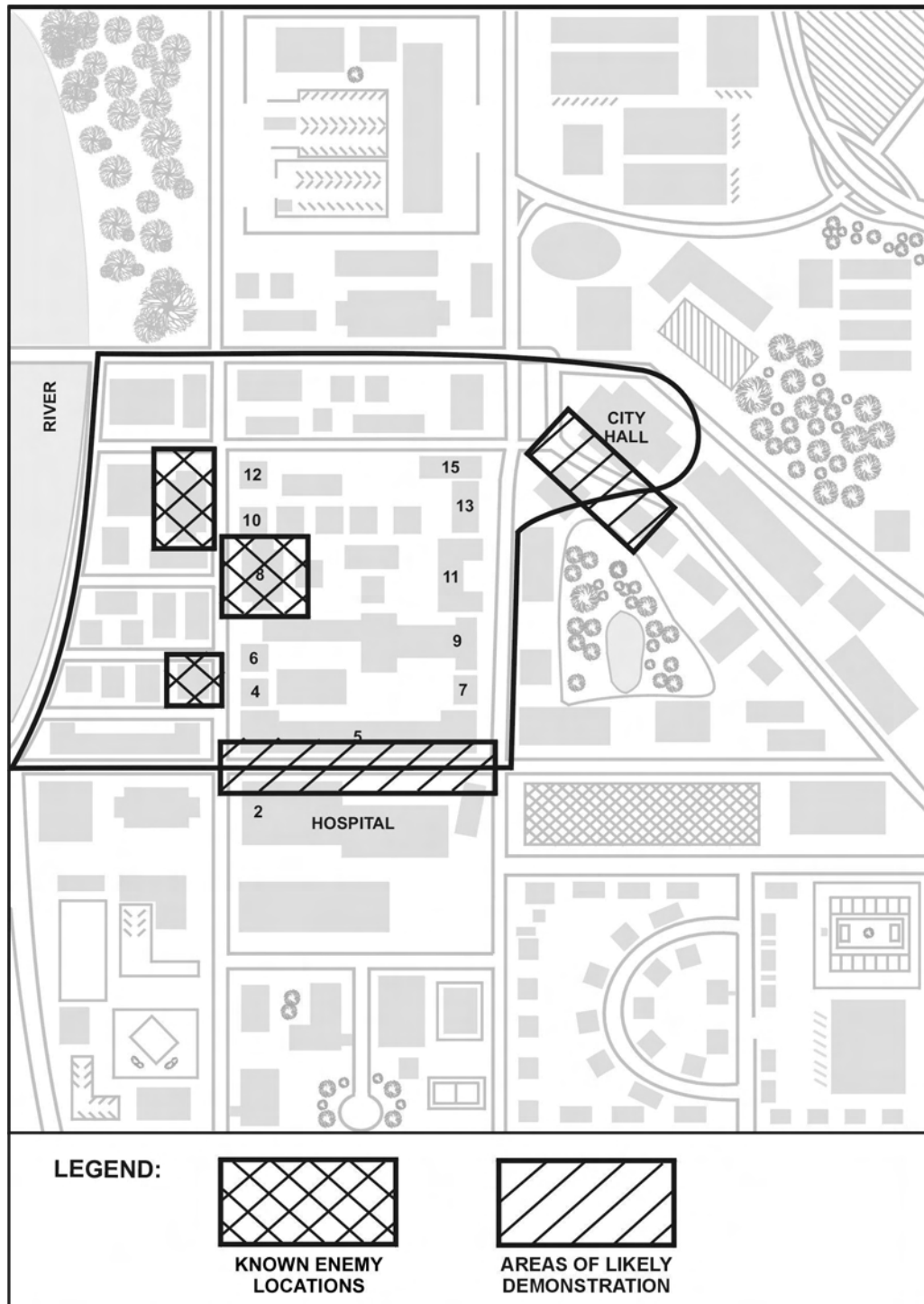
Figure 6-6. Enemy overlay.

6-8.   TERRAIN AND WEATHER

An urban area is a concentration of structures, facilities, and people that form the economic and cultural focus for the surrounding area. Battalion operations are affected by all categories of urban areas (Table 6-1, page 6-16). Cities, metropolises, and megalopolises with associated urban sprawl cover hundreds of square kilometers.

Battalions normally operate in these urban areas as part of a larger force. Extensive combat in these urban areas involves units of division level and above.

Villages (Population of 3,000 inhabitants or less)	The battalion's AO may contain many villages. Battalions and companies bypass, move through, defend from, and attack objectives within villages as a normal part of SBCT operations.
Towns (Population over 3000 up to 100,000 inhabitants)	Operations in such areas normally involve brigade-sized or larger units. Battalions may bypass, move through, defend in, or attack enemy forces in towns as part of division operations. Operations in these areas normally require the full commitment of the SBCT or higher echelon formations.
Cities (Population of 100,000 to 1 million inhabitants)	Extensive combat in large cities involves divisions and larger formations. Battalions may fight adjacent to, on the edges of, or inside cities.
Metropolis (Population over 1 million to 10 million)	Extensive combat in large cities involves divisions and larger formations. Battalions may fight adjacent to, on the edges of, or inside cities.
Megalopolis (Population over 10 million inhabitants**)**	Extensive combat in large cities involves divisions and larger formations. Battalions may fight adjacent to, on the edges of, or inside cities.

Table 6-1. Categories of urban areas.

a. **Terrain.** A detailed analysis of the urban area and surrounding terrain is vital to the success of any operation in an urban area (see FM 34-130 and FM 3-06.11). The battalion commander must understand the elements of the urban infrastructure that are necessary for achieving the intent and end state of the SBCT's mission. Military maps normally do not provide sufficient detail for terrain analysis of an urban area. Recent aerial photographs and other current intelligence products are critical. Maps and diagrams of the city from other sources, such as local governments, tourist activities, or law enforcement services, can be useful. Products that can be developed by the National Imagery Mapping Agency (NIMA) can be specifically tailored for the area of operations.

(1) The S2 should obtain maps and diagrams of the following:
- Subway systems, railways, and mass transit routes.
- Underground water, sewer, and utility systems.
- Electrical distribution systems, power stations, and emergency services.
- Fuel supply and storage facilities.
- Facilities for mass communications, such as cellular phones, computer hubs, radio, and telephone.
- Public administration buildings, hospitals, and clinics.

(2) The terrain analysis should also identify the following:
- Structural characteristics of buildings, bridges, and transportation networks.
- Roads, highways, rivers, streams, and other waterways that may be used as high-speed avenues of approach.

- Analysis of the natural terrain surrounding the urban area (observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment [OAKOC]).
- Analysis of the urban area itself to include street patterns, structure types, and available maneuver space (see FM 34-130).
- Covered and concealed approaches to the urban area.
- Key and decisive terrain inside and outside of the urban area.
- Identification of buildings, areas, or facilities protected by the law of land warfare or restricted by current ROE (such as churches, medical facilities, historic monuments, and other facilities dedicated to arts and sciences), provided they are not being used for military purposes (see FM 27-10).
- Stadiums, parks, open fields, playgrounds, and other open areas that may be used for landing zones or holding areas.
- Location of prisons and jails.
- Potential host nation support facilities such as quarries, lumber yards, major building supply companies, and warehouses.
- Power lines, telephone lines, and raised cables that may be hazards to helicopters.
- Significant fire hazards and locations of other toxic industrial materials (TIM).
- Weather effect products from topographic models or historical sources (for example, effects of heavy rains on local areas).

(3) A close relationship with the local government and military forces can be very beneficial. They can provide information about population, fire-fighting capabilities, locations of TIM, police and security capabilities, civilian evacuation plans, location of key facilities, and possibly current enemy activities. They may also be able to provide translators.

(4) An infrastructure analysis of the urban area is also important. Because urban infrastructures vary greatly, a comprehensive list cannot be provided. However, common characteristics include--

- Urban street patterns and trafficability.
- Sources of potable water.
- Bulk fuel and transport systems.
- Communications systems.
- Rail networks, airfields, canals and waterways, and other transportation systems.
- Industries.
- Power (to include nuclear) and chemical production facilities and public utilities.

b. **Weather.** Weather analyses that are important to battalion operations include visibility, winds, precipitation, and temperature and humidity.

(1) *Visibility.* Light data have special significance during urban operations. Night and periods of reduced visibility (including fog) favor surprise, infiltration, detailed reconnaissance, attacks across open areas, seizure of defended strong points, and reduction of defended obstacles. However, the difficulties of night navigation in

restricted terrain forces the battalion to rely on simple maneuver plans with easily recognizable objectives.

(2) *Winds.* Wind chill is not as pronounced in urban areas. However, the configuration of streets, especially in close orderly block and high-rise areas, can cause wind canalization.

(3) *Precipitation.* Rain or melting snow often floods basements and subterranean areas, such as subways, and also makes storm and other sewer systems hazardous or impassable. Chemical agents and other TIM are washed into underground systems by precipitation.

(4) *Temperature and Humidity.* Air inversion layers are common over cities, especially cities located in low-lying "bowls" or in river valleys. Inversion layers trap dust, chemical agents, and other pollutants, reducing visibility and often creating a greenhouse effect, which causes a rise in ground and air temperature. The heating of buildings during the winter and the reflection and absorption of summer heat make urban areas warmer than surrounding open areas during both summer and winter. This difference can be as great as 10 to 20 degrees and can reduce the effects of thermal sights and imaging systems.

6-9.   TROOPS AND SUPPORT AVAILABLE

During UO, the battalion is often augmented with additional assets, which may include engineers, ADA, and light infantry. Army aviation, FA, MP, public affairs, PSYOP, civilian affairs, smoke, decontamination, and long-range surveillance (LRS) assets, when available, may also support the battalion under SBCT control. (Refer to paragraph 6-14, page 6-21 and Figure 6-7, page 6-22, for a sample task organization. Actual task organizations depend on the factors of METT-TC.)

a.   **Troop Density, Equipment, and Ammunition.** Troop density for offensive missions in urban areas can be as much as three to five times greater than for similar missions in open terrain. Troops require additional equipment such as ladders, ropes, grappling hooks, and other entry equipment. The ammunition consumption rates for small arms, grenades (all types), Claymore mines, antitank guided missiles, .50 caliber, MK19 and 120-mm HE, and explosives can be four times the normal rate. The staff must ensure the continuous supply of Classes I, III, V, and VIII and water to forward units. Supplies should be configured for immediate use and delivered as far forward as possible to supported units.

b.   **Stress**. The commander and staff must consider the effects of prolonged combat on soldiers. Continuous close combat produces high psychological stress and physical fatigue. Rotating units committed to combat for long periods can reduce stress. Leaders should take extra effort and time to train and psychologically prepare soldiers for this type of combat. (See Appendix L, Continuous Operations.)

c.   **Discipline**. Maintaining discipline is especially important in UO. All commanders must ensure their soldiers understand and follow the established ROE. The law of land warfare prohibits unnecessary injury to noncombatants and needless damage to property. This prohibition may restrict the commander's use of certain weapons, munitions, and tactics.

6-10. TIME

Combat in urban areas has a slower tempo and an increased use of methodical, synchronized missions. In planning UO, the commander and staff must take these factors into account. Planning must allow more time for thorough reconnaissance, subordinate unit rehearsals, sniper and countersniper operations, demolitions, breaching, fire fighting, entry and movement techniques, fighting position construction, booby trap recognition and neutralization, combat lifesaver training, and crowd control.

6-11. CIVIL CONSIDERATIONS

The commander and staff must understand the composition, activities, and attitudes of the civilian population within the urban area, to include the political infrastructure. Various options are available to the commander to control the impact of civilians on the operation. These include screening civilians, prohibiting unauthorized movement, diverting or controlling refugee movements, and evacuating. Understanding the urban society requires comprehension of--

- Living conditions.
- Cultural distinctions.
- Ethnicity.
- Factions.
- Religious beliefs.
- Political affiliation and grievances.
- Attitudes toward US forces (friendly, hostile, or neutral).

a. **Curfew and Evacuation.** A commander with the mission of defending an urban area may need to establish a curfew to maintain security or to aid in control of military traffic. (Curfews are not imposed as punishment. They are normally established to reduce noncombatant casualties and provide a measure of force protection.) A commander can require civilians to evacuate towns or buildings if the purpose of the evacuation is to use the town or building for imperative military purposes, to enhance security, or to safeguard those civilians being evacuated. If the commander takes this action, he must specify and safeguard the evacuation routes. Battalions may also be involved in securing routes and possibly safeguarding food, clothing, medical, and sanitary facilities. Evacuated civilians must be transferred back to their homes as soon as hostilities in the area have ceased. The staff must plan for and coordinate the movement and evacuation of civilians to ensure their actions do not interfere with the military operation. The battalion staff and supporting civil affairs units working with local officials coordinate the movements of civilians.

b. **Resistance Groups.** The battalion may encounter civilian resistance groups whose actions may range from providing the enemy with supplies, services, and noncombat support to actively fighting against friendly forces. Members of such resistance groups should be dealt with in accordance with applicable provisions of the law of war. Commanders should seek guidance from the judge advocate general (JAG) concerning the detention and disposition of persons participating in acts harmful to friendly forces. The S2 must work with PSYOP and civil affairs units to identify these threats and recommend, within the ROE, the appropriate preemptive action or response. The activities of resistance groups may also benefit friendly forces. They may be a potential source for TAC HUMINT assets; act as guides, liaisons, or translators; and

provide subject-matter expertise on local public facilities such as refineries, power plants, and water works. They may also provide active resistance against the enemy.

Section III. CONTROLLING OPERATIONS

Urban operations require centralized planning and decentralized execution; therefore, the staff must develop a detailed plan that synchronizes the battle operating systems in order to meet the commander's intent and provide subordinate units with the means to accomplish the mission.

6-12. ENEMY FOCUS

During the mission analysis, the plan should focus on the factors of METT-TC. The commander orients the plan on the enemy rather than terrain. He uses terrain factors to defeat the enemy. Considerations include, but are not limited to, the following:

a. Thorough evaluation of the urban area's related terrain and enemy force may take much longer than in other environments. This time factor also affects friendly planning efforts.

b. Determine the enemy's location, strength, and capabilities. Develop a plan that defeats his direct and indirect fire systems.

c. Focus the axis of advance on the enemy's weaknesses while maintaining adequate force protection measures. When possible, employ multiple and supporting axes of advance.

d. Divide the objective area into manageable smaller areas that facilitate company maneuver.

e. Isolate the objective area and establish a foothold at the point of entry. The location chosen for the foothold must allow for expansion.

f. The SBCT and battalion maneuver plans directly affect the company schemes of maneuver. Every platoon within the battalion must know what enemy targets will be engaged by SBCT and battalion assets.

6-13. COMMANDER'S CRITICAL INFORMATION REQUIREMENTS

The commander's critical information requirements directly affect his decisions and dictate the successful execution of tactical operations. The battalion staff must develop the components of the CCIR that facilitate the commander's ability to make decisions affecting the plan during urban operations. Essential elements of friendly information address the enemy commander's priority intelligence requirements. Friendly forces information requirements are items that cause the commander to make decisions that affect the plan. The following are examples of PIR, EEFI, and FFIR that would help the commander in an urban environment.

a. **Priority Information Requirements.** These are intelligence requirements that a commander has anticipated and that have stated priority in task planning and decision making. Examples include--

- Is the enemy using AA1 to infiltrate into the battalion area of operations?
- Does mobility corridor three (Third Street) restrict movement of friendly armored and wheeled vehicles?

- Is there an enemy strongpoint located between 3rd Street and 5th Street along 3rd Avenue?
- Does the enemy have ADA assets positioned along air AA2?

  b. **Essential Elements of Friendly Information.** These are critical aspects of a friendly operation that, if known by the enemy, would subsequently compromise, lead to failure, or limit the success of the operation. Therefore, they must be protected from detection. Examples include--

- Have any of the battalion command nets been compromised?
- Has my LOC been disrupted, and where?
- Has the enemy located my Q36?

  c. **Friendly Forces Information Requirements.** This is information the commander and staff need about the friendly forces available for the operation. Examples include--

- Reconnaissance elements captured or compromised.
- Main bridge locations along the ground route that have been destroyed.
- OPORD compromised.
- Loss of cryptographic equipment.
- Expected personnel and equipment replacements that did not arrive.

6-14. TASK-ORGANIZATION OF UNITS TO ACCOMPLISH SPECIFIC TASKS

Urban operations may require unique task organizations. For example, urban operations provide one of the few situations where infantry and armor elements may be effectively task-organized below platoon levels. Battalion commanders must consider providing assets where they will be needed to accomplish specific tasks. All phases of mission execution must be considered when developing task organization. Changes in task organization may be required to accomplish different tasks during mission execution. Figure 6-7, page 6-22, depicts a sample task organization for an SBCT infantry battalion conducting offensive urban operations that consist of a main effort, two supporting efforts, and a reserve.
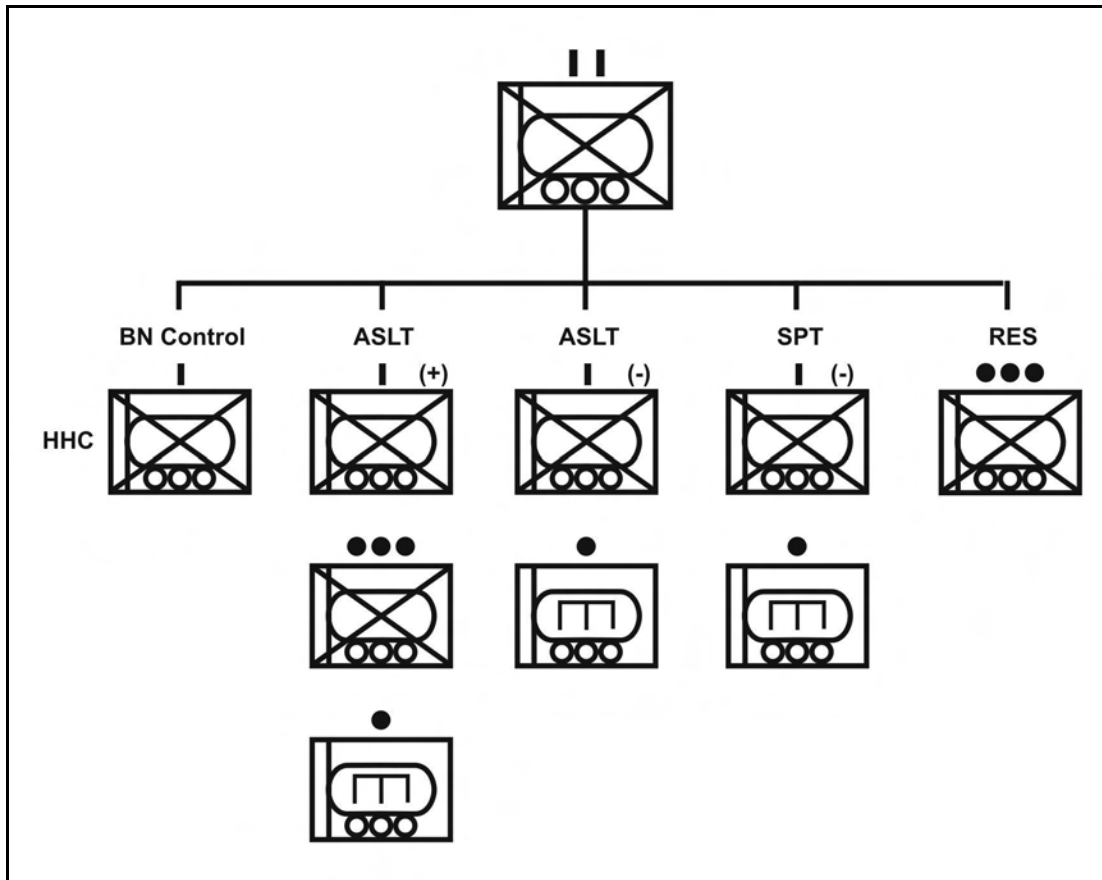
Figure 6-7. Sample offensive task organization.

NOTE: The task organization shown in Figure 6-7 may change after the assault when the battalion reorganizes for follow-on missions.

6-15. REHEARSALS

After developing a thorough, well-synchronized plan, battalion commanders should require subordinate units to conduct combined-arms rehearsals at the levels at which the operations will occur, to include all phases of the operation. When conducted properly, combined-arms rehearsals identify potential problems in the synchronization of the plan between maneuver, combat support, and combat service support elements. Rehearsals provide a means for units that seldom operate together to train collective skills. Rehearsals should start early in the troop-leading process. Some rehearsals can start shortly after receipt of warning orders. Subordinate units can rehearse drills, such as breaching, clearing buildings, and moving between buildings, before receiving a detailed plan. Infantry can also rehearse aspects of operating close to armored vehicles. The battalion commander and staff must allocate sufficient time to subordinate units to conduct rehearsals. Rehearsals for subordinate units to consider include, but are not limited to, the following:

- Communications procedures.
- Direct fire control plan.
- Fires and effects.

- Breaching.
- Maneuver.

6-16. FIRE SUPPORT

Often, the role of fires in UO is to get the maneuver force into or around the urban area with minimal casualties so that the commander has the maximum combat power to close with the enemy and finish the fight. Civil affairs and PSYOP assets should be coordinated with the appropriate command and control warfare or information operations planning headquarters.

6-17. FIELD ARTILLERY

Appropriate fire support coordination measures are essential because fighting in urban areas results in opposing forces fighting in close combat. When planning for fire support in an urban area, the battalion S3 and FSO should consider the following:

a. Target acquisition may be more difficult because of the increased cover and concealment afforded by the terrain. Ground observation is limited in urban areas. Adjusting fires is difficult since buildings block the view of adjusting rounds; therefore, the lateral method of adjustment may be most useful.

b. Initial rounds are adjusted laterally until a round impacts on the street perpendicular to the FEBA. Airburst rounds are best for this adjustment. The adjustments must be made by sound. When rounds impact on the perpendicular street, they are adjusted for range. When the range is correct, a lateral shift is made onto the target, and the gunner fires for effect.

c. Special considerations apply to shell and fuze combinations when buildings limit effects of munitions:

- Careful use of variable time (VT) is required to avoid premature arming.
- Indirect fires may create unwanted rubble and collateral damage.
- The close proximity of enemy and friendly troops requires careful coordination.
- White phosphorous may create unwanted fires and smoke.
- Fuze delay should be used to penetrate fortifications.
- Illumination rounds can be effective; however, friendly positions should remain in shadows and enemy positions should be highlighted. Tall buildings may mask the effects of illumination rounds.
- VT, time, and improved conventional munitions (ICMs) are effective for clearing enemy positions, observers, and antennas off rooftops.
- Swirling winds may degrade smoke operations.
- Scatterable mines may be used to impede enemy movements. SCATMINE effectiveness is reduced when delivered on a hard surface.

d. Target acquisition is difficult in urban terrain because the enemy has many covered and concealed positions and movement lanes. The enemy may be on rooftops, in buildings, and in sewer and subway systems. Aerial observers are extremely valuable for targeting because they can see deep to detect movements, positions on rooftops, and fortifications. Targets should be planned on rooftops to clear away enemy FOs as well as communications and radar equipment. Targets should also be planned on major roads, at road intersections, and on known or likely enemy positions. Consider employing artillery

in the direct fire mode to destroy fortifications, especially when assaulting well-prepared enemy positions. Also, restrictive fire support coordination measures, such as a restrictive fire area or no-fire area, may be needed to protect civilians and critical installations.

e.   M198 155-mm howitzers are effective in neutralizing concrete targets with direct fire. Concrete-piercing 155-mm rounds can penetrate 36 inches of concrete at ranges up to 2,200 meters. The mounted .50-caliber machine gun can also be used as direct fire support. Howitzers must be closely protected by infantry when used in the direct-fire mode since they do not have any significant protection for their crews.

f.   Forward observers must be able to determine where and how large the dead spaces are. This area is a safe haven for the enemy because he is protected from indirect fires. For low-angle artillery, the dead space is about five times the height of the building. For high-angle artillery, the dead space is about one half the height of the building.

g.   Aerial observers are effective for seeing behind buildings immediately to the front of friendly forces. They are extremely helpful when using the ladder method of adjustment because they may actually see the adjusting rounds impact behind buildings. Aerial observers can also relay calls for fire when communications are degraded due to power lines or masking by buildings.

h.   Radar can locate many artillery and mortar targets in an urban environment because of the high percentage of high-angle fires. If radar is sited too close behind tall buildings, it loses some effectiveness.

i.   The use of airburst fires is an effective means of clearing snipers from rooftops.

6-18.   MORTARS

Mortars are the most responsive indirect fires available to infantry commanders and leaders. Their mission is to provide close and immediate fire support to the maneuver units. Mortars are well suited for combat in urban areas because of their high rate of fire, steep angle of fall, and short minimum range. Commanders must ensure that mortar support is integrated into all fire support plans. (See FM 3-06.11 for detailed information on the tactical employment of mortars in the urban fight.)

a.   **Role of Mortar Units.** The role of mortar units is to deliver suppressive fires to support maneuver, especially against dismounted infantry. Mortars can be used to obscure, neutralize, suppress, or illuminate during urban combat. Mortar fires inhibit enemy fires and movement, allowing friendly forces to maneuver to a position of advantage. The most common and valuable use for mortars is often harassment and interdiction fires. One of their greatest contributions is interdicting supplies, evacuation efforts, and reinforcement in the enemy rear just behind his forward defensive positions. During World War II and the recent Middle East conflicts, light mortar HE fires have been used extensively during urban combat to deny the use of streets, parks, and plazas to enemy personnel. Finally, mortars can be used, with some limitations, against light armor and structures. Effectively integrating mortar fires with dismounted maneuver is key to successful combat in an urban area.

b.   **Position Selection.** The selection of mortar positions depends on the size of buildings, the size of the urban area, and the mission. Rubble can be used to construct a parapet for firing positions. Positions are also selected to lessen counterbattery fire

(1) *Existing Structures and Masking.* The use of existing structures (for example, garages, office buildings, or highway overpasses) for positions is recommended to afford

the best protection and lessen the camouflage effort. Proper masking enhances survivability. If the mortar is fired in excess of 885 mils to clear a frontal mask, the enemy counterbattery threat is reduced. These principles are used in both the offense and the defense.

(2) *Placement.* Mortars are not usually placed on top of buildings because lack of cover and mask makes them vulnerable. They should not be placed inside buildings with damaged roofs unless the structure's stability has been checked. Overpressure can injure personnel, and the shock on the floor can weaken or collapse the structure.

c. **Communications.** Digital and analog communication transmissions in urban areas are likely to be erratic. Structures reduce radio ranges; however, remoting the antennas to upper floors or roofs may improve communications and enhance operator survivability. The use of radio retransmissions is another technique that may apply in urban areas. A practical solution is to use existing civilian systems to supplement the unit's capability, understanding that this is a non-secure method of communication. Hard wire communication may be the most suitable means of communication in an urban environment.

d. **Magnetic Interference.** In an urban environment, all magnetic instruments are affected by surrounding structural steel, electrical cables, and automobiles.

e. **High-Explosive Ammunition.** Mortar high-explosive fires are used more than any other type of indirect fire weapon during urban combat. Although mortar fires are often targeted against roads and other open areas, the natural dispersion of indirect fires will result in many hits on buildings. Leaders must use care when planning mortar fires during UO to minimize collateral damage.

(1) HE ammunition, especially the 120-mm projectile, gives good results when used against lightly built structures within cities. However, it does not perform well against reinforced concrete found in larger urban areas.

(2) When using HE ammunition in urban fighting, only point detonating fuzes should be used. The use of proximity fuzes should normally be avoided because the nature of urban areas causes proximity fuzes to function prematurely. Proximity fuzes, however, are useful in attacking some targets such as OPs on tops of buildings.

f. **Illumination.** In the offense, illuminating rounds are planned to burst above the objective. If the illumination were behind the objective, the enemy troops would be in the shadows rather than in the light. In the defense, illumination is planned to burst behind friendly troops to put them in the shadows and place the enemy troops in the light. Buildings reduce the effectiveness of the illumination by creating shadows. Continuous illumination requires close coordination between the FO and FDC to produce the proper effect by bringing the illumination over the defensive positions as the enemy troops approach the buildings (Figure 6-8, page 6-26).
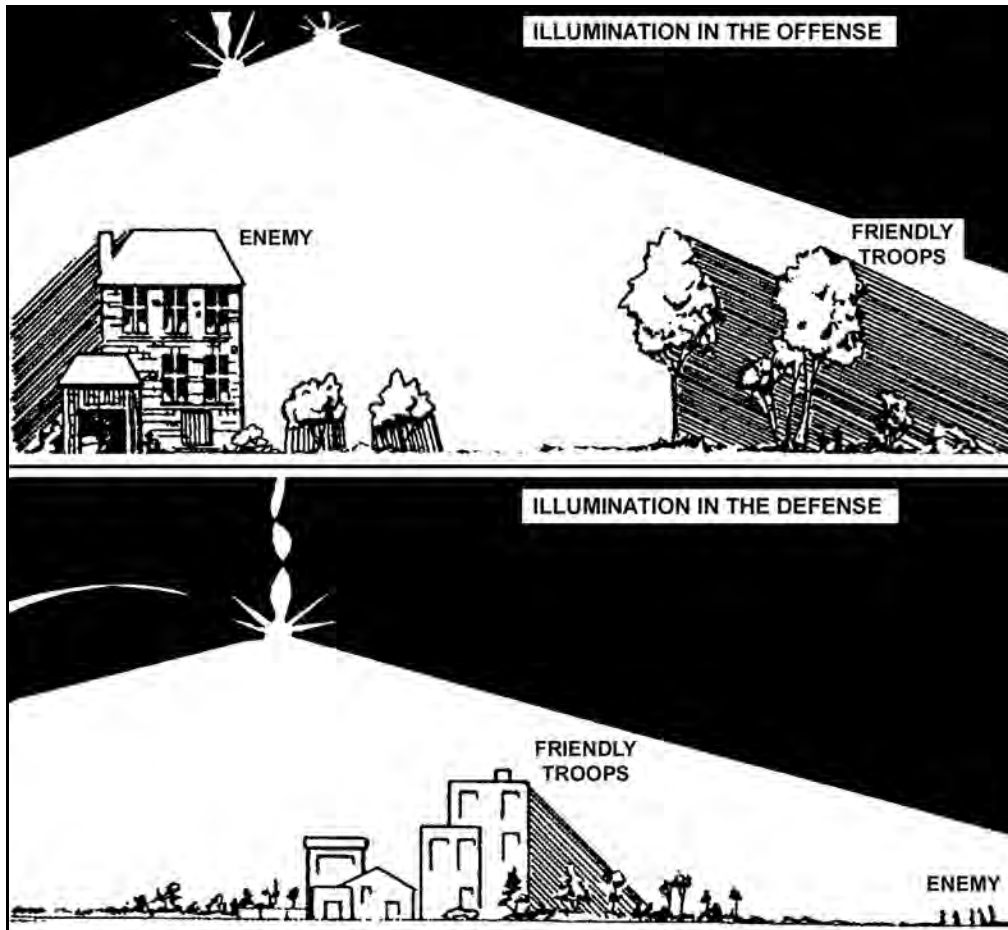
Figure 6-8. Illumination during urban operations.

g. **Special Considerations.** When planning the use of mortars, commanders must consider the following:

- Observer positioning.
- Ammunition effects to include white phosphorous and red phosphorous and the effects of obscurants.
- Dead space.
- Security for mortar crews.
- Displace of the mortars.

6-19. COMMUNICATIONS

One of the biggest challenges for a battalion staff is to maintain communications with subordinate elements. Buildings and electrical power lines reduce the range of digital and FM radios. Remoting radio sets or placing antennas on rooftops can solve the range problem for CPs and trains. Companies do not have the assets to ensure continuous communications, so the battalion staff must plan for continual movement of battalion assets to support company operations.

a. **Wire.** Wire is a secure and effective means of communications in urban areas. Wires should be laid underground, overhead on existing poles, or through buildings to prevent vehicles from cutting them.

b. **Messengers and Visual Signals.** Messengers and visual signals can also be used in urban areas. Messengers must plan routes that avoid the enemy. Routes and time schedules should be varied to avoid establishing a pattern. Visual signals must be planned so they can be seen from the buildings.

c. **Sound.** Sound signals are normally not effective in urban areas due to the amount of surrounding noise.

d. **Existing Systems.** If existing civilian or military communications facilities can be captured intact, they can also be used by the battalion. An operable civilian phone system, for instance, can provide a reliable, although nonsecure, means of communication. Use of news media channels in the immediate area of operations for other-than-emergency communications must also be coordinated through the S1 or civil affairs officer.

6-20. WEAPONS EFFECTS

The characteristics and nature of combat in urban areas affect the results and employment of weapons. Leaders at all levels must consider the following factors in various combinations.

a. **Surfaces.** Hard, smooth, flat surfaces are characteristic of urban targets. Rarely do rounds impact perpendicular to these flat surfaces but rather at some angle of obliquity. This reduces the effect of a round and increases the threat of ricochets.

b. **Ranges and Engagement Time.** Engagement times are short, and ranges are close in urban areas. About 90 percent of all targets are located 50 meters or less from the identifying soldier. Minimum arming ranges and troop safety from backblast or fragmentation effects must be considered.

c. **Depression and Elevation Limits.** Depression and elevation limits for some weapons create dead space. Tall buildings form deep canyons that are often safe from indirect fires. Some weapons can fire rounds to ricochet behind cover and inflict casualties. Target engagement from horizontal and vertical oblique angles demands superior marksmanship skills.

d. **Obscuration.** Smoke from burning buildings, dust from explosions, shadows from tall buildings, and the lack of light penetrating inner rooms combine to reduce visibility and increase a sense of isolation. Added to this is the masking of fires caused by rubble and manmade structures. Targets, even those at close range, tend to be indistinct.

e. **Confusion.** Urban fighting often becomes confused melees with several small units attacking on converging axes. The risks from friendly fires, ricochets, and fratricide must be considered during planning. Control measures must be continually adjusted to lower the risks. Soldiers and leaders must maintain a sense of situational understanding and clearly mark their progress IAW unit SOP to avoid fratricide. (See Appendix E, Risk Management and Fratricide Avoidance.)

f. **Buildings.** Both the shooter and target may be inside or outside the buildings. They may both be inside the same or separate buildings. The enclosed nature of combat in urban areas means the weapon's effect, such as muzzle blast or backblast and penetration from room to room, must be considered as well as the round's impact on the target. Usually, manmade structures must be attacked before enemy personnel inside are attacked. Weapons and demolitions may be chosen for employment based on their effects against masonry and concrete rather than against enemy personnel.

Section IV. OFFENSIVE OPERATIONS

Offensive operations in urban areas are based on offensive doctrine modified to conform to the urban terrain. Urban combat also imposes a number of demands that are different from other field conditions, such as combined arms integration, fires, maneuver, and use of special equipment. As with all offensive operations, the commander must retain his ability to fix the enemy and maneuver against him. Offensive UO normally have a slower pace and tempo than operations in other environments. Missions are more methodical. The battalion must be prepared to conduct different missions simultaneously. For example, a battalion may establish checkpoints in one section of a city and simultaneously clear enemy in another section.

> *"From 1942 to the present, shock units or special assault teams have been used by attackers (and often by defenders) with great success. These assault teams are characterized by integration of combined arms. Assault teams typically contain Infantry with variable combinations of armor, artillery, or engineers."*
>
> Technical Memorandum 5-87
> Modern Experience in City Combat
> US Army Human Engineering Laboratory
> March 1987

6-21. OFFENSIVE FRAMEWORK

Figure 6-9 depicts the urban operational framework as it applies to offensive operations and shows the tactical tasks of subordinate units. While the elements of the operational framework are not phases, tactical tasks may become phases at the battalion level and below, based on the factors of METT-TC. Properly planned and executed offensive operations involve all tactical tasks shown. They may be conducted simultaneously or sequentially, depending on the factors of METT-TC. During offensive operations, the SBCT commander's intent normally includes--

- Synchronizing precision fires, information operations, and nonlethal capabilities.
- Isolating decisive points to dominate the urban area.
- Using superior combat power to destroy high pay-off targets.
- Using close combat, when necessary, against decisive points.
- Transitioning quickly to stability or support operations.
- Detailed intelligence, surveillance, and reconnaissance plan to assess the situation.
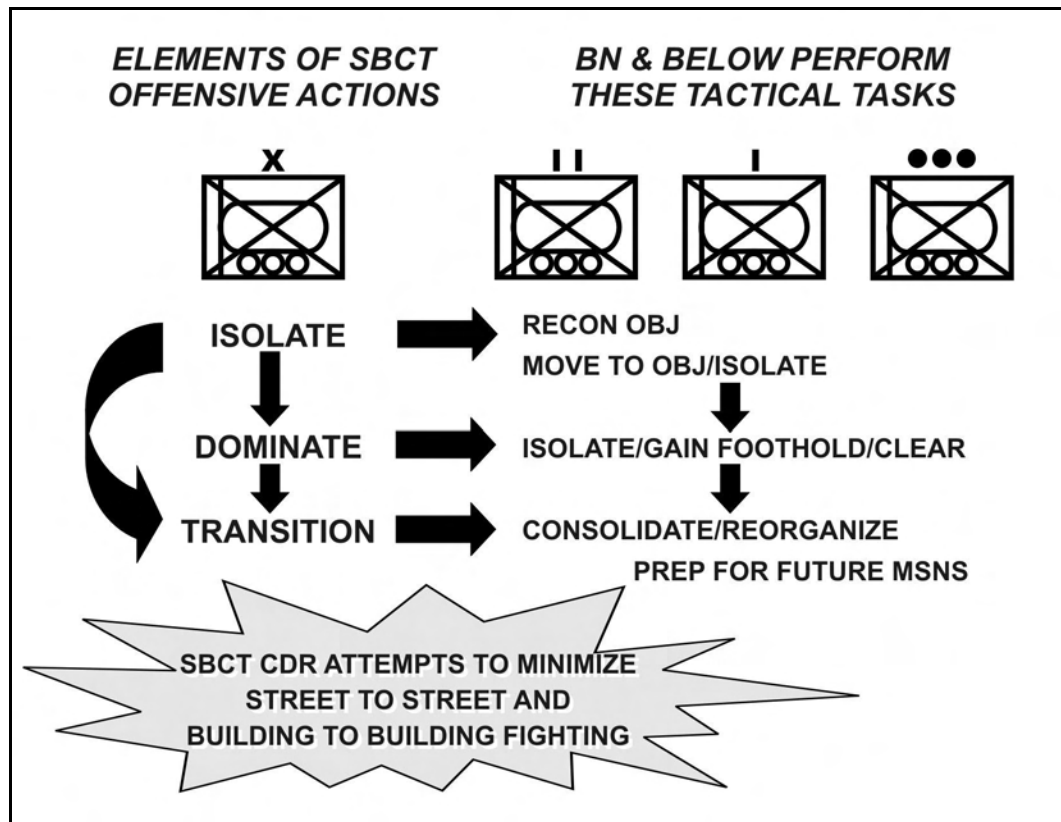
Figure 6-9. Offensive urban operational framework.

6-22.   TYPES OF OFFENSIVE OPERATIONS

Offensive operations in an urban area are planned and implemented based on the factors of METT-TC. At the battalion level, the offense takes the form of either a deliberate or hasty operation such as a movement to contact or attack. The battalion may also be given the mission to conduct special purpose attacks such as a raid, demonstration, spoiling attack, or counterattack.

a.   **Hasty Operations.** The battalions conduct hasty offensive operations after a successful defense or as part of a defense, as a result of a movement to contact, a meeting engagement, or a chance contact during a movement; or in a situation where the unit has the opportunity to attack vulnerable enemy forces. The attack in an urban area differs because the close, complex nature of the terrain makes command, control, and communications, as well as massing fires to suppress the enemy, more difficult. In urban areas, incomplete information, intelligence, and concealment may require the maneuver unit to move through, rather than around, the friendly unit fixing the enemy in place. Control and coordination become important to reduce congestion at the edges of the urban area.

b.   **Deliberate Operations.** A deliberate offensive operation is a fully synchronized operation that employs all available assets against the enemy's defense, IAW with the ROE. Deliberate operations are characterized by detailed planning based on available information, thorough reconnaissance, preparation, and rehearsals. Given the nature of urban terrain, the attack of an urban area is similar to the techniques employed in

assaulting a strongpoint. At the battalion level, an attack of an urban area usually involves the sequential execution of the following tactical tasks.

(1) ***Reconnoiter the Objective.*** This involves making a physical reconnaissance of the objective with battalion assets and those of higher headquarters, as the tactical situation permits. It also involves making a map reconnaissance of the objective and all the terrain that will affect the mission and an analysis of aerial imagery, photographs, or any other detailed information about the building(s) and other appropriate urban terrain. Additionally, any other information collected by reconnaissance and surveillance units, such as the battalion reconnaissance platoon and or snipers, should be considered during the planning process.

(2) ***Move to the Objective.*** This may involve moving through open terrain, urban terrain, or both. Movement should be made as rapidly as possible without sacrificing security. Movement should be made along covered and concealed routes and can involve moving through buildings, down streets, in subsurface areas, or a combination of all three.

(3) ***Isolate the Objective.*** Isolation begins with the efforts of special operations force (SOF) units controlled by higher headquarters to influence enemy and civilian actions. The battalion commander should consider using PSYOP teams, if available, to broadcast appropriate messages to the enemy and to deliver leaflets directing the civilian population to move to a designated safe area.

(a) In certain situations requiring precise fire, snipers can provide an excellent method of isolating key areas while simultaneously minimizing collateral damage and noncombatant casualties. (See Appendix C, Sniper Employment.)

(b) Isolating the objective also involves seizing terrain that dominates the area so that the enemy cannot supply, reinforce, or withdraw its defenders. It also includes selecting terrain that provides the ability to place suppressive fire on the objective. Battalions may be required to isolate an objective as part of the overall SBCT operation or to do so independently. Depending on the tactical situation, companies within the battalion may have to isolate an objective by infiltration.

(4) ***Secure a Foothold.*** Securing a foothold involves seizing an intermediate objective that provides cover from enemy fire and a location for attacking troops to enter the urban area. The size of the foothold depends on the factors of METT-TC.

(a) As a company attacks to gain a foothold, it should be supported by suppressive fires and smoke. In the example shown in Figure 6-10, the center battalion conducts a supporting attack to seize OBJ DOG. (The battalion commander has determined that two intermediate objectives are necessary in order to seize OBJ DOG.)

(b) One company secures a foothold in OBJ Y. As a follow-on mission, the same company either seizes OBJ Z and supports the battalion main effort by fire or facilitates the passage of another company through OBJ Y to seize OBJ Z and support the battalion main effort by fire.
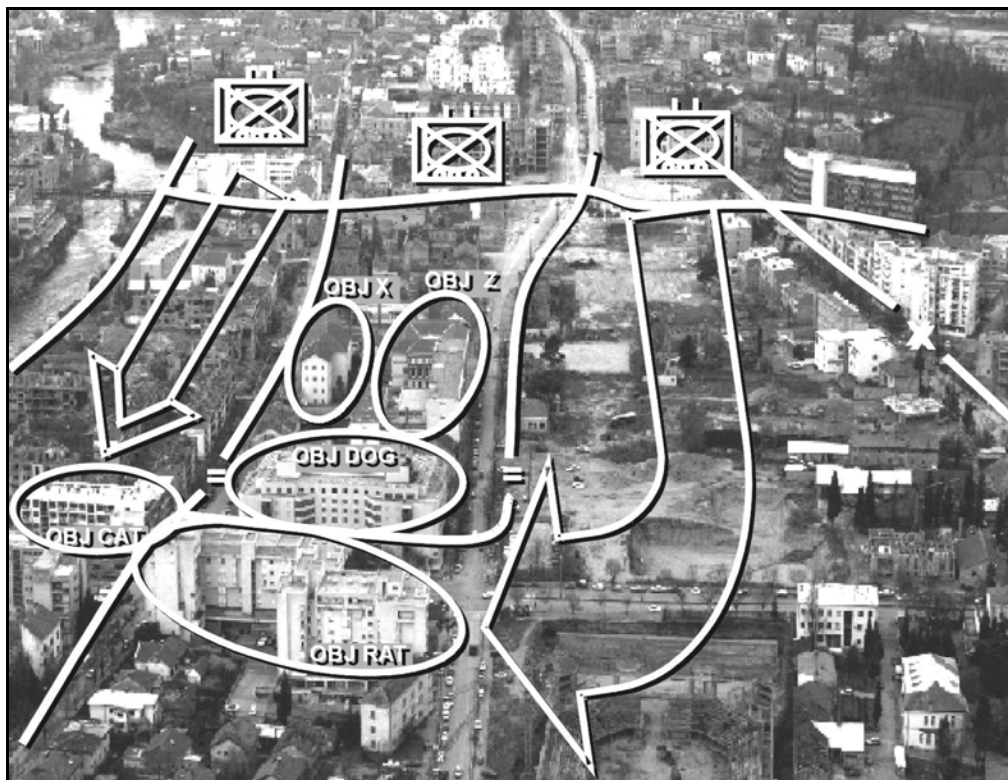
Figure 6-10. Securing a foothold, battalion attack.

(5) *Clear an Urban Area.* The commander may decide to selectively clear only those parts necessary for the success of his mission if--

- An objective must be seized quickly.
- Enemy resistance is light or fragmented.
- The buildings in the area have large open areas between them. (In this case, the commander clears only those buildings along the approach to his objective or only those buildings necessary for security.)

The mission may require the battalion to systematically clear an area of all enemy. Through detailed analysis, the battalion commander may anticipate that he will be opposed by a strong, organized resistance or will be in areas having strongly constructed buildings close together. He may assign his company zones within the battalion zone or AO in order to conduct systematic clearing (Figure 6-11, page 6-32).
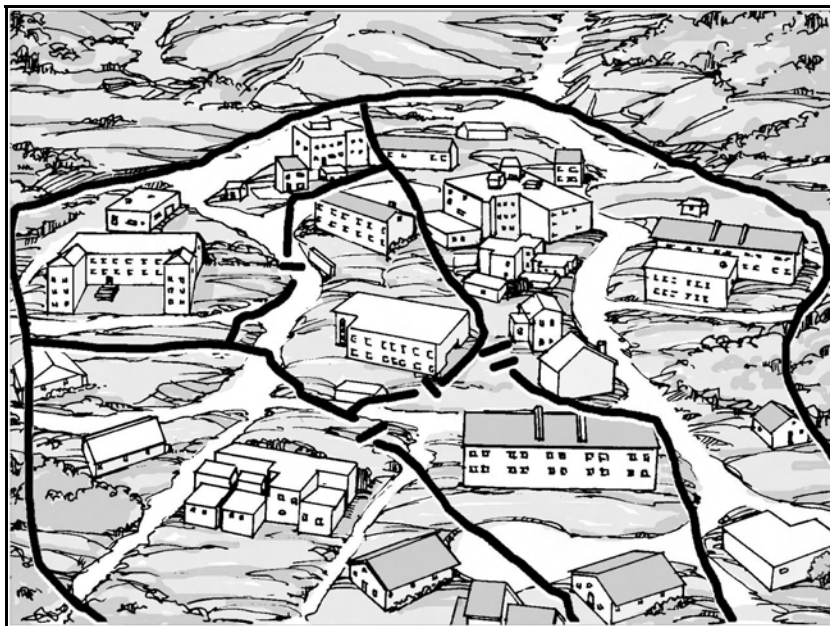
Figure 6-11. Systematic clearance within assigned areas.

(6) *Consolidate or Reorganize and Prepare for Future Missions.* Consolidation occurs immediately after each action. Reorganization and preparation for future missions occurs after consolidation. Many of these actions occur simultaneously.

(a) Consolidation provides security, facilitates reorganization, and allows the battalion to prepare for counterattack. Rapid consolidation after an engagement is extremely important in an urban environment.

(b) Reorganization actions (many occurring simultaneously) prepare the unit to continue the mission. The battalion prepares to continue the attack or prepares for future missions, including the possible transition to stability and support operations.

NOTE: FBCB2 assets significantly improve friendly force situational understanding in digitally equipped units.

(c) Medical treatment in urban operations does not change; however, there are differences for evacuation and a greater reliance on self-aid and buddy aid and combat lifesavers. Casualty evacuation in an urban environment presents many challenges in the location, acquisition, and evacuation of patients. Techniques may require modification to acquire and evacuate casualties from above, below, and at ground level. Further, during UO, the environment (rubble and debris) may dictate that evacuation be accomplished by litter carriers rather than by vehicle or aircraft. Commanders should be prepared for evacuation from within buildings and for the possibility that medical evacuation by Army air may not be available due to the fragility of the aircraft and their susceptibility to small arms fire. Treatment facilities may have to be moved much farther forward than usual. Units need specific medical policies, directives, and SOPs for dealing with noncombatants.

6-23. CORDON AND ATTACK

Cordon and attack is a tactical task given to a battalion to prevent withdrawal from or reinforcement of a position. A cordon is a type of isolation. It implies seizing or controlling key terrain or mounted and dismounted avenues of approach. Figure 6-12 depicts an SBCT attacking to seize and clear OBJ EAGLE using the cordon and attack technique. Skillful application of fires and other combat multipliers may also defeat the enemy and preclude close combat. In the example shown in Figure 6-12, the battle positions are oriented to place fires on the enemy leaving OBJ EAGLE and to prevent his withdrawal from the objective area. The factors of METT-TC determine the mission end state and how the battle positions are oriented. Additional direct fire control measures, such as target reference points and engagement areas and indirect fire control measures can focus fires and assist in canalizing the enemy into desired areas.
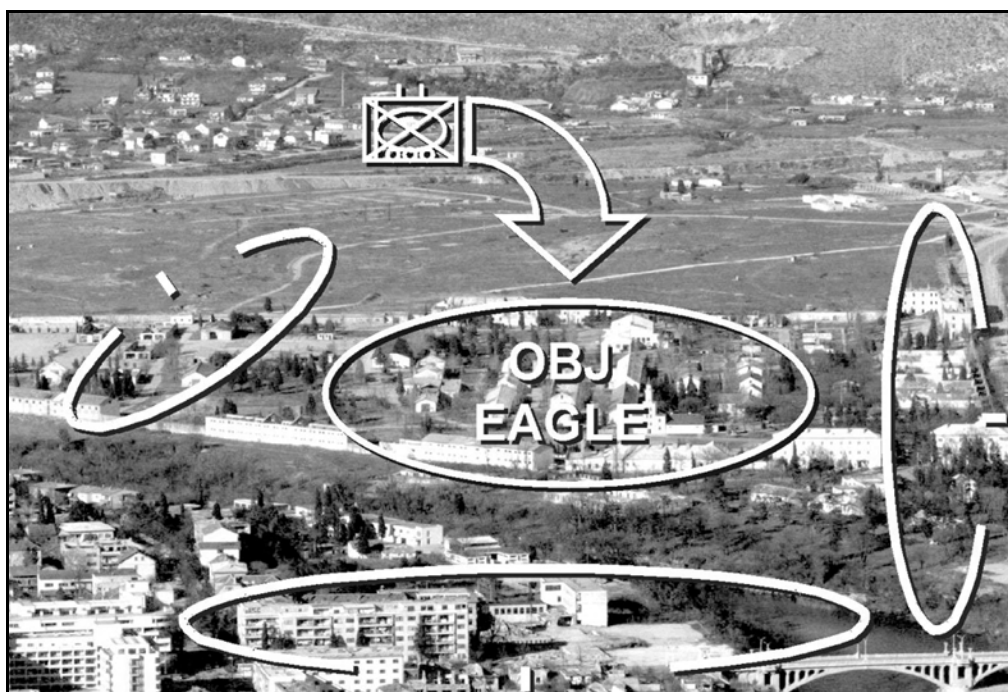
Figure 6-12. Isolation of an urban area by an SBCT infantry battalion using the cordon and attack technique.

6-24. TRANSITION

During transition, the battalion continues to use all CS and CSS assets consistent with the mission end state and ROE to move from offensive operations to stability or support operations. The ultimate goal is to return the urban area to civilian control. During this step, the roles and use of SOF, CS, and CSS units (civil affairs, PSYOP, medical, and military police) become more important with the requirements to maintain order and stabilize the urban area. These assets normally support the battalion's transition efforts under SBCT control. The battalion staff, in coordination with the SBCT staff, must prepare to transition from being a "supported" force to being the "supporting" force.

6-25. MOVEMENT TO CONTACT

Figure 6-13 depicts a movement to contact in an urban area using the search and attack technique. The battalion uses this technique when the battalion commander does not have adequate information and a clear vision of the enemy situation and the information cannot be gathered by SBCT or higher echelon elements. The battalion normally employs this technique against a known weak enemy force that is disorganized and incapable of massing strength (for example, urban insurgents or gangs). The battalion divides its portion of the AO into smaller areas and coordinates the movement of companies. It can either assign sectors to specific companies or control their movement by sequential or alternate bounds within the battalion sector. In the example shown in Figure 6-13, companies would find, fix, and finish the enemy, or they would find and fix the enemy and the battalion would assign another company the task of finishing the enemy (sequential or alternate bounds). During a mission of this type, the urban environment makes finding, fixing, and finishing the enemy difficult for conventional infantry forces. For example, movement of units may become canalized due to streets and urban "canyons" created by tall buildings. The application of firepower may become highly restricted based on the ROE. The use of HUMINT in this type of action becomes increasingly more important and can be of great assistance during the "find" portion of the mission. This mission requires close coordination between dismounted infantry, MGSs, and ICVs as they move through and search the urban area.
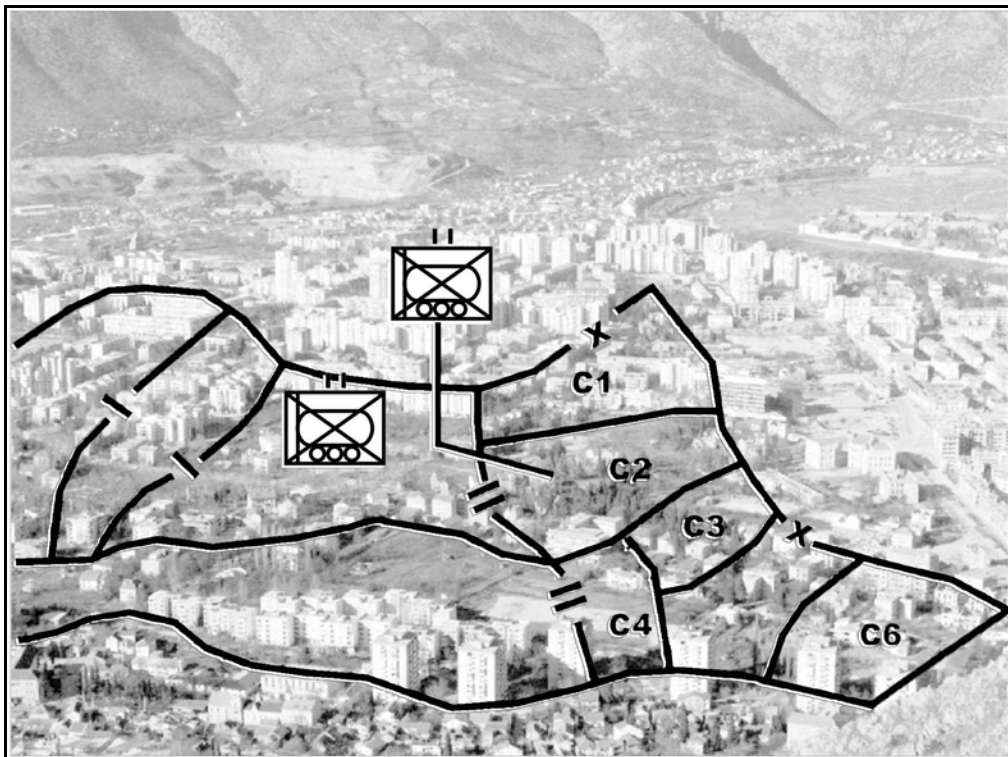
Figure 6-13. Search and attack technique.

6-26. INFILTRATION

The following is an example that describes the actions of an SBCT infantry battalion conducting an infiltration with engineers attached.

a. The outskirts of a town may not be strongly defended. Its defenders may have only a series of antiarmor positions, security elements on the principal approach, or positions blocking the approaches to key features in the town. The strongpoints and reserves are normally deeper in the city.

b. A battalion may be able to seize a part of the town by infiltrating platoons and companies between those enemy positions on the outskirts. Moving by stealth on secondary streets using the cover and concealment of back alleys and buildings, the battalion may be able to seize key street junctions or terrain features, to isolate enemy positions, and to help following units pass into the urban area. Such an infiltration should be performed when visibility is poor and no civilians are in the area.

c. The infantry battalion is organized into infiltration companies with engineers and a reserve consistent with METT-TC. Each company should have an infiltration lane that allows stealthy infiltration by company-size or smaller units. Depending on the construction of the urban area and streets, the infiltration lane may be 500 to 1,500 meters wide.

d. The infiltrating companies advance on foot, with stealth, using available cover and concealment. Mortar and artillery fire can be used to divert the enemy's attention and cover the sound of infiltrating troops.

e. Armored vehicles and antiarmor weapons are positioned to cover likely avenues of approach for enemy armored vehicles. The battalion commander may position attached antiarmor units to cover the likely avenues of approach. The reconnaissance platoon, antiarmor units, and MGSs screen the battalion's most vulnerable flanks. In addition, the antiarmor units can support by fire if the situation provides adequate support by fire positions.

f. As the companies move into the built-up area, they secure their own flanks. Security elements may be dropped off along the route to warn of a flank attack. Engineers assist in breaching or bypassing minefields or obstacles. Enemy positions are avoided but reported.

g. The infiltrating companies proceed until they reach their objective. At that time they consolidate, reorganize, and arrange for mutual support. They patrol to their front and flanks and establish contact with each other. The company commander may establish a limit of advance to reduce chances of enemy contact or to ensure safety from friendly forces.

h. If the infiltration places the enemy in an untenable position and he must withdraw, the rest of the battalion is brought forward for the next phase of the operation. If the enemy does not withdraw, the battalion must clear the urban area before the next phase of the operation. If the enemy counterattacks, the battalion may establish a hasty defense (Figure 6-14, page 6-36).
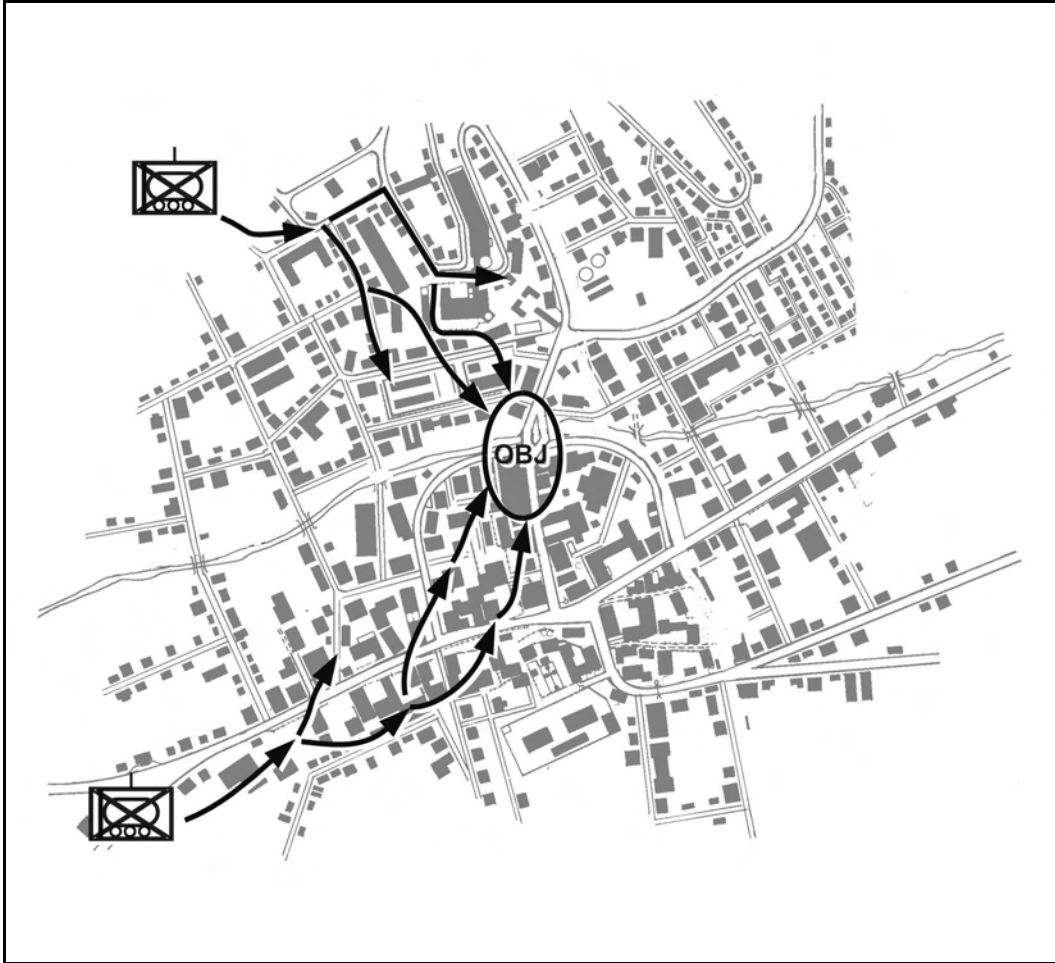
Figure 6-14. Infiltration.

6-27. ATTACK OF A VILLAGE

The battalion may have to conduct either a hasty or deliberate attack of a village that is partially or completely surrounded by open terrain (Figure 6-15). After considering the factors of METT-TC, the battalion performs these tactical tasks:

- Reconnoiter the objective.
- Move to the objective.
- Isolate the objective.
- Secure a foothold.
- Clear the objective.
- Consolidate, reorganize, and prepare for future missions.
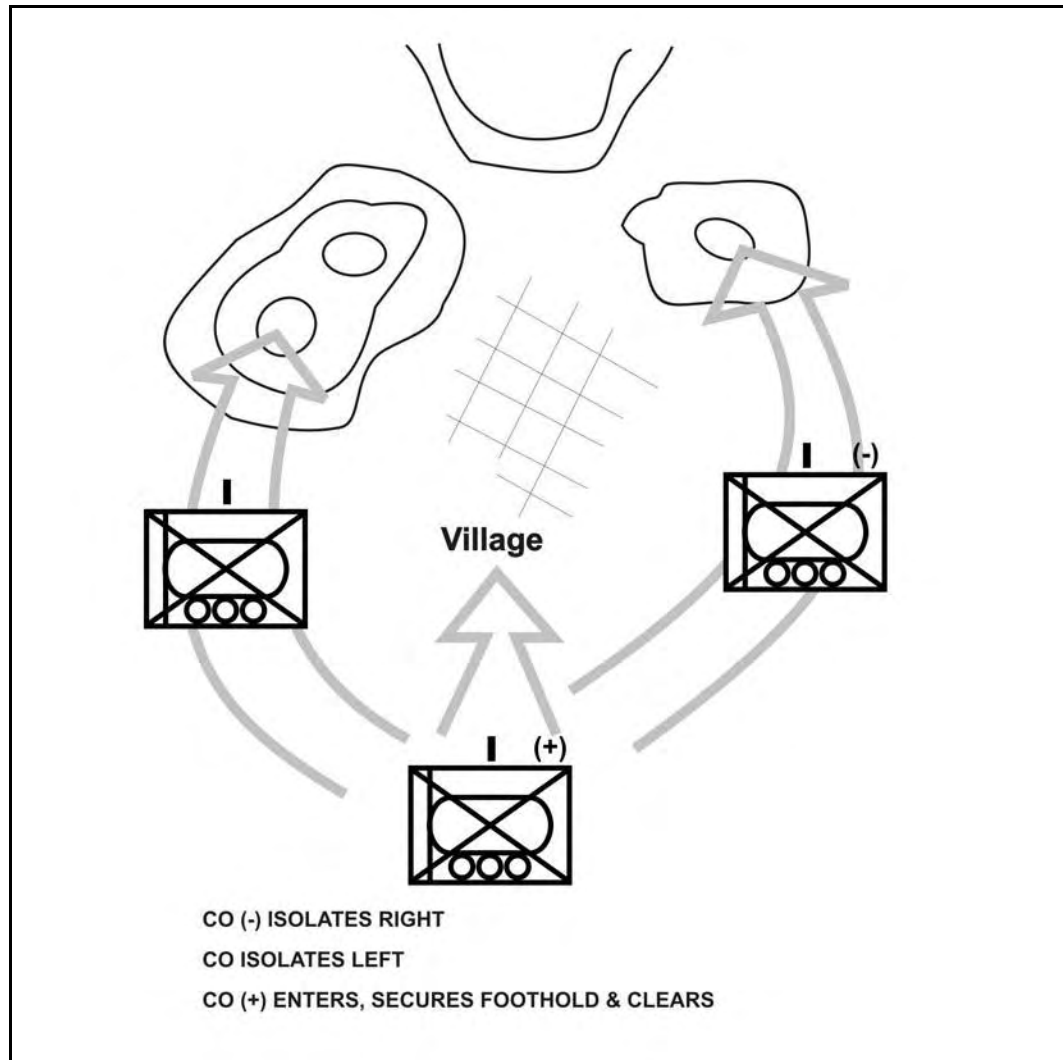
Figure 6-15. Attack of a village.

6-28. NODAL ATTACK
The battalion may receive the mission to seize a key node (or nodes) as part of the SBCT operation. In certain situations, the battalion may have to seize nodes independently. Nodal attacks are characterized by rapid attacks followed by defensive operations. The enemy situation must permit the attacking force to divide its forces and seize key nodes. Multiple attacks, as depicted in Figures 6-16 and 6-17, page 6-38, require precise maneuver and supporting fires. The battalion may receive a nodal attack mission before an anticipated stability or support operation or when isolation of an urban area is required so other units can conduct offensive operations inside the urban area. Figure 6-16, page 6-38, depicts an SBCT conducting multiple nodal attacks. Figure 6-17, page 6-38, depicts a battalion executing a nodal attack. Nodal attacks are used to deny the enemy key infrastructure. They may require a designated rapid response element (or elements) in reserve in the event that enemy forces mass and quickly overwhelm an attacking battalion. Normally, the reserve is planned at SBCT level. Battalions executing a nodal

attack independently must plan for a designated rapid response reserve element. The duration of this attack should not exceed the battalion's self-sustainment capability.
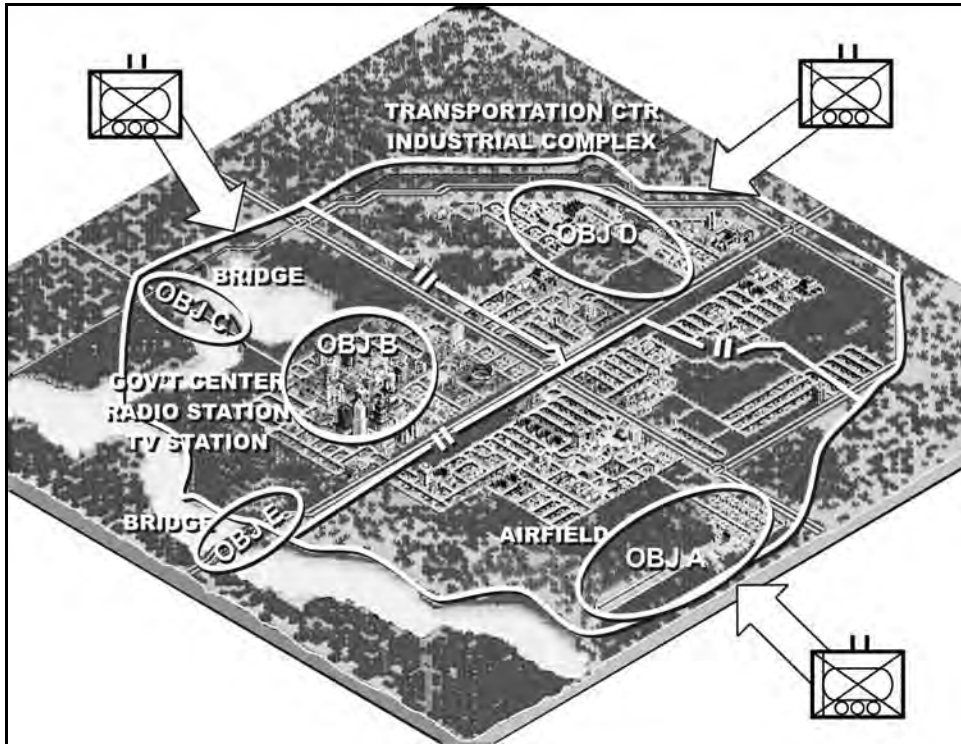
Figure 6-16. SBCT scheme of maneuver, nodal attack.
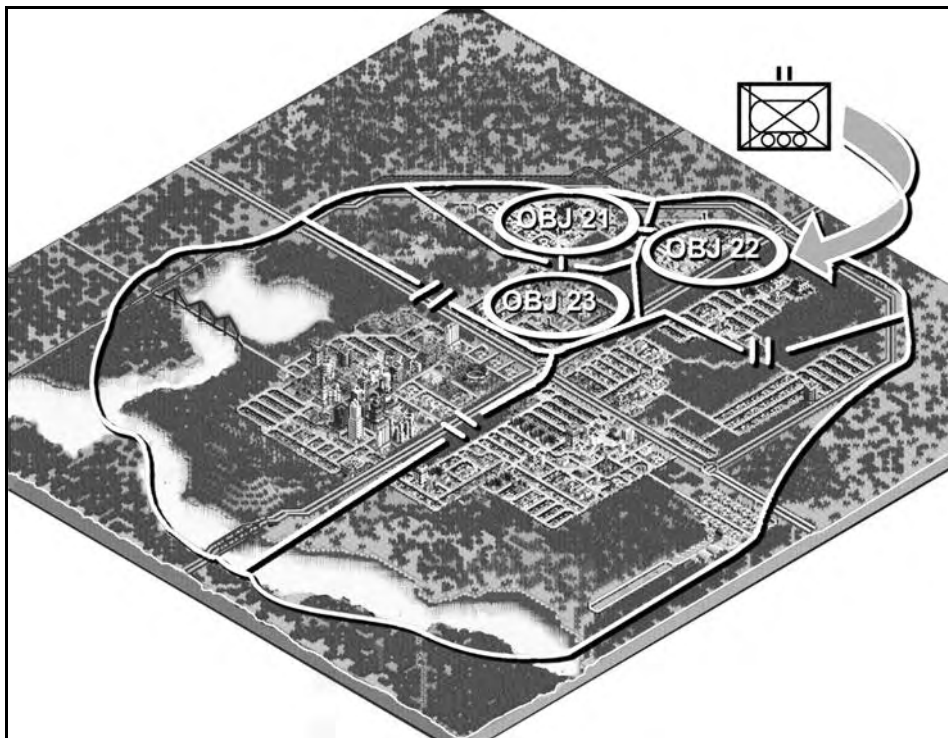
Figure 6-17. Battalion nodal attack.*

Section V. DEFENSIVE OPERATIONS

An area defense concentrates on denying an enemy force access to designated terrain for a specific time and is the type of defense most often used for defending an urban area. The mobile defense concentrates on the destruction or defeat of the enemy through a decisive counterattack. A division or corps most frequently conducts a mobile defense, but the SBCT is also capable of conducting a mobile defense. The SBCT infantry battalion participates in mobile defenses as an element in the fixing force conducting a delay or area defense or as an element of the striking force conducting offensive operations. In an urban area, the defender must take advantage of the abundant cover and concealment. He must also consider restrictions to the attacker's ability to maneuver and observe. By using the terrain and fighting from well-prepared and mutually supporting positions, a defending force can inflict heavy losses upon, delay, block, or fix a much larger attacking force.

6-29. DEFENSIVE FRAMEWORK

Normally, the battalion conducts defensive operations as part of the SBCT. The SBCT can conduct the full range of defensive operations within a single urban area or in an AO that contains several small towns and cities using the elements of the urban operational framework shown in Figure 6-18, page 6-40. The SBCT avoids being isolated through its security operations. It assigns defensive missions to subordinate battalions in order to achieve the commander's intent and desired end state. Well-planned and executed defensive operations have four elements: assess, shape, dominate, and transition. During defensive operations, the SBCT commander seeks to--

- Avoid being isolated by the enemy.
- Defend key and decisive terrain, institutions, or infrastructure.
- Use offensive fire and maneuver to retain the initiative.

Battalions conduct defensive operations by conducting counterreconnaissance missions and patrols (avoiding isolation); assigning battle positions or sectors to companies (defending); and consolidating or reorganizing and preparing for follow-on missions (transitioning).
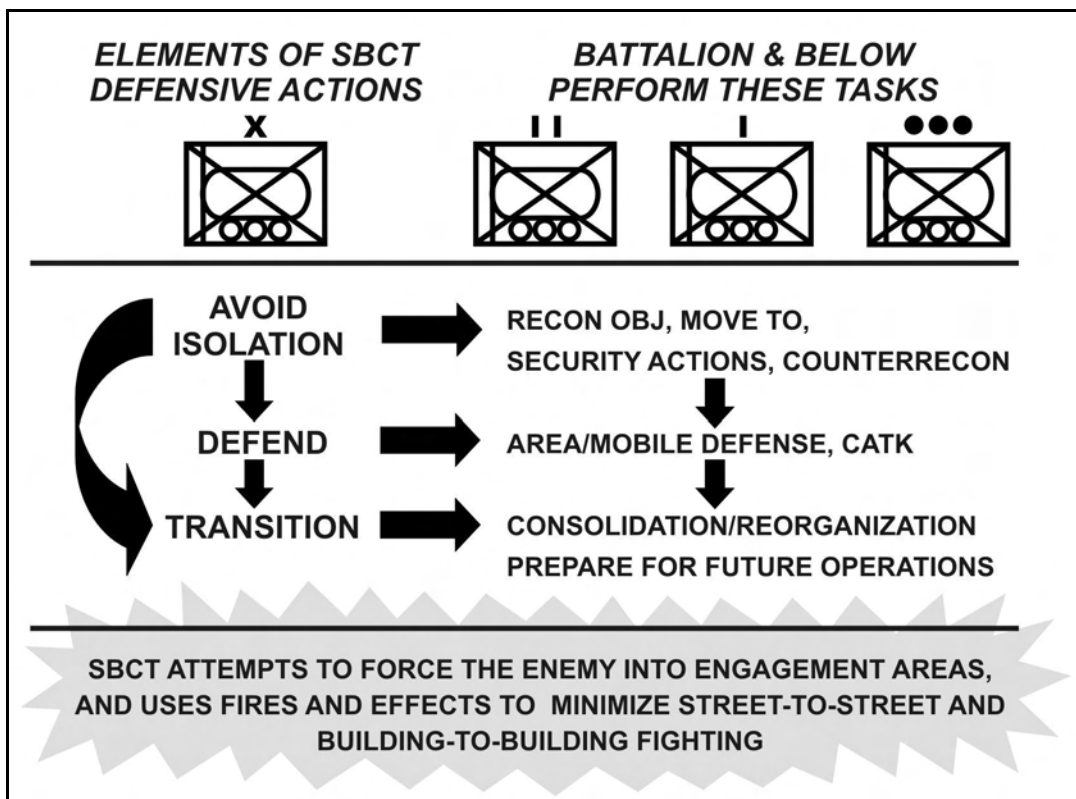
Figure 6-18. Defensive urban operational framework.

6-30. DEFENSIVE PLANNING

Battalions defending in urban areas must prepare their positions for all-round defense. Subordinate units must employ aggressive security operations that include surveillance of surface and subsurface approaches. Battalions must constantly patrol and use OPs and sensors to maintain effective security. They must take special measures to control enemy combatants who have intermixed with the local population and civilian personnel who may support the enemy.

a. Defensive fire support in urban operations must take advantage of the impact of indirect fires on the enemy before he enters the protection of the urban area. Fire support officers at all levels must coordinate and rehearse contingencies that are inherent to nonlinear fire support coordination measures and clearance of fires. Civil affairs and PSYOP assets should be coordinated with the appropriate command and control warfare or information operations headquarters.

b. In planning a defense in an urban area, the battalion staff must identify the following:

- Positions and areas that must be controlled to prevent enemy infiltration.
- Sufficient covered and concealed routes for movement and repositioning of forces.
- Structures and areas that dominate the urban area.
- Areas, such as parks and broad streets, that provide fields of fire for tanks and antiarmor weapons.
- Areas to position artillery assets.

- C2 locations.
- Protected areas for CSS activities.
- Engagement areas to include employment and integration of obstacles with direct and indirect fires.
- Sniper engagement criteria. (See Appendix C, Sniper Employment.)
- Suitable structures that are defensible and provide protection for defenders.
- Contingency plans in the event that the battalion must conduct breakout operations.
- Plans for rapid reinforcement.

6-31. INTEGRATING THE URBAN AREA INTO THE DEFENSE

The battalion may integrate villages, strip areas, and small towns into the overall defense, based on higher headquarters' constraints and applicable ROE (Figure 6-19). A defense in an urban area, or one that incorporates urban areas, normally follows the same sequence of actions and is governed by the principles contained in Chapter 5. When defending predominately urban areas, the battalion commander must consider that the terrain is more restricted due to buildings that are normally close together. This usually requires a higher density of troops and smaller company sectors or battle positions than in open terrain.
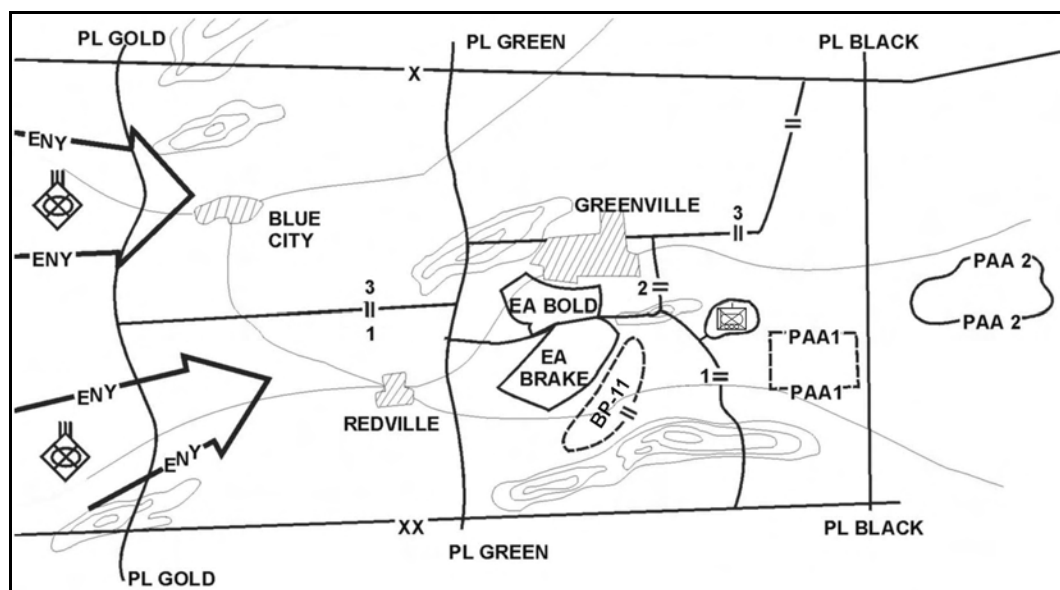
Figure 6-19. Integrating urban areas into a defense.

6-32. NODAL DEFENSE

Figure 6-20, page 6-42, depicts a transitional situation where the battalion moves from an offensive to a defensive operation. The SBCT mission may contain factors that require varying defensive techniques by the subordinate battalions under SBCT control. Figure 6-21 depicts a nodal defense where battalions employ different defensive techniques in order to achieve the SBCT commander's desired end state. The SBCT commander's intent is to safeguard the key nodes seized during the offensive operation in order eventually to return the infrastructure of this particular urban area back to civilian control.

A combination of sectors, battle positions, strongpoints, roadblocks, checkpoints, security patrols, and OPs could be employed within the battalion sector or AO. Figure 6-21, page 6-43, depicts the changed battalion task organizations, the extended boundaries, and the directed OPs.
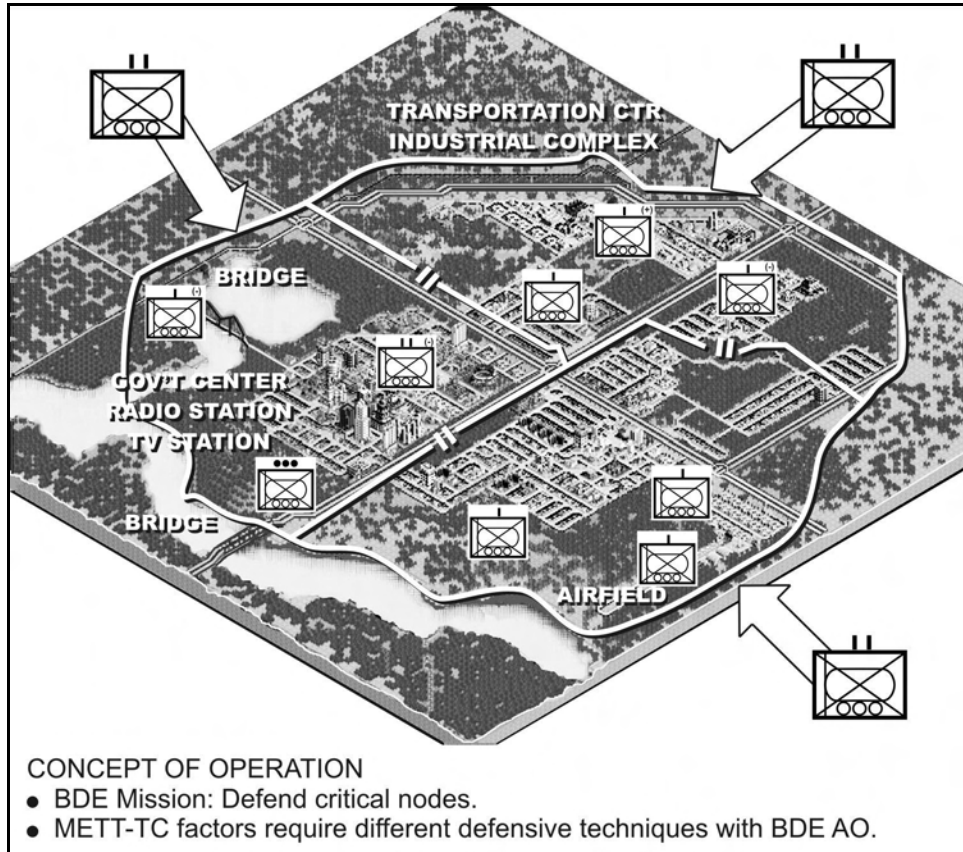
Figure 6-20. Nodal defense, transitional situation.
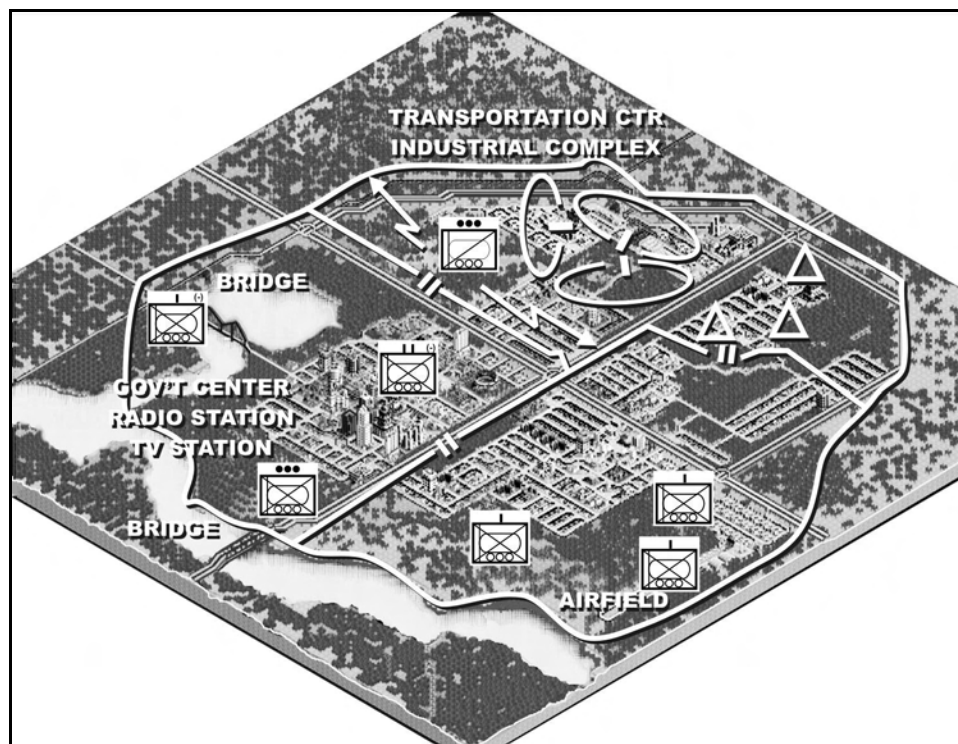
Figure 6-21. Nodal defense, different defensive techniques.

a. **Task Organization.** Companies may have to be task-organized to conduct the specific missions assigned by the battalion commander in a nodal defense.

b. **Symmetrical and Asymmetrical Threats.** The battalion is likely to respond to both symmetrical and asymmetrical threats within the area of operations. The defensive techniques chosen by subordinate companies should allow them to respond to the specific threats in their respective AOs, battle positions, or sectors.

c. **Boundary Changes.** Again, based on the battalion commander's intent and the defensive scheme of maneuver, boundary changes may be required in order to give companies more or less maneuver space.

d. **ROE Modification.** The ROE may require modification based on the type of mission to be conducted. The ROE may become more or less restrictive based on METT-TC factors. Commanders and leaders must ensure that the ROE are clearly stated and widely disseminated at the beginning and conclusion of each day.

6-33. DELAY

The purpose of a delay is to slow the enemy, cause enemy casualties, and stop the enemy (where possible) without becoming decisively engaged or bypassed. The delay can be oriented either on the enemy or on specified terrain such as a key building or manufacturing complex.

a. **Ambushes and Battle Positions.** The battalion conducts a delay in an urban area from a succession of ambushes and battle positions (Figure 6-22, page 6-44). The width of the battalion zone depends on the amount of force available to control the area, the nature of the buildings and obstacles along the street, and the length of time that the enemy must be delayed.

(1) *Ambushes.* The battalion plans ambushes on overwatching obstacles. Ambushes are closely coordinated but executed at the lowest levels. The deployment of the battalion is realigned at important cross streets. The battalion can combine ambushes with limited objective attacks on the enemy's flanks, employing MGSs and ICVs along with dismounted infantry. These are usually effective at the edge of open spaces (parks, wide streets, and so forth).

(2) *Battle Positions.* The battalion should place battle positions where heavy weapons, such as MGSs, ICVs, antiarmor weapons, and machine guns, have the best fields of fire. Such locations are normally found at major street intersections, in parks, and at the edge of open residential areas. The battalion should prepare battle positions carefully and deliberately, reinforce them with obstacles and demolished buildings, and support them using artillery and mortars. The battalion should position BPs to inflict maximum casualties on the enemy and cause him to deploy for a deliberate attack.

b. **Two Delaying Echelons.** The battalion is most effective when deployed in two delaying echelons that alternate between conducting ambushes and fighting from battle positions. As the enemy threatens to overrun a battle position, the company disengages and delays back toward the next battle position. As the company passes through the company to the rear, it establishes another battle position. The battalion uses smoke and demolitions to aid in the disengagement. Security elements on the flank can help prevent the enemy from out-flanking the delaying force. A small reserve can react to unexpected enemy action and conduct continued attacks on the enemy's flank.

c. **Engineers.** The engineer effort should be centralized to support the preparation of battle positions at first, then decentralized to support the force committed to ambush.

Figure 6-22. Battalion delay in an urban area.

CHAPTER 7
TACTICAL ENABLING OPERATIONS

Tactical enabling operations are specialized missions planned and conducted to achieve or sustain a tactical advantage and executed as part of an offensive, defensive, stability, or support mission. The fluid nature of the modern battlefield increases the frequency with which the infantry battalion must plan and execute enabling operations such as passage of lines, relief operations, obstacle reduction, linkup operations, and high-value asset security. At the battalion level, the C2 INFOSYS facilitate the planning and execution process of these often complex and decentralized operations. This chapter establishes techniques and procedures unique to the battalion that can be applied to these specialized missions.

Section I. SECURITY OPERATIONS

Security operations are those operations undertaken by a commander to provide early and accurate warning of enemy operations, to provide the force being protected with time and maneuver space within which to react to the enemy, and to develop the situation to allow the commander to effectively use the protected force (FM 3-0).

"Skepticism is the mother of security. Even though fools trust their enemies, prudent persons do not. The general is the principal sentinel of his army. He should always be careful of its preservation and see that it is never exposed to misfortune."

--Frederick the Great

7-1. PURPOSE

Security operations provide reaction time, maneuver space, and protection of the force. They are characterized by aggressive reconnaissance aimed at reducing terrain and enemy unknowns, gaining and maintaining contact with the enemy to ensure continuous information, and providing early and accurate reporting of information to the protected force. Units may conduct these operations to the front, flanks, or rear of a larger force. Security operations forces orient in any direction from a stationary or moving force. Security operations pertain to any attempt to use aggressive attack and defeat of enemy reconnaissance units to deny the enemy intelligence information concerning the battalion. Security operations contain both passive and active elements and normally include combat action to seek, destroy, or repel enemy reconnaissance units.

7-2. FORMS OF SECURITY OPERATIONS

There are five forms of security operations: screen, guard, cover, area security, and local security.

- *Screen* is a form of security operation that primarily provides early warning to the protected force.
- *Guard* is a form of security operation whose primary task is to protect the main body by fighting to gain time while also observing and reporting information and preventing enemy ground observation of and direct fire

against the main body. Units conducting a guard mission cannot operate independently because they rely upon fires and combat support assets of the main body.

- *Cover* is a form of security operations whose primary task is to protect the main body by fighting to gain time while also observing and reporting information and preventing enemy ground observation of and direct fire against the main body.
- *Area security* is a form of security operation conducted to protect friendly forces, installations, routes, and actions within a specific area.
- *Local security* consists of low-level security operations conducted near a unit to prevent surprise by the enemy.

The battalion normally participates in covering force operations only as part of a larger element. The screen, guard, and cover, respectively, require increasing levels of combat power and provide increasing levels of security for the main body. However, more combat power in the security force means less for the main body. Area security preserves the commander's freedom to move his reserves, position fire support means, provide for command and control, and conduct sustaining operations. Local security provides immediate protection to his force.

7-3. SCREEN

The primary task of a screening force is to observe, identify, and report information. The screening force protects the main body, impedes and harasses the enemy with supporting indirect fires, and destroys enemy reconnaissance elements within its capability.

a. **Battalion Screen.** At battalion level, the reconnaissance platoon normally performs screen missions. When the terrain provides multiple enemy avenues of approach, the battalion commander may attach the reconnaissance platoon to a company to conduct a screen. The screening force generally establishes a series of OPs and conducts patrols to ensure adequate surveillance of the assigned sector.

b. **Company Screen.** A company may be directed to conduct a screen in support of offensive and defensive operations. When given a forward screen mission, the company moves as in a movement to contact.

c. **Planning a Screen.** When assigning a screen mission to a company, the battalion commander designates the general trace of the screen and the time it must be established. The initial screen line should be forward of the general trace but remain within range of supporting artillery. Screen lines are depicted as phase lines. Passage graphics are included in the overlay.

(1) Designate the left and right limits of the screen as well as a phase line for the near boundary. This phase line can also become the on-order battle handover line.

(2) 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 sectors behind the screen.

(3) Designate general locations for OPs enabling observation of the avenues of approach into the sector.

(4) Select routes or sectors to facilitate rearward displacement.

(5) Augment the security force as needed to provide intelligence, engineer, air defense, signal, and combat service support.

d. **Intelligence Support.** The S2 designates which named areas of interest the company must observe and when. The S2 does not dictate the location of company elements, nor how the company maintains surveillance of the NAI. If GSRs or UAVs operate under battalion control to support the security effort, the S2 positions these assets and integrates their locations and missions with the security action of the screening company. Once the screen force commander positions his unit, he informs the S2 of their primary, alternate, and subsequent locations.

e. **Maneuver.** Generally, the best unit configuration for the screen mission is a task-organized SBCT infantry company. The ability to place infantry squads on the ground and conduct surveillance operations and active patrolling is an essential passive aspect of the screen mission. The MGS platoon may be employed to destroy the enemy's reconnaissance vehicles during the counterreconnaissance fight.

f. **Fire Support.** The FSO prepares for the screen mission as he would for a defense. He uses the enemy situation template as a guide to plan fires to interdict enemy maneuver elements. He plans protective fires for all screen force positions, which helps prevent screening force elements from becoming decisively engaged with the enemy. Accurate indirect fire is essential to the destruction of the enemy reconnaissance effort. The FSO conducts a time-distance analysis covering the enemy's probable rate of advance and the time of flight of artillery or mortars. If available, COLT teams may be added to the screen force for use against enemy vehicles.

g. **Engineer Support.** Generally, the engineer effort is dedicated to the battalion's main defensive area. If available, some engineer effort may be dedicated to the forward screen. The obstacle plan should not be severe enough to alter enemy movement significantly prior to the enemy's becoming engaged by forces in the MBA. The screening forces emplace obstacles to disrupt the enemy reconnaissance forces and fixing forces. Point-type obstacles (11 row wire, point AT minefields, modular pack mine systems [MOPMS], and Hornet) along restrictive portions of the enemy's avenues of approach are examples of obstacles that may be bypassed yet covered by direct and indirect fires.

h. **Logistics.** The logistics planner must plan for responsive and flexible support that may require the immediate resupply of ammunition and evacuation of casualties and equipment upon contact. Lateral supply routes to each battle position are identified during the planning process. Moreover, on-order control measures, LRPs, UMCPs, and AXPs are essential to the operation. Emergency resupply vehicles carrying ammunition and other quickly expendable supplies, plus refuelers, are prepared to respond to sudden requisitions due to enemy contact. Once the battalion begins the fight, evacuation of wounded personnel and damaged equipment occurs along lateral supply routes.

7-4. GUARD

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 both 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 his unit provides the larger unit. This is critical because as the battle progresses, the higher unit commander may require the degree of security to change, such as 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 (Figure 7-1).
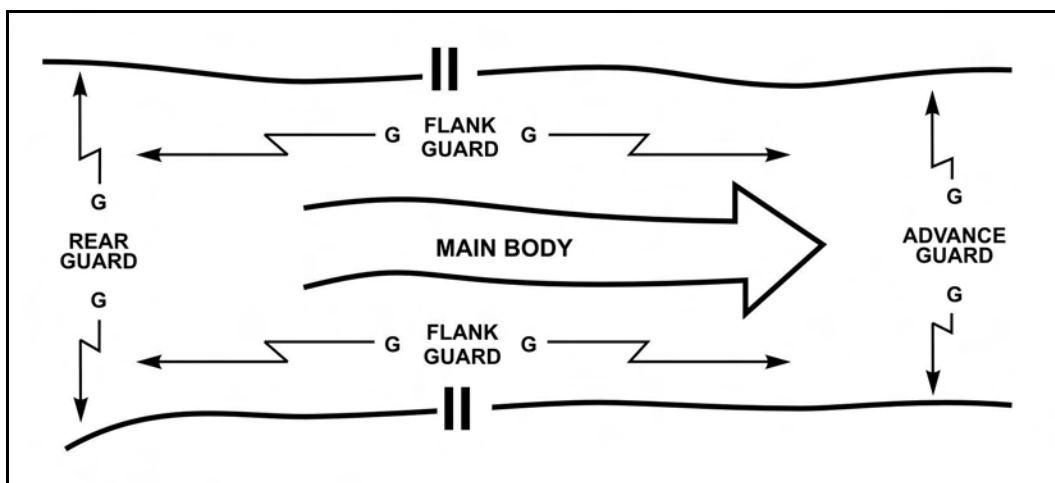
Figure 7-1. Rear, flank, and advance guard operations.

a. **Advance Guard.** The advance guard moves ahead of the main force to ensure its uninterrupted advance, to protect the main body against surprise, to facilitate the advance by removing obstacles and repairing roads and bridges, and to cover the deployment of the main body as it is committed to action. The advance guard is a task-organized combined arms unit or detachment that precedes a column or formation.

(1) The advance guard is normally conducted as a movement to contact. Generally, a battalion receives an advance guard mission when the SBCT moves as part of the division main body in a movement to contact. In deploying an advance guard, the SBCT ensures the battalion has priority of fires. Unlike a movement to contact, the advance guard clears the axis of enemy elements to allow the unimpeded movement of the main body battalions. The security force develops the situation to hand over the enemy to the battalion. The advance guard can conduct hasty attacks if it has sufficient intelligence to overwhelm the enemy.

(2) Depending on the commander's estimate of the situation, a battalion conducting an advance guard normally conducts a movement to contact with companies advancing on axes, in zone, or (rarely) along directions of attack.

(3) 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. The battalion commander establishes phase lines to control the movement of the main body and the advance guard. Advance guard units remain within the SBCT's artillery range.

(4) The advance guard force attempts to destroy enemy forces through hasty attacks. It may be necessary for the battalion to mass at certain locations, destroy the enemy, report, and continue with its mission. If enemy resistance is well prepared and cannot be

destroyed, the battalion reconnoiters to identify a bypass route for the main body, to report enemy size and location, and (when given permission) to fix and bypass the enemy. The following attacking forces are responsible for destroying the bypassed enemy. The main body commander may elect not to bypass the enemy but to conduct a deliberate attack. In this case, the advance guard keeps the enemy contained and prepares to pass main body elements through to eliminate the enemy.

b. **Rear Guard.** When a division conducting a movement to contact requires rear security, a battalion may receive a rear guard mission. The rear guard protects the rear of the main body and all CS and CSS elements in the main body. It may accomplish this by conducting an attack, a defense, or a delay. A battalion commander conducting a rear guard operation follows the same axis of advance as the protected force at a distance prescribed by the main body commander and normally within artillery range. The battalion commander establishes company battle positions or sectors. When using sectors, he designates phase lines and checkpoints to control movement. The rear guard's responsibility begins at the main body rear boundary and extends as far from this boundary as the factors of METT-TC allow.

c. **Flank Guard.** A battalion may receive a flank guard mission during a division movement to contact. The flank guard is responsible for clearing the area from the division main body to the flank guard's designated positions. The battalion must be prepared to operate on a frontage greater than for other tactical operations. Usually, the area extends from the lead forward screen, along the flank of the formation, to either the FEBA or the rear of the moving formation, tying in with the rear guard. Due to the complexities of this operation, this manual provides the following detailed discussion of flank guard operations:

(1) *Templates and Analysis.* Once the battalion receives a flank guard mission, the S2 determines the type of threat facing the battalion during its movement. This information is critical to the commander in his selection of appropriate formation and movement techniques. The IPB must incorporate the entire area of operations, with analysis of the mobility corridors and avenues of approach extending from the FEBA to the objective. The S2 produces a situational template and an event template. He develops and inputs a reconnaissance and surveillance plan with specific objectives for subordinate units as the enemy overlay. Subordinate units verify the S2's situational template during reconnaissance and periodically send enemy overlay updates back to the S2. The staff develops the decision support template (DST) to assist the commander in assessing the situation and making decisions.

(2) *Formation and Movement Techniques.* From the intelligence estimate, the commander determines the formation and movement technique, accounting for the enemy situation and main body disposition. Movement techniques include--

(a) *Alternate Bounds.* The commander uses this technique when he anticipates strong enemy action against the flank. It requires slow movement by the main body.

(b) *Successive Bounds.* The commander uses this technique when he expects enemy action against the flank to be light and movement of the main body to include frequent short halts.

(c) *Moving Guard.* The commander uses this technique when he expects no enemy action on the flank and the main body will move with all possible speed. In the moving guard, a company executes the forward screen mission while traveling as in a movement

to contact. The mortar platoon follows the forward screening company to provide support. The reconnaissance platoon, normally with antiarmor assets under OPCON, conducts a flank screen outside the tentative battle position line. The remaining companies travel in column along an axis behind the forward screen. The commander uses this technique when the greatest enemy danger appears to be from the front.

(3) *Fire Support.* The fire support officer plans and integrates battalion mortar and artillery fires for flank guard operation the same as for any offensive operation. Based on the IPB, he targets those enemy avenues of approach that threaten the force. He targets known and suspected enemy positions along the axis of advance or in the battalion zone to support the forward screening element. During the operation, the battalion executes its fire support plan as it would in movement to contact and defensive operations. On the forward screen, as the battalion encounters enemy positions and subsequently destroys or fixes and bypasses them, it uses artillery to suppress the position. Should the enemy attempt to attack from the flank, the battalion executes the fire support plan as it would for defensive operations to support the defense or delay.

(4) *Engineer Support.* Since the SBCT infantry battalion will normally not receive an attached engineer officer for CP planning, the battalion engineer officer in charge of the attached engineer unit will provide planning support and lead his unit. The assistant brigade engineer officer from the SBCT maneuver support cell may provide the battalion with a detailed situational obstacle plan to facilitate the countermobility effort. The battalion engineer officer has two missions to consider in planning the flank guard mission: mobility and countermobility operations. Engineers are organized as they would be for a movement to contact. Usually, they follow the lead element and assist in negotiating any obstacles that prevent continued advance. The obstacle plan should include rapidly emplaced obstacles through SCATMINES, Volcano, or other assets. Engineers also identify key bridges or other potential obstacles during the planning process so they can render them unusable for enemy maneuver. Above all, the engineers develop a plan allowing the responsive emplacement of obstacles on short notice.

(5) *Air Defense.* The battalion must plan for either active or passive air defense measures. When ADA assets are DS to the battalion, the unit commander or platoon leader will assist the staff in developing a flexible plan to allow for the protection of the force as it changes posture between moving and stationary. Most ADA assets are attached to maneuver elements and the main CP. Route protection or other areas go without support or rely on protection from main body ADA assets. The battalion executes the air defense plan as in a movement to contact where a moving force may need to adopt a defensive posture quickly. Whether moving or stationary, air defense assets must be linked to the main body's air defense early warning net and the positioning of assets must protect not only the flank guard but also approaches into the main body.

(6) *Logistics.* The logistics planner has the same difficulties as in planning a movement to contact. He must plan for responsive and flexible support that may require the immediate resupply of ammunition and evacuation of casualties and equipment upon contact. The planner identifies lateral supply routes to each battle position during the planning process. Moreover, on-order control measures, LRPs, UMCPs, and AXPs are essential to the operation. As the battalion begins its movement, the battalion trains should travel abreast of the flank guard unit (close to the main body) to avoid exposing CSS elements to the enemy. Emergency resupply vehicles carrying ammunition and other

quickly expendable supplies, plus refuelers, are ready to respond to sudden requisitions due to enemy contact. Once the battalion begins the fight, evacuation of wounded personnel and damaged equipment occurs along lateral supply routes all the way to the main body if that is where the support battalion is located. Otherwise, the evacuation is back along the axis of advance.

(7) *Orientation of Forces.* A unique aspect of the flank guard mission is the orientation of the forces and the direction they may be ordered to screen. While the force maneuvers forward along its assigned axis of advance or zone, phase lines control the movement of the company elements. There should be a phase line on either side of each company's battle position. The battle positions themselves are generally larger than in a purely defensive mission, partly due to the large frontage the battalion must cover. Once an element detects the enemy and companies adopt hasty defensive positions, these phase lines become boundaries for controlling the defensive battle. This gives the battalion commander the option of designating company sectors in addition to the battle positions already identified. Similarly, control of the reserve is accomplished through phase lines and checkpoints regardless of the actual direction of the maneuver. As a minimum, the following control measures are included:

- Phase lines (revert to boundaries on contact).
- Battle positions.
- TRPs.
- Axis of advance.
- Axis of advance of main body.
- Objectives (if used).

7-5. COVER

A covering force, unlike a screening or guard force, is a self-contained force capable of operating independent of the main body. The requirements placed upon the covering force, the command and control structure necessary for the forces involved, and the large areas of operations involved require an adequate level of command for successful accomplishment. The battalion performs screen and guard missions. Covering force operations are normally an armored cavalry regiment mission for the corps. The battalion may participate in a covering force as part of a task-organized SBCT for the division. A covering force, or portions of it, often becomes decisively engaged with enemy forces; therefore, it must have substantial combat power to engage the enemy and still accomplish its mission. Field artillery, engineers, air defense, intelligence resources, and CSS should be planned to support the cover mission.

7-6. AREA SECURITY

Area security operations may be offensive or defensive in nature and focus on the protected force, installation, route, or area. The protected force ranges from echeloned headquarters, artillery units, and reserves to the sustaining base. Protected installations can also be part of the sustaining base or they can constitute part of the area's infrastructure. Areas to secure range from specific points (bridges and defiles) and terrain features (ridge lines and hills) to large population centers and their adjacent areas.

a. **Operations in Noncontiguous Areas of Operation.** Operations in noncontiguous AOs require that commanders emphasize area security. During offensive

and retrograde operations, the speed at which the main body moves provides some measure of security. Rapidly moving units in open terrain can rely on technical assets to provide advance warning of enemy forces. In restricted terrain, security forces focus on key terrain such as potential choke points.

b. **Rear and Base Security.** A commander executes rear area and base security as part of an SBCT's sustaining operations responsibilities or as part of stability operations and support operations. During conventional operations, area security operations are normally economy-of-force measures to ensure the continued conduct of sustaining operations designed to support the SBCT's decisive and shaping operations. All area security operations take advantage of the local security measures performed by all units regardless of their location within the AO.

c. **Civil Considerations.** Since civilians are normally present within the AO, a unit restrains its use of force when conducting area security operations. However, the commander always remains responsible for protecting his force and considers this responsibility when establishing his rules of engagement. Restrictions on conducting operations and using force must be clearly explained and understood by everyone. Soldiers must understand that their actions, no matter how minor, may have far-reaching positive or negative effects. They must realize that either friendly or hostile media and psychological operations organizations can quickly exploit their actions, especially the manner in which they treat the civilian population.

d. **Combat Readiness.** Sometimes area security forces must retain readiness over long periods without contact with the enemy. This occurs most often during area security operations when the enemy knows that he is seriously overmatched in terms of available combat power. In this case, the enemy normally tries to avoid engaging friendly forces unless it is on his terms. Forces conducting area security should not develop a false sense of security, even if the enemy appears to have ceased operations within the secured area. The commander must assume that the enemy is observing his operations and is seeking routines, weak points, and lax security for the opportunity to strike with minimum risk.

7-7.   LOCAL SECURITY

Local security includes any local measure taken by units against enemy actions. It involves avoiding detection by the enemy or deceiving the enemy about friendly positions and intentions. It also includes finding any enemy forces in the immediate vicinity and knowing as much about their positions and intentions as possible. Local security prevents a unit from being surprised and is an important part of maintaining the initiative. The requirement for maintaining local security is an inherent part of all operations. Units perform local security when conducting full spectrum operations, including tactical enabling operations. Units use both active and passive measures to provide local security.

a. **Active Local Security Measures.** Active measures include--
- Using OPs and patrols.
- Establishing specific levels of alert within the unit. The commander adjusts those levels based on the factors of METT-TC.
- Establishing stand-to times. The unit SOP should detail the unit's activities during the conduct of stand-to.

b. **Passive Local Security Measures.** Passive local security measures include using camouflage, movement control, noise and light discipline, and proper communications procedures. It also includes employing available ground sensors, night-vision devices, and daylight sights to maintain surveillance over the area immediately around the unit.

7-8.   HIGH-VALUE ASSETS SECURITY

The increased number and importance of artillery, aviation, communications, and intelligence acquisition systems has led to increased emphasis on their security. High-value assets (HVAs) may include artillery and air defense radars, multiple launched rocket system (MLRS) units, UAV launch and recovery sites, Patriot batteries, aviation FARPS, C2 nodes, and intelligence acquisition systems.

a. **Types of High-Value Assets.** HVA security missions are not simply additional requirements. They represent an evolution in the way SBCTs, divisions, and corps fight. Systems that acquire and defeat the enemy with precision fires, at vastly extended ranges, are becoming the primary warfighting tools. Missions that provide for their security and facilitate their movement and effectiveness will continue to increase, rather than decrease, in the future. Types of HVAs a battalion could secure include--

- Q36 or Q37 radars.
- MLRS battery or battalion.
- Division or SBCT UAV site.
- Patriot battery.
- Sentinel radars.
- FARPS.

b. **Planning Considerations.** The magnitude of the security requirement for HVAs varies depending on how many missions are assigned to the battalion for security of SBCT, division, corps, and joint task force assets. Generally, these missions are kept to the minimum number possible. When securing HVAs, the commander must address information requirements. Some of the considerations he must address are--

- IP address, frequencies, location, and linkup point of the HVA.
- Routes to be used for reaching the HVA. How many unit AOs must the security force move through and under what conditions?
- Mission and organization assets and movement and positioning plan of the HVA.
- Nature of the enemy threat.
- Can the HVA be detected and targeted with indirect fire? If so, the battalion needs to consider its own survivability and maintain standoff from the HVA.
- Duration of the mission. Who will determine change of mission?
- What other forces are in the area? What base clusters are nearby?
- What are the triggers to leave the security mission and enter the close fight? Is there an implied reserve mission?
- What are the mission and movement plans of the security force parent unit? The security force must maintain an up-dated COP in order to linkup or join the close fight.
- Who is the security force's higher headquarters? What is their IP address, location, frequency, and movement plan?

- What is the logistical support plan for the force? Who provides logistical security? Into whose communication architecture do they plug?
- How will the battalion track its forces assigned to HVA security missions and transition them back into the close fight?

Section II. RELIEF OPERATIONS

A relief is an operation in which one unit replaces another in combat. The incoming unit assumes responsibility for the mission and the assigned sector or zone of action. A relief-in-place may be conducted at any point during offensive or defensive operations. Relief operations are normally executed during limited visibility to reduce the possibility of detection. FBCB2 enhances the planning and execution of relief operations and enhances fratricide avoidance efforts by allowing the commanders to maintain a continuous picture of unit location and disposition. Furthermore, it allows the commanders to expedite forward movement since the relieved force can monitor the progress of the linkup force and provide protective fires or adjust fire control measures predicated on the speed with which the linkup force is moving. To facilitate and ensure successful operations, the linkup and relieved force commanders and staffs exchange as much information as possible to prevent the inadvertent engagement of friendly forces by either direct or indirect fire systems during relief operations. Digitally equipped units can pass this information through an exchange of FBCB2 overlays that clearly define friendly positions, fire support control measures, obstacles, linkup points, and signals. Nondigitized units should exchange this information through liaison personnel and conventional acetate overlays. Collocation of CPs for both type units is recommended.

7-9. PLANNING CONSIDERATIONS

Upon receipt of the order to conduct the relief, the incoming battalion commander and staff establish continuous liaison with the stationary unit through an exchange of liaison personnel or a digital exchange of information pertinent to the relief operations. Commanders and staffs emphasize communications, reconnaissance, and transfer of command. If possible, the incoming unit's CP should collocate with the main CP to facilitate continuous information exchanges relative to the occupation plan, fire support plan, and intelligence updates that include past, present, and probable enemy courses of action. Although digitization allows coordination without physically locating together, face-to-face coordination reduces any potential misunderstandings related to relief preparation or the forthcoming operations. Before contact with the stationary unit, the relieving force digitally receives the maneuver graphics, fire plan, and current enemy situation by way of FBCB2 or MCS overlays. Responsibility for the area is transferred as directed by the senior common commander, normally when the incoming unit has a majority of his fighting force in place and all communications systems (voice and digital) are operating. When planning the relief, the staff determines the most appropriate method for executing the relief by using one of the following methods.

 a. **Relieving Units One at a Time.** This method is the most deliberate and time-consuming. It involves sequentially relieving maneuver companies one at a time. Separate routes to the rear of the relieved companies' locations are planned for each maneuver company and placed on the operations overlay. To avoid cluttering the FBCB2 display, only the routes of the relieving force are included on the operations overlay.

Routes are labeled sequentially and correspond to the order in which the company executes them during the relief. When the lead company reaches its release point (RP), its platoons move to the positions they are occupying. Crews exchange range card and fire support information, and the relieved unit then moves to the rear to its next location. When the lead company is in position, the next company moves along its designated route to relieve its counterpart, repeating the relief process. This process repeats until each company has been relieved. If transfer of supplies from the relieved unit is directed, the S4 coordinates a transfer point to execute the exchange.

b. **Relieving Units at the Same Time.** This method is the fastest but risks revealing friendly unit intentions. To expedite the relief, the in-place battalion prepares FBCB2 overlays to depict current friendly graphics, fire support measures, and the latest enemy situation update. They then pass these overlays to the relieving force before the two forces make contact. Once the command groups collocate and exchange plans, relief occurs at the same time at each location. The units of the relieving and relieved battalions execute at the same time a move 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 battalion level are identical to those used for a sequential relief (one unit at a time).

c. **Relieving Units by Occupying In-Depth and Adjacent Positions.** This technique requires sufficient terrain to accommodate positioning of two like-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 units' fire plans. This procedure requires that relieving company and battalion commanders conduct a detailed physical reconnaissance of the position with their counterparts from the in-place unit. They enter information gathered from the physical reconnaissance (for example, BPs, TRPs, and routes into and out of the area) on FBCB2 operations overlays and share them throughout the relieving unit during the planning and preparation process.

7-10. CONDUCTING THE RELIEF

Execution of the relief follows one of the three previous techniques. During the relief, the command group and the staff in the main CP monitor the progress of the relief through FBCB2. To facilitate uninterrupted fires 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 in order to maintain OPSEC. When the companies are set and the relieved unit withdraws from the BP, company commanders send the S3 an FBCB2 spot report (SPOTREP) indicating that the company is defending.

7-11. COMMAND AND CONTROL

If either force gains direct fire contact with an enemy force, it immediately notifies the other unit and the higher headquarters by way of FM voice communications. It then follows this voice report up with an FBCB2-generated contact or SPOTREP so that the precise location of the enemy force (enemy icon) is displayed on FBCB2. If responsibility for the sector 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 sector has passed to the relieving battalion.

Section III. BATTLE HANDOVER AND PASSAGE OF LINES

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.

7-12. BATTLE HANDOVER

Battle handover may occur during either offensive or defensive operations. During defensive operations, it is normally planned and coordinated in advance to facilitate execution and usually involves a rearward passage of lines. In the offense, it is situation-dependent and often initiated by a FRAGO. Battle handover normally occurs in the offense when one unit passes through or around another unit. Tactical and digital SOPs containing clear, simple, standardized procedures and control measures enhance a unit's ability to coordinate and synchronize actions quickly without experiencing a corresponding loss in momentum.

a. Battle handover occurs along a line forward of the stationary force. The SBCT commander establishes this line in consultation with both stationary and passing battalion commanders. The stationary battalion commander normally determines the battle handover line location. This line could be forward of the FEBA in the linear defense (or the FLOT in the linear offense), or it could be a line determined by the common controlling headquarters in a nonlinear environment. The BHL is located where elements of the passing battalion can be effectively overwatched by direct fires or supported by indirect fires of the forward combat element of the stationary battalion until the battle handover is complete.

b. Physical handover normally occurs in the battle handover zone. 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 by FM voice) between the battalions involved in the handover allows them to coordinate and execute this process at the small-unit level.

c. The battle handover operation begins on order of the higher headquarters commander of both 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 normally 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 the fight.

d. 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 TSOP should outline these coordination requirements to facilitate rapid accomplishment.

e. Digital systems assist the battalion staff in its coordination and synchronization efforts for the operation. Each unit transmits or delivers a complete copy of their OPORD and overlays by either digital (FBCB2) or conventional (hardcopy and acetate overlay) means. Any changes made after initial distribution are updated immediately. The coordination effected between the two commanders includes--

- Establishing digital and FM voice communications.
- Providing updates of both friendly and enemy situations (digital, voice, and graphical).
- Coordinating passage points and routes and ensuring these are displayed on operational overlays (digital and conventional).
- Collocating C2 and exchanging liaison personnel (if required).
- Coordinating fires and fire control measures (direct and indirect) and ensuring these are displayed on operational overlays (digital and conventional).
- Determining the need for and dispatching contact point representatives.
- Establishing and coordinating recognition signals (conventional).
- Exchanging locations of obstacles and related covering fires.
- Exchanging route information to include waypoints.
- Determining CS and CSS requirements.

f. Due to the fluid nature of a battle handover, digital coordination may be too difficult to accomplish. Commanders determine whether they can use digital systems to speed the planning, coordination, and execution processes. FM voice may be the most prudent method of coordinating and executing battle handovers.

7-13. PASSAGE OF LINES

A passage of lines is the coordinated movement of one or more units through another unit. It is normally conducted when at least one METT-TC factor does not permit the bypass of a friendly unit. 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 for an area from one unit to another. The battalion or its subordinate units execute a forward or rearward passage of lines (Figures 7-2 and 7-3, page 7-14). A passage of lines may be conducted to--

- Continue an attack or counterattack.
- Envelop an enemy force.
- Pursue a fleeing enemy.
- Withdraw covering forces or MBA forces.
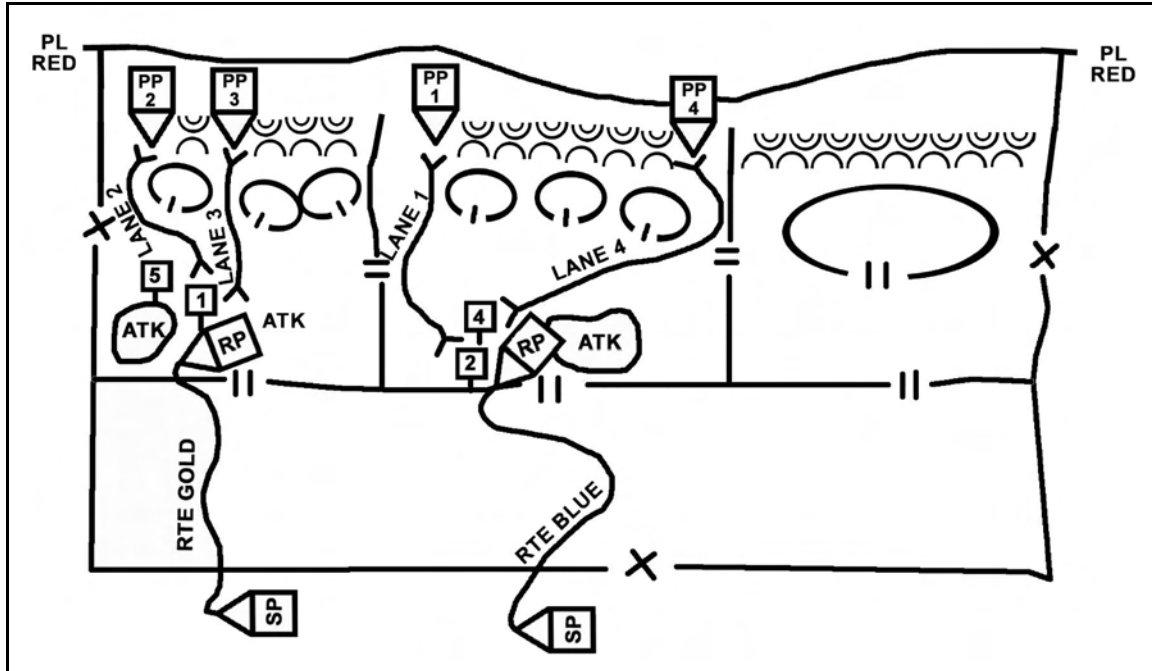
Figure 7-2. Forward passage of lines.
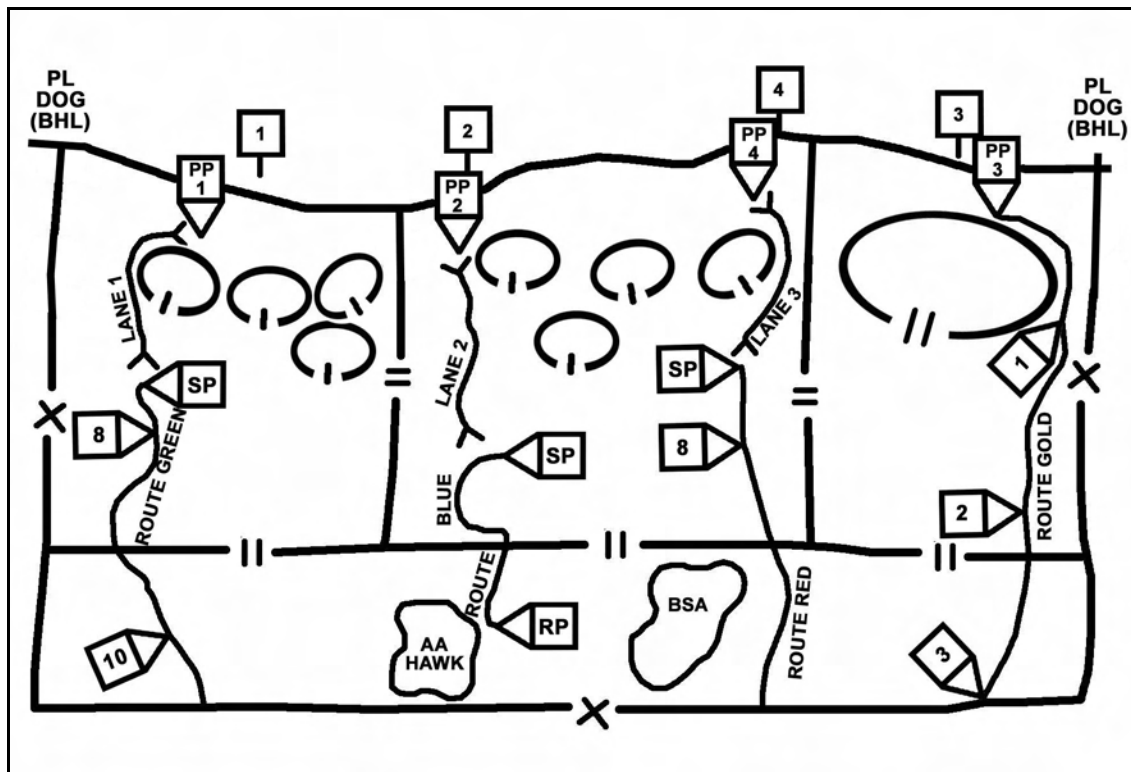
Figure 7-3. Rearward passage of lines.

a. **Planning.** The division or SBCT plans and conducts a battalion 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 battalion S2 and staff conduct the IPB, and the S3 prepares his tentative plan based on stationary force restrictions, the IPB, and parameters established by the battalion commander. The S3s of the passing battalion and the stationary battalion coordinate routes, checkpoints, linkup points, and passage points via FBCB2 or conventional means. Planners must evaluate the following basic considerations and integrate them into the planning process.

(1) *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 that contain--

- Routes (primary and alternate).
- Checkpoint data.
- Friendly and enemy unit locations and status.
- Passage points.
- Fire support control measures.
- Obstacle types and locations.
- CSS locations and descriptions.

(2) *Liaison.* Stationary and passing battalions exchange information by way of extensive and detailed coordination and liaison before mission execution.

(3) *Communications.* Communication architectures, digital systems, communications security (COMSEC), recognition signals, and communication procedures and requirements must be identified, synchronized, and integrated into the OPLAN. Communication ensures units share a common tactical picture of the battlefield and pertinent combat information and maintain a common relevant picture.

(4) *Mission Transition.* Plans for the conduct of the passage must facilitate transition to the subsequent missions of both the passing and stationary battalions.

(5) *Exchange of Zone or Sector Control.* Control of the zone or sector passes from one battalion to the other at a time and place directed by the higher common commander or as mutually agreed upon by the stationary and passing battalion commanders.

(6) *Routes.* The passing battalion moves on multiple routes through the passed battalion and avoids the use of assembly areas. It does not halt within the passed battalion's forward positions.

(7) *Employment of Deception and Smoke.* Deception and smoke operations can deceive the enemy as to actual unit locations and passage points.

(8) *Control Measures.* Establish graphic control measures to ensure positive control of both the stationary and passing units.

(9) *Location of Stationary Battalion and Obstacles.* The location and obstacle emplacement of the stationary battalion may impact planning and execution of the forward passage of lines.

(10) *Mobility and Countermobility Operations.* Mobility and countermobility operations are of major concern and must be evaluated to ensure that existing obstacles do not hinder the maneuver of the passing unit during the passage of lines.

NOTE: 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, such as company or platoon wedge.

b. **Fire Support.** The 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. He does so through the transfer of digital fire support overlays between the two FSEs via advanced field artillery tactical data system (AFATDS). Procedures to establish fire support battle handover or transfer of control are also identified and approved by the maneuver commander. Terrain and route management for artillery batteries and their support assets are especially important due to potential terrain limitations. All artillery units, to include reinforcing and general support reinforcing units, must be positioned to support the passage if enemy contact is possible during the operation.

c. **Engineers.** A passage of lines may require either the reduction of some obstacles or the opening and closing of lanes through friendly obstacles. The passing battalion engineer must coordinate with the stationary unit engineer via digital means or face-to-face meeting. As 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.
- Transfer of obstacle and passage lane responsibilities.

d. **Air Defense Artillery.** During the conduct of a passage of lines, units participating in the operation present a lucrative target for air attack. The passing commander coordinates ADA protection with the stationary force commander for ADA coverage during the passage of lines. This method allows the passing force's supporting air defense assets to conduct a move at the same time. If the passing force requires static air defense, then it must coordinate the terrain with the stationary battalion's S3. To ensure the passing force's ADA assets are incorporated into the stationary force's air defense early warning net, the stationary force uses forward area air defense command, control, computers, and intelligence (FAADC3I) for ADA coordination. If the stationary battalion is not equipped with FAADC3I or Sentinel radars, commanders should consider positioning these assets in the stationary battalion area to provide more effective early warning and air defense.

e. **Combat Service Support.** The CSS plan is integral to a successful passage of lines. CSS assets are positioned to support the passage. UMCPs and emergency refueling points are positioned where they can best keep lanes open and vehicles moving. Figure 7-4 shows the CSS plan for a rearward passage of lines.
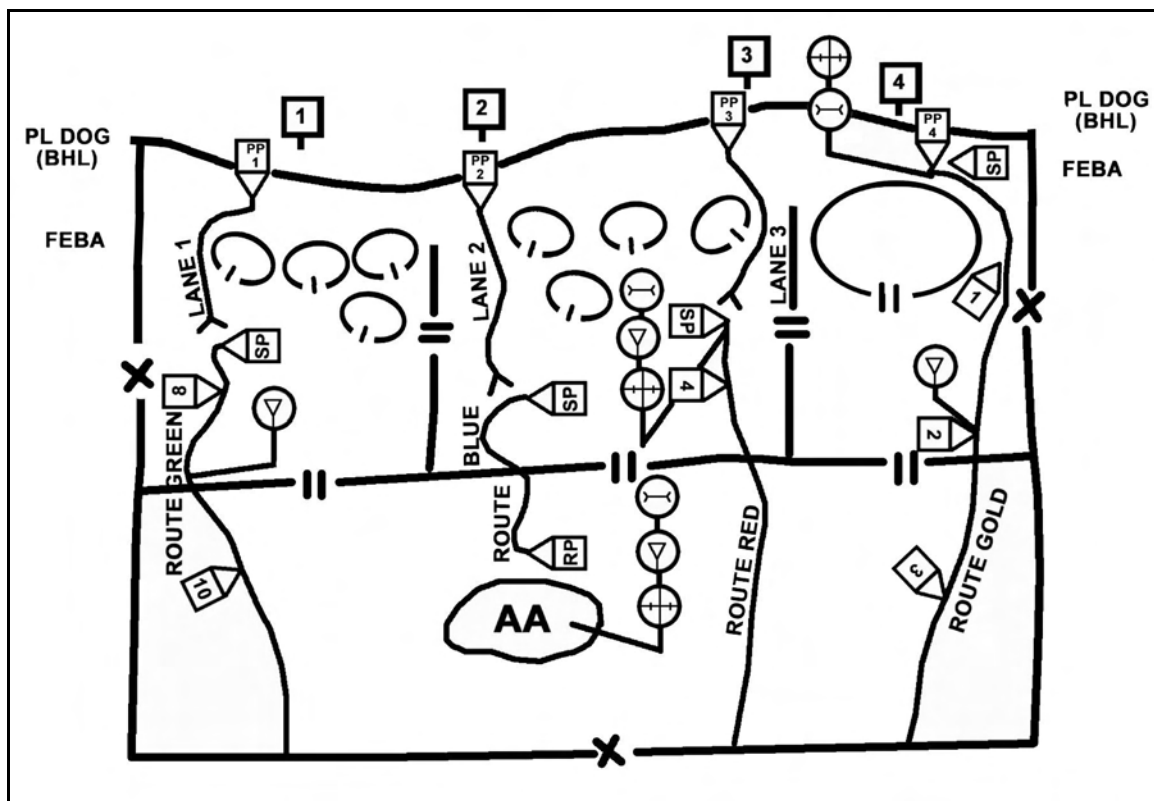
Figure 7-4. Combat service support plan for rearward passage of lines.

7-14. FORWARD PASSAGE OF LINES

In a forward passage of lines conducted as part of an attack, both 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 share data needed to effect a passage of lines in a timely and safe manner.

a.   On receipt of an order, the passing battalion commander begins preparing his passage of lines plan by conducting a reconnaissance while concurrently updating the information received from the stationary battalion. For example, the passing battalion receives an FBCB2 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 S3 from the passing battalion updates the initial operations overlay, incorporating information received from the stationary battalion by adding pertinent control measures. Upon completion, the S3 forwards this overlay to the main CP. Based on this information, the staff completes development of the plan. Once approved by the commander, additional control measures are added to the operations overlay as necessary to complete the plan.

b.   The main CP forwards the validated operations overlay update from the stationary and passing battalion, SBCT, and subordinate units to the liaison teams. This technique allows the S3 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

battalion plan is distributed digitally by way of FBCB2 to subordinate units and higher headquarters.

7-15. REARWARD PASSAGE OF LINES

Typically, a rearward passage of lines occurs within a defensive framework in which elements of the covering force operate forward of the MBA. MBA forces are the stationary unit in a rearward passage of lines. The covering force withdraws through them, handing off control of the fight at the battle handover line.

a. To facilitate a rearward passage of lines, the stationary force commander designates--
- The battle handover line.
- Contact points forward of the BHL.
- Passage points along the FEBA.
- Lanes to the rear of the MBA.

b. Once he prepares the overlay, the stationary commander transmits it and any amplifying information to the passing force commander by way of FBCB2.

c. During a passage of lines, unit density in a relatively small maneuver space may cause problems in the ability of the commanders to maintain an up-dated COP in relation to both the passed and passing units. The stationary and passing commanders should determine the best method of exercising C2 to avoid slowing the tempo of the operation and to reduce fratricide potential.

7-16. REHEARSAL

During the rehearsal for a passage of lines, 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--
- Fire support observation plan, target execution, communication linkages, and mutual support operations. Confirm fire support control measures. Review unit routes and positioning.
- Locations and descriptions of obstacles, lanes, bypasses, and markings. Confirm locations of any engineer stockpiles.
- Air defense weapons locations, early warning communications, air threat, and weapons control status.
- Passage points, routes, and recognition procedures. Confirm these and review numbers of vehicles by type expected at each passage point. Rehearse route management, contact points, and use of guides.
- Locations for and movement of CSS units. Rehearse these, along with mutual support arrangements and any transfer of supplies.
- Locations of aid stations, ambulance exchange points, and casualty evacuation procedures (rehearse these).

Section IV. LINKUP OPERATIONS

Linkup operations, which join two or more friendly forces, are conducted to--

- 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.

Before commencing a linkup operation, the headquarters elements of the stationary force and linkup force must share information including COMSEC procedures and digital graphic overlays consisting of--

- Primary and alternate linkup points.
- Checkpoint and waypoint information.
- Unit disposition and activity (friendly and enemy).
- Locations and types of obstacles.
- Fire control measures including RFLs.

7-17. CONTROL

The stationary and linkup force must maintain positive control during linkup operations to prevent inadvertent fratricidal engagements. They use FBCB2 and FM voice systems as required to share combat information and to identify friend from foe positively. 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 is established and maintained.

a. The S6s of the two linkup units are integral to successful linkup operations when both units are digitally equipped. These officers must ensure that units address both primary and alternate forms of communication during planning and that they synchronize both manual and digital systems used in support of the linkup operation and integrate these into the linkup plan.

b. Special requirements related to digital operations must be identified. The following are examples:

- Exchange of unit IP address databases.
- Single channel ground and air radio system (SINCGARS) and enhanced position location reporting system (EPLRS) hop set data.
- COMSEC requirements.
- Positioning of EPLRS position server links.
- Modifications to digital communications structure.

7-18. FORMS OF LINKUP

Linkup operations take one of two forms: linkup of a moving force and a stationary force or linkup of two moving forces.

a. **Linkup of a Moving Force with a Stationary Force.** To ensure the forces join without engaging one another, linkup points are selected at locations where the axis of advance of the linkup force intersects the security elements of the stationary force (Figure 7-5, page7-20). These points must be readily recognizable to both forces and should be posted on both digital overlays and conventional maps in case of digital communication 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.
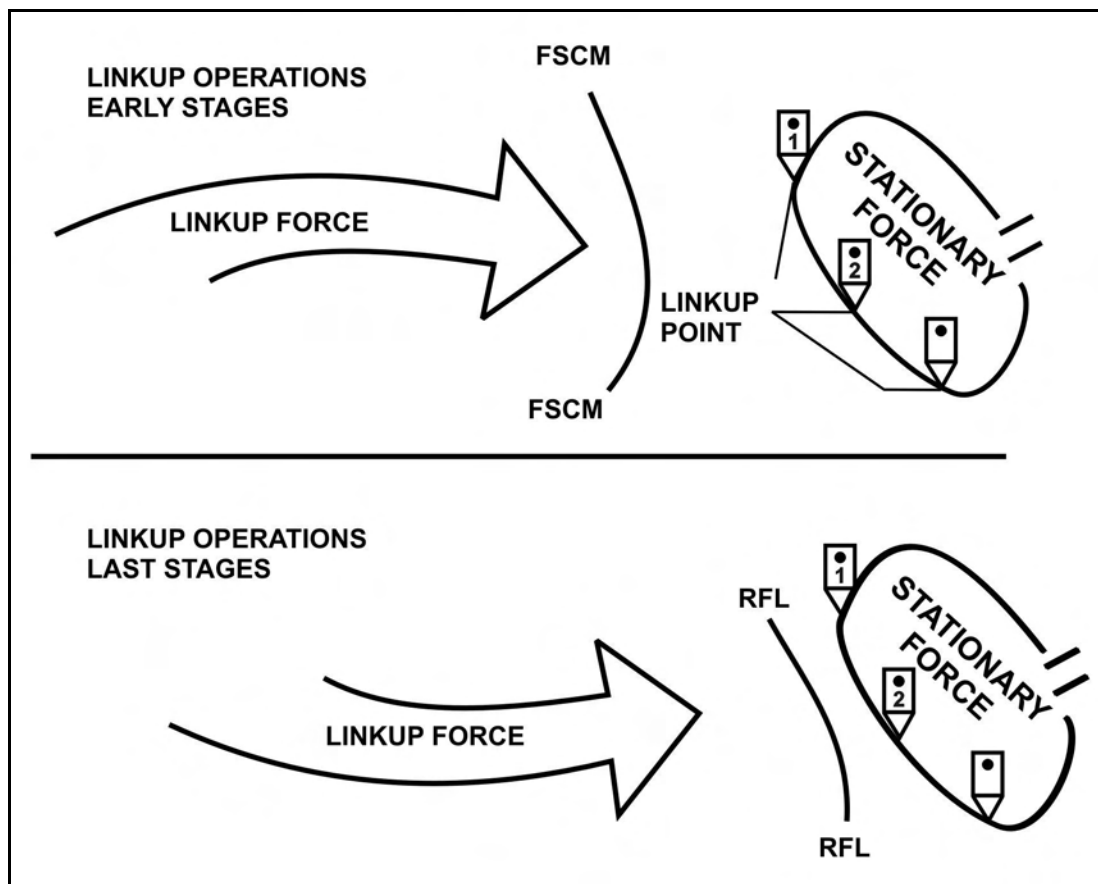
Figure 7-5. Linkup of a moving force with a stationary force.

(1) The communications section is critical to linkup operations. Digital communications are used to transmit and share the COP. However, use of digital means depends on METT-TC factors and the ability to maintain digital linkages between the moving unit and stationary unit.

(2) 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 assembly areas.

(3) When linking up with an encircled force, the battalion carries as much materiel as possible during the linkup operation. This materiel includes Classes I, III, V, and VIII. If an enemy force has encircled the stationary force, the battalion carries additional supplies and materiel requested through to the SBCT S4 and BSB before the linkup takes place. The battalion S4 ensures that each company has received the FBCB2 CSS overlay depicting MSRs, traffic control points, AXPs, and UMCPs.

b. **Linkup of Two Moving Units.** Linkup between two moving units is one of the most difficult operations (Figure 7-6). It is normally 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.
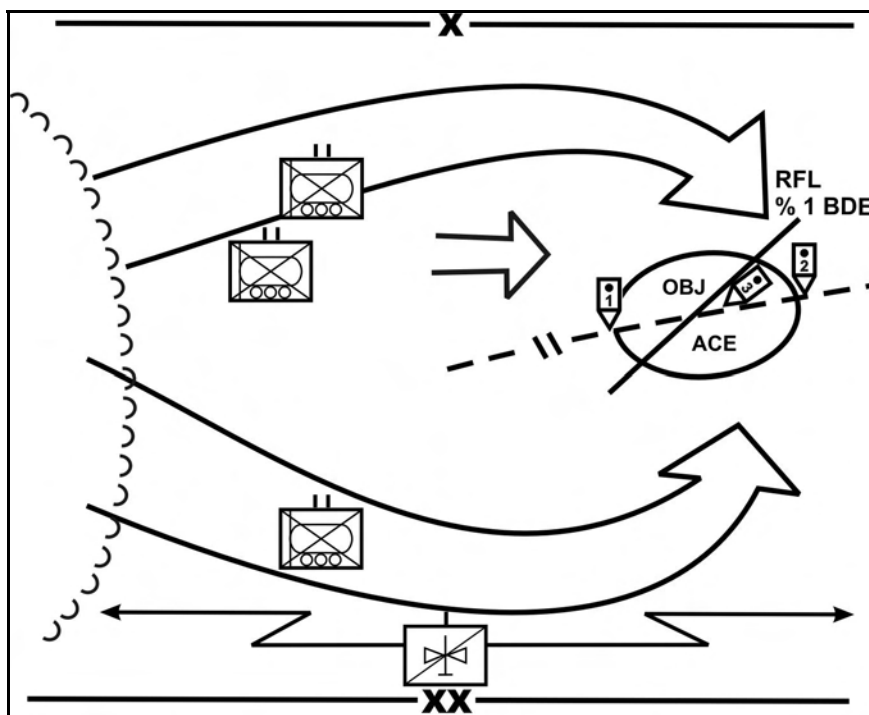
Figure 7-6. Linkup of two moving units.

c. **Actions Following Linkup.** 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.

(1) If the linkup force is to continue operations with the stationary force, a single commander for the overall force is designated. Objectives for the linkup provide for dispersion in relation to the stationary force. The linkup force may immediately pass through the perimeter of the stationary force, be assigned objectives within the perimeter, or be assigned objectives outside the perimeter, depending on the mission.

(2) When the SBCT directs a linkup operation, it normally establishes a restricted fire line 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.

d. **Planning.** 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 certain 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.

(1) 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 through the tactical internet (TI). As the distance closes between the forces, the requirement to track movement through FBCB2 and maintain close liaison increases. Use of Army aircraft can improve and expedite this process.

(2) Linkup operations frequently require a passage of lines. Once through friendly lines, the battalion moves out as in an exploitation to effect the linkup. Speed, aggression, 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.

(3) The 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 can remain under control of the directing headquarters. Operational plans must prescribe the primary and alternate day and night identification and recognition procedures, vehicle systems, and manmade materials used to identify friend from enemy.

(4) The communication plan includes all essential frequencies, secure variables, IP addresses, and communication needlines to maintain communication between the two forces.

(5) Logistical support requirements may be greater during linkup operations than during other offensive actions. Additional considerations for planning logistical support in linkup operations include--

- Resupply of stationary unit.
- Fuel requirements.
- Duration the objective is to be held (METT-TC).
- Operations after the linkup is completed (for example, attack, withdraw, or defend).
- Transportation requirements for special purpose forces (for example, air assault and special operation forces).
- Line of communication (LOC) security requirements.

(6) Supply requirements for a linkup operation may exceed the transportation capability of the battalion. The battalion may have to request additional vehicles from higher headquarters, Army aviation support, or both.

(7) In linkup operations involving airborne and air assault units, the units assaulting the objective area have priority for supply by air. Supplies for the ground linkup forces normally move by land transportation. However, when the linkup and an airborne or air assault force plan to defend the objective area jointly, supplies for the linkup force may be flown into the objective area and stockpiled.

(8) Evacuation of equipment, WIAs, and EPWs may create major problems for the linkup force. If supply routes are open, normal evacuation procedures apply. When ground routes are not secure, helicopters are used for the evacuation of casualties and prisoners. Damaged equipment may be moved forward with the linkup forces until it can be evacuated at the first suitable opportunity.

e. **Preparation.** Due to the time-sensitive nature of linkup operations, the commander issues his order digitally. If time is available, he conducts a rehearsal at higher headquarters. If time is not available, the commander walks the linkup commander through the operation. He stresses the linkup and coordination required to reduce the potential for fratricidal engagements between the linkup forces. In addition, he ensures that each battalion commander is prepared to respond to an enemy meeting engagement or attack before the linkup. The battalion FSO is an integral member of the team that plans linkup operations. He is responsible for the coordination, synchronization, dissemination, and monitoring of the fire support plan and FSCMs. He is also accountable for the conditions and methods for changing the fire support plan or control measures.

f. **Execution.** 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 SBCT commander monitors the progress and execution through the COP to ensure that the established positive control measures are followed or adjusted as required. Adjustments made to the OPLAN are coordinated and synchronized by way of digital systems. If a FRAGO is passed by FM voice, a digital follow-up is entered and transmitted through FBCB2 to ensure all units are aware of the change. The following discusses the digital procedures that may be used when friendly forces are conducting a linkup.

(1) As the linkup forces begin their maneuver, they establish digital and FM voice communications and maintain them throughout the operation. As each force maneuvers, progress is tracked by way of FBCB2, 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.

(2) In nondigitized units, as the linkup forces near each other, the speed (momentum) of the operation may be slowed to maintain positive control and to prevent fratricide. In this case, commanders must be vigilant and ensure enemy forces do not slip between the two closing forces. Momentum of a linkup operation should not slow for the digitized battalion since the maneuver and movement of all forces can be tracked by way of FBCB2 and the C2 INFOSYS.

(3) The battalion FSE changes or activates the FSCMs established for the operation based on the progress of the forces and the enemy situation. All changes are provided to the FSEs of the maneuver units involved in the linkup through FBCB2 or AFATDS. As the maneuver units draw closer to one another, coordinated fire lines (CFLs) are canceled and an RFL is placed into effect to prevent fratricide between the converging forces. Once the linkup has occurred, fire support for the battalion is organized as per the higher headquarters plan for future operations.

(4) The battalion commander positions himself to observe the progress of the operation and maintains both digital and FM voice communications with the S3. The commander of a digitized battalion is more flexible in positioning since he can maintain a composite picture of the progress of both maneuver units digitally and adjust the linkup plan as required. The battalion S3 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 S3 locates where he can best observe the battalion's secondary action.

Section V. RIVER CROSSING OPERATIONS

There are three types of river crossing operations: hasty, deliberate, and retrograde. Battalions do not make deliberate or retrograde crossings independently; these are centralized operations where the controlling echelon is a division or SBCT. (For a detailed discussion of these operations, see FM 90-13.)

7-19.   GENERAL CONSIDERATIONS

Battalions routinely make hasty crossings and reorganize in order to maintain the momentum of operations. The COP reduces uncertainty about the enemy and friendly situation, enabling the battalion to move rapidly to undefended or lightly defended crossing sites where it uses all available means to push its companies across the river and onto objectives on the far side.

a.   A hasty river crossing is a continuation of an attack across the river with no intentional pause at the water to prepare so that there is no loss of momentum. This technique is possible when enemy resistance is weak and the river is not a severe obstacle.

b.   Battalions cross in their respective zones at multiple points and as quickly as possible. The battalion may require the use of organic, existing, or expedient crossing means. Additional support from the division or corps may be necessary if bridging requirements exceed the capability of engineers augmenting the battalion. Bridge companies are controlled at corps level. Their support is available only when headquarters have taken purposeful action to position the assets at the right time and place to assist a battalion's hasty crossing. The battalion must coordinate for support through the SBCT early in the planning process.

c.   Small gaps, streams, and small rivers that prohibit vehicles from advancing are encountered more frequently than large gaps and rivers that require extensive bridging. When terrain or enemy conditions dictate, each battalion should request organic mobile crossing assets that enable it to install bridges quickly, cross small gaps, and recover the bridges for future crossings. Follow-on bridges, such as the medium-girder bridge (MGB), may need to be positioned at these gaps before assault bridges are removed so that following forces and support units can maintain the pace of the battalion. The two types of hasty crossings are dry-gap and wet-gap crossings.

(1) *Hasty Dry-Gap Crossing*. Antitank (AT) ditches and craters are normally what battalions encounter as a dry-gap obstacle. Dry riverbeds may also present a crossing problem to vehicles. The battalion may use expedient crossing means if they are readily available and can be transported to the crossing site. Reconnaissance elements should note material or existing features that can be used as expedient crossing devices. These include culvert pipe, lumber or cut timber, and war-damaged equipment. The pipe fascines system, which consists of bundles of 8-inch, high-density plastic pipes chained together, can fill gaps up to 9 meters deep and support up to 70 tons. The SBCT has four organic, rapidly emplaced bridge systems (REBSs), each capable of spanning 13 meters and crossing up to military load class 30 vehicles. REBSs should be left in place across

the gap only as long as it takes to cross the battalion and then replaced with other fixed bridging if necessary or available.

(2) *Hasty Wet-Gap Crossing*. Bank conditions, the depth and width of the wet gap, and the current velocity determine whether the battalion can cross its vehicles by fording and whether other bridging assets are required. Identifying wet gaps early and deploying the required resources allow hasty crossings of known or anticipated gaps to occur.

(a) Because vehicles drain rapidly when exiting, initially firm banks tend to deteriorate rapidly from multiple uses of the same exit point. The existence of mud or surface irregularities further degrades the percent of the slope that vehicles can overcome. When selecting a fording site in a wet-gap crossing, the depth of the water is the most significant factor. The depth of the water in one crossing area may change due to bottom surface mud or irregularities (boulders and potholes).

(b) If possible, the battalion crosses the water obstacle at multiple points across a broad front by fording mounted or dismounted forces. It makes the crossing as soon as its elements reach the obstacle. As the bulk of the battalion crosses the water, minimum forces remain to secure the crossing sites.

(c) As with a hasty dry-gap crossing, the battalion may use expedient crossing means if they are readily available and can be transported to the crossing site. Reconnaissance elements should note material or existing features that could be used as expedient crossing devices. These include culvert pipe, lumber or cut timber, or war-damaged equipment. The pipe fascines system, which consists of bundles of 8-inch, high-density plastic pipes chained together, can fill gaps up to 9 meters deep and support up to 70 tons.

(d) A well-practiced SOP reduces the necessary planning and preparation time. A concise order clearly articulating the commander's intent allows exploitation wherever subordinate units successfully force a crossing. When possible, advance elements seize existing crossing means intact and ahead of the main body.

(e) When facing negligible or light enemy resistance on both banks, the force does not have to clear all enemy forces from the river to conduct a hasty crossing. It capitalizes on the speed of the crossing and the limited ability of the enemy to oppose the crossing effectively.

7-20. ASSAULT OF THE CROSSING SITE

A battalion assault across a river normally begins with an attack to secure terrain on the exit bank. This may involve an air assault by dismounted infantry elements, an assault crossing using pneumatic boats, or an infiltration by swimming or rope bridges. Regardless of crossing technique, the dismounted elements constitute the battalion's assault force.

a. **Air Assault Crossing.** An air assault is the fastest and most preferred crossing method. The following considerations apply when planning an air assault as part of the battalion river crossing. (Refer to Appendix I, Air Assault Operations, and FM 90-4 for detailed discussion of air assault operations.) Helicopters--

- Require indirect approaches to avoid detection.
- Provide the element of surprise.
- Give greater flexibility for emplacement of personnel and equipment.
- Provide the rapid insertion of forces into the area where the enemy is located, if an LZ is available.

- Are greatly affected by weather conditions.
- Must be a high air defense (AD) priority at the river, requiring suppression of enemy AD effort.
- Require the separation of troops from their vehicles and equipment.
- Are vulnerable to armored counterattacks and require a quick ground linkup.

b. **Rubber-Boat Crossing.** The following considerations apply when using rubber boats in an assault crossing. Rubber boats--

- Offer great opportunity for surprise in a silent-paddle crossing.
- Are a relatively fast means of crossing, especially when using outboard motors.
- Maneuver well in the water.
- Require limited, if any, entry-bank preparation and no preparation on the exit bank.
- Require the separation of troops from their vehicles and heavy equipment.
- Have limited carrying capacity, particularly AT weapons.
- Provide limited protection, mobility, firepower, and communications on the exit bank.

c. **Organization for Boat Crossing.** The specific organization used for a boat crossing depends on METT-TC factors, particularly the size of the bridgehead, the distance to exit-bank objectives, and the nature of the enemy's defense. Regardless of these factors, the battalion organizes into support and assault forces and is assisted in the assault by other units in support-by-fire positions.

(1) *Support Force.* The support force is normally the MGS and ICV of the company whose dismounted infantry is conducting the assault crossing. This force establishes a support-by-fire position along the friendly bank before the assault. It uses night vision and thermal sights to locate enemy positions. It also develops a fire plan to engage these positions and to provide suppressive fires on all suspected positions. When directed to engage, the support force destroys all known and suspected positions. The assault force commander (usually the battalion commander) directs the support force commander (usually the XO) to lift or shift suppressive fires as necessary. Supporting artillery and the mortar platoon provide indirect fire support and effects.

(2) *Assault Force.* The first assault wave moves the force across covertly. This force attempts to provide sufficient security on the far shore so that the second and later assault waves can cross if surprise is lost. Each assault company receives engineers that accompany the assault force to its objective, helping it fight through obstacles and prepared defenses. The engineers help the assault force establish hasty defenses after it has seized its objectives. The first assault wave carries--

- Rifle platoons.
- Attached assault engineers.
- Forward observers.
- The command group.

(a) *First Assault Wave.* The organization of the first wave permits rapid deployment of the force into a tactical formation on the far shore. Individual boatloads retain unit integrity at the lowest level. The two basic boatload configurations are the rifle squad boat and the rifle platoon headquarters boat.

- The first wave of the assault may consist of three company flotillas crossing on line. Battalions do not have a prescribed crossing formation. Each company crosses in its own zone and attacks its own objectives.
- Platoon boat groups form into company flotillas. The company commander commands the guide boat in the center platoon. The company command group disperses between boats, filling in vacant boat positions.

(b) *Second Wave.* The second wave carries company aid stations and may include the battalion command group. If sufficient AD systems are in place to cover the crossing area, the SBCT may release some of the augmenting AD teams to cross in the second wave as man-portable air defense (MANPAD) teams. The second wave also transports additional material and ammunition that is not required for the initial assault but is necessary to establish a defense. This may include antiarmor weapons, mortars, ammunition, laser designators, mines, or pioneer tools.

(c) *Subsequent Waves.* The immediate movement of some AT weapons across to support the assault element is essential if an armor threat exists. As vehicles carry all heavy AT weapons, engineers concentrate on moving antiarmor systems or vehicles carrying heavy weapons across immediately after the second wave. Engineers begin bank preparations on both the near and far shore, using hand tools and heavy equipment where possible. They may deep ford a bulldozer to get a winch capability to the far shore. If necessary, ICVs can ford with towing assistance. If absolutely necessary, rafting can be used, but this is a high-risk operation and is vulnerable to enemy indirect and direct fire systems. (For a detailed description of assault crossing techniques and procedures, see FM 90-13.)

Section VI. COMBINED ARMS BREACHING OPERATIONS

Obstacle breaching is the employment of a combination of tactics and techniques to project combat power to the far side of an obstacle. Breaching is a synchronized combined-arms operation under the control of a maneuver commander. Breaching operations begin when friendly forces detect an obstacle and initiate breaching fundamentals; they end when the enemy is destroyed on the far side of the obstacle or battle handover has occurred between a unit conducting the breaching operation and follow-on forces. Breaching is an inherent part of maneuver. Effective breaching operations allow friendly maneuver in the face of obstacles.

7-21. BREACH TENETS

Successful breaching operations are characterized by the application of breach tenets. These tenets are applied whenever an obstacle is encountered, whether friendly forces are conducting an attack or route clearance operations. The breach tenets are--

- Intelligence.
- Breaching fundamentals.
- Breaching organization.
- Mass.
- Synchronization.

a. **Intelligence.** Critical to a commander's success is the ability to identify how the enemy applies obstacles to the terrain. The commander and staff conduct intelligence preparation of the battlefield to develop initial SITEMPs and priority intelligence

requirements. Intelligence gathered by reconnaissance forces is essential to developing a finalized SITEMP and final point of breach locations. Unverified enemy SITEMPs may cause friendly forces to deploy to reduce obstacles early, waste mission time attempting to locate non-existent obstacles, develop COAs using ineffective obstacle reduction methods, or become surprised by an obstacle. Augmentation of reconnaissance forces by engineer squads or sections may be utilized as part of the overall ISR plan. Examples of obstacle intelligence (OBSTINTEL) requirements include--

- Location of existing or reinforcing obstacles.
- Orientation and depth of obstacles.
- Soil conditions (determines ability to use mineplows).
- Lanes or bypass locations.
- Composition of minefields (buried or surface laid antitank and antipersonnel (AP) mines.
- Types of mines and fuzes (determines effectiveness of mechanical or explosive reduction techniques).
- Composition of complex obstacles.
- Location of direct and indirect fire systems overwatching obstacle.

b. **Breaching Fundamentals.** The breach fundamentals--suppress, obscure, secure, reduce, and assault (SOSRA)--always apply; however, they must adapt to the varying factors of METT-TC.

- Suppression protects friendly forces reducing and maneuvering through an obstacle. Successful suppression typically initiates the rest of the actions at the obstacle.
- Obscuration degrades observation and target acquisition of the 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.
- Friendly forces secure the point of breach to prevent enemy forces from interfering with the reduction of lanes and passage of assault forces. The breach force must be resourced with sufficient combat power to secure the point of breach.
- Reduction is the creation of lanes through an obstacle. Reduction can not be accomplished until effective suppression and obscuration is achieved and the point of breach secured. The breach force will reduce, proof, and mark 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.
- The assault force's primary mission is to seize terrain on the far side of the obstacle in order to prevent the enemy from placing or observing direct and indirect fires on the reduction area.

c. **Breaching Organization.** 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 (Table 7-1).

Breaching Organization	Breaching Fundamentals	Responsibilities
Support force	Suppress Obscure	Suppress enemy direct fire systems covering the reduction area. Control obscuring smoke. Prevent enemy forces from repositioning or counterattacking to place direct fires on the breach force.
Breach force	Suppress (provides additional suppression) Obscure (provides additional obscuration in the reduction area) Secure (provides local security) Reduce	Create and mark the necessary lanes in an obstacle. Secure the near side and far side of an obstacle. Defeat forces that can place immediate direct fires on the reduction area. Report the lane status and location.
Assault force	Assault Suppress (if necessary)	Destroy any enemy forces capable of placing direct fires on the reduction area from the far side of an obstacle. Assist the support force with suppression if the enemy is not effectively suppressed. Be prepared to breach follow-on and protective obstacles after passing through the reduction area.

Table 7-1. Breaching organization.

- Support force responsibilities are to isolate the reduction area with direct and indirect fires, suppress enemy's 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 assets to reduce required number of lanes through the obstacle. CFZs should be activated at the point of breach prior to commitment of the breach force to protect it from enemy indirect fires.
- The assault force's primary mission is the destruction of enemy forces on the far side of the obstacle to prevent the enemy from placing direct fires on the breach lanes.

d. **Mass.** The support force achieves mass by fixing and isolating enemy forces on the far side of the obstacle. The breach force achieves mass by planning 50% redundancy of breach assets, creating one vehicle lane per each assaulting company-sized element, and creating two lanes separated by 800 to 1000 meters (terrain dependent) to pass the battalion. 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 battalion breach).

e. **Synchronization.** 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

assembly area), by issuing clear subordinate unit instructions, planning effective C2, and ensuring their forces are well rehearsed.

(1) Detailed reverse planning is initiated during IPB and development of enemy SITEMP. The scheme of maneuver, engineer operations, fires, air defense, and actions at the obstacle are all based upon this common SITEMP. Actions on the objective determine the size and composition of the assault force based upon 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.

(2) Batallion reverse planning begins with actions on the objective and continues to its deployment from tactical assembly areas in order to identify all mobility requirements. Reverse planning should include enemy special munition capabilities and effects (Figure 7-7).
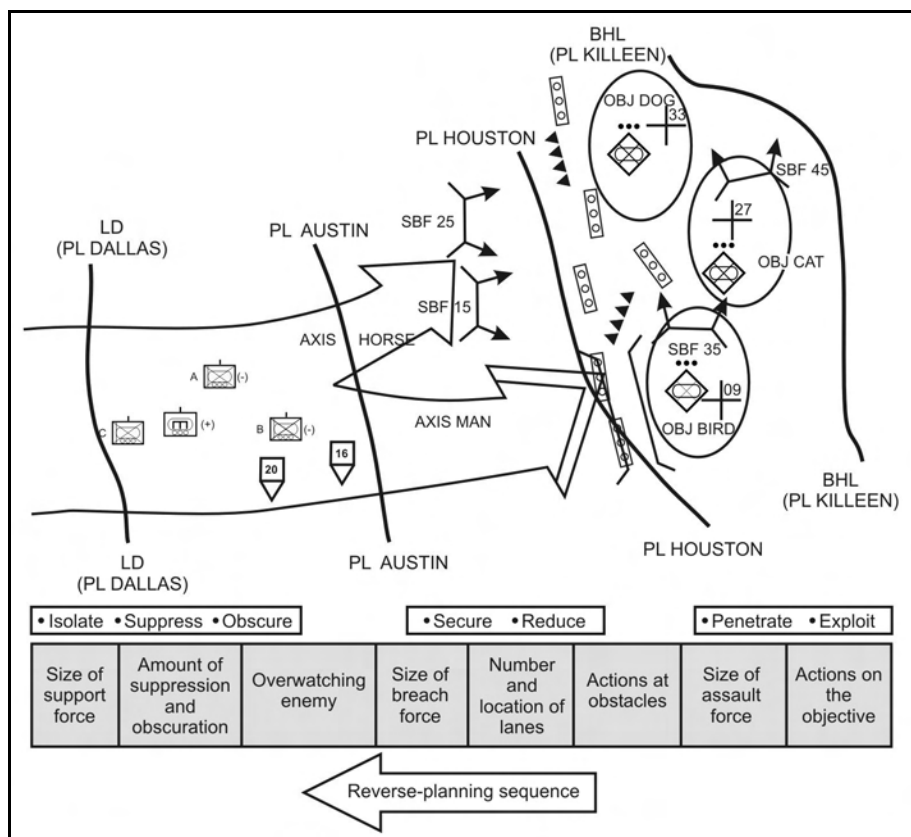
Figure 7-7. Reverse planning sequence.

7-22. COMBINED ARMS BREACH DURING DELIBERATE OPERATIONS
The following paragraphs discuss the detailed planning, preparation, and execution necessary in conducting a combined arms breach during deliberate operations.

a. **Planning.** Planning a breaching operation begins with the command and engineer estimates. The battalion S2 templates the enemy's order of battle (OB), and the engineer assesses its engineer capabilities. Both the engineer and S2 doctrinally template the enemy's tactical and protective obstacles. The staff develops COAs using the templates, and the engineer develops his scheme of engineer operations for each COA. After selecting a COA, the commander must carefully allocate available assets to the breach, assault, and support forces to ensure that they can accomplish their assigned tasks.

(1) Identifying the enemy's vulnerability is important so that the force can mass direct and indirect fires and maneuver against that weakness. The battalion 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.

(2) When the attack requires breaching two or more complex obstacle systems, the commander must retain enough engineers and sufficient breaching assets to reduce subsequent obstacles. The commander must not commit all the engineers to breach the first obstacle system unless he is willing to risk his capability to breach follow-on obstacles. Depleted engineer forces need significantly more time to conduct follow-on breaches.

(3) In task organizing for a combined arms breach during a deliberate operation, the battalion commander considers having a support force task-organized 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 the combat power required to secure the point of breach and the reduction assets required to create the lanes.

(4) The commander maneuvers his combat power to create sufficient suppression and security for the breach to be successful. Adequate suppression, obscuration, and security 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 so he can decisively commit the balance of the force through the obstacle to continue the mission.

(5) The breach and assault forces may require fires and smoke under their control in addition to that controlled by the support force. The 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.

(6) When a battalion conducts a combined arms breach during a deliberate operation or plans to conduct a passage of lines of a large force after a breach, breach plans must include detailed planning for the staging and movement of follow-on forces and equipment.

b. **Preparing.** The battalion continues an aggressive intelligence collection plan using reconnaissance platoons, engineers, patrols, and aerial reconnaissance. The S2 and the battalion engineer continually refine the template based on intelligence. The battalion may adjust task organization as it uncovers more details of the defense and obstacle system. It also uses this information during the combined arms rehearsals.

(1) Continuous and aggressive intelligence-gathering operations update the enemy template as available. These changes are reflected as soon as possible in the rehearsal area. If updates become available after the last possible rehearsal, this data must be passed immediately to the affected force elements, especially the breach force.

(2) The battalion meticulously plans, manages, and controls the rehearsals. The battalion S3 allocates time for each unit to perform a combined arms battalion rehearsal. When possible, the force rehearses the operation under the same conditions expected during the actual engagement, including battlefield obscuration, darkness, NBC posture, and inclement weather. The rehearsal site reflects the actual obstacle system in as much detail as possible. The force chooses terrain as similar as possible to that of the operational area and constructs a practice obstacle system based on OBSTINTEL. Rehearsals include a leader and key personnel walk-through as well as individual rehearsals by support, breach, and assault forces.

(3) When the force commander rehearses the breaching operation, he also rehearses several contingency plans. The contingencies should include possible enemy counterattacks by counterattack forces and attack by enemy indirect fire systems (artillery, rockets, attack helicopters, and other air assets). Rehearsals also include enemy use of NBC munitions.

c. **Collecting Obstacle Intelligence.** The success of combined arms breaching during a deliberate operation depends heavily on the success of the ISR plan. The scheme of maneuver is based on known and templated intelligence of enemy positions and obstacles. NAIs are developed to confirm or deny the template. As intelligence reports come in, the template and ISR plan are updated and revised. The S2 develops the collection plan, with the reconnaissance platoon concentrating on confirming enemy locations. The engineers focus on gathering intelligence on obstacle orientation and composition as well as on the types of fortifications the battalion may encounter. Intelligence is used to refine the task organization of support, breach, and assault forces and the scheme of maneuver.

d. **Executing.** The force crosses the line of departure organized to conduct the combined arms breach. If the battalion encounters obstacles en route, it executes the breach with this organization. On arrival, the battalion's reconnaissance platoon adjusts artillery fires on the enemy positions to cover deployment of the support force. The support force moves into position and establishes its support-by-fire (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 his plan and makes final adjustments of positions and locations.

(1) The support force occupies its SBF position and immediately begins suppressing with a volley of fires. The support force FSE and battalion FSO execute 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 smoke 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.

(2) Once suppression and obscuration have built to effective levels, the breach force moves forward to the breaching site. The engineers create the lanes while the combined

arms breach force provides for local security. As they finish the lanes, engineers create and send a digital overlay to assist the assault and following forces in maneuvering to the lanes. The assault force penetrates the objective after receiving the order from the battalion commander. Due to the complexity of the breach, the command and control systems spread out to ensure synchronization. The battalion S3 controls the multi-company team support force while the battalion commander positions himself where he can best control the entire breaching operation.

e. **Continuing the Attack.** The obstacle system acts as a choke point and is dangerous even after the battalion has overcome the defenses.

(1) The battalion 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 establish the necessary traffic control. Eventually, rear-area engineer forces clear the obstacles and eliminate the choke point. After passage through the lanes, the maneuver force continues its mission.

(2) Both the breaching and follow-on force must be aware of the potential for the enemy to reseed breached obstacles with remotely delivered SCATMINEs or other rapidly emplaced obstacles. The breaching commander may develop a response plan and position remaining mobility assets in the vicinity of the breach lane(s) to rebreach, repair, or improve lanes as necessary. In addition, the commander may develop a reaction plan for maneuver 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 he is about to pass through, should organize mobility assets forward in his formation that are prepared to rebreach, repair, or improve these lanes as necessary.

7-23. COMBINED ARMS BREACH DURING HASTY OPERATIONS

Hasty operations are conducted when the enemy situation is vague and the commander may be required to execute the combined arms breach with his current task organization. Therefore, the battalion commander must either task-organize his subordinate company teams with sufficient combat power to conduct company team-level breaching operations or have a plan that allows for the flexible application of combat power necessary to execute breaching operations.. When conducting offensive operations such as a movement to contact, while participating in an exploitation or pursuit, and when conducting passage of lines (forward or rearward) and movements through defiles, the battalion commander must address breaching operations. The battalion breach planning considerations and process discussed previously apply to combined arms breach planning during hasty operations as well. The only difference is the organizational echelon at which the breach is planned, prepared for, and executed.

a. **Planning.** Breach planning begins with IPB and engineer battlefield assessment (EBA) as part of the command and engineer estimate. The battalion S2 and engineer jointly develop a SITEMP of the enemy disposition, most probable COA, and OBSTINTEL. The SITEMP is the focal point of force allocation and breach planning. If little is known about the situation, the S2 and the engineer identify areas where the enemy is likely to use obstacles or has used obstacles in recent operations. The engineer and S3

should also request information from higher headquarters on recent friendly use of obstacles in the area of operations.

b. **Battalion Task Organization.** Subsequent to COA development, the commander and staff anticipate where units are most likely to encounter obstacles based on the scheme of maneuver and SITEMP. From this analysis, the commander refines his task organization, if necessary, in order to apply the combat power required to execute the templated breach. Additionally, the engineer recommends a task organization of engineer platoons and critical breaching equipment to create enough lanes for the breaching unit. He maintains a mobility reserve under his control that can create additional lanes for follow-on forces. This mobility reserve can also mass mobility assets if the battalion must transition to a deliberate operation. The battalion FSO designs his fire plan to provide priority of fires and smoke to company teams likely to conduct a breach. The air defense officer (ADO) decentralizes the positioning of air defense weapons to provide local coverage of company teams during actions on contact and at obstacles. Above all, the commander task-organizes company teams for the mission first. He then modifies the task organization where necessary to provide company teams with the additional forces needed to conduct independent breaching operations as part of the battalion effort.

c. **Company Team Task Organization.** A battalion plans for the hasty operation breach by appropriately task-organizing subordinate company teams. The subordinate commander develops the details necessary for success. In a battalion hasty operation breach, the company team commander further task-organizes his force and designates specific support, breach, and assault forces. Since conducting the breach involves only committing the combat power within the company team, the team commander incurs the responsibility to develop plans that synchronize the breaching effort and achieve the breaching fundamentals (SOSRA). The assault force moves through the lanes, deploys, and continues the attack to destroy the defending enemy forces. Company team breach planning is deliberate (Table 7-1, page 7-29). It requires the team commander to develop a team scheme of maneuver or an immediate action drill that maneuvers support, breach, and assault forces (platoons) to apply SOSRA breaching fundamentals on obstacle contact. If the enemy situation is unknown, then support, breach, and assault forces execute their missions on order as part of an action-on-contact drill.

CHAPTER 8
STABILITY OPERATIONS

This chapter discusses stability operations at the battalion level and provides planning considerations. US forces are employed in stability operations outside the US and US territories to promote and protect US national interests by influencing political, civil, and military environments and by disrupting specific illegal activities. Army forces must remain versatile and retain the flexibility to transition from the primary mission of close, personal, and brutal fighting of traditional combat to stability operations. The SBCT infantry battalion normally performs stability operations as part of a larger, multinational, or unified team but could be required to work independently.

Army forces are highly suited for stability operations because they are trained, equipped, and organized to control land, populations, and situations for extended periods of time. Army forces engage in stability operations daily around the world. The depth and breadth of Army force abilities provide the combatant commander of a unified command with vital options to meet theater operational requirements. These operations enhance theater engagement and promote regional stability.

Section I. STABILITY OPERATIONS

Stability operations promote and protect US national interest by influencing the threat, political, and information dimensions of the operational environment through a combination of peacetime developmental, cooperative activities, and coercive actions in response to crises (FM 3-0). Army force presence promotes a secure environment in which diplomatic and economic programs designed to eliminate root causes of instability may flourish. Presence can take the form of forward basing, forward deploying, or pre-positioning assets in an AO. Army forces have the ability to establish and maintain a credible presence as long as necessary to achieve the desired results. Army force presence as part of a combatant commander's theater engagement plan (TEP) often keeps situations from escalating into war.

8-1. PURPOSE

The overarching purpose of stability operations is to promote and sustain regional and global stability. These operations may complement and reinforce offensive, defensive, and support operations. Army forces conduct stability operations in crisis situations and before, during, and after offensive, defensive, and support operations. In a crisis situation, a stability operation can deter conflict or prevent escalation. During hostilities, it can help keep armed conflict from spreading and assist and encourage committed partners. Following hostilities, a stability operation can provide a secure environment in which civil authorities can work to regain control. Demonstrating the credible ability to conduct offensive and defensive operations underlies successful stability operations.

    a. Stability operations are inherently complex and place greater demands at the small-unit level. Junior leaders are required to develop engagement skills while maintaining warfighting skills. Capable, trained, disciplined, and high-quality leaders,

soldiers, and teams are especially critical to success. Soldiers and units at every level must be flexible and adaptive. Stability operations often require the mental and physical agility to shift from noncombat to combat operations and back again.

b. Military forces conduct stability operations to accomplish one or more of the activities listed below. These operations demonstrate American resolve through the commitment of time, resources, and forces to establish and reinforce diplomatic and military ties. Stability operations can--

- Protect national interests.
- Promote peace and deter aggression.
- Satisfy treaty obligations or enforce agreements and policies.
- Reassure allies, friendly governments, and agencies.
- Encourage a weak or faltering government.
- Maintain or restore order.
- Protect life and property.
- Demonstrate resolve.
- Prevent, deter, or respond to terrorism.
- Reduce the threat of conventional arms and WMD to regional security.
- Protect freedom from oppression, subversion, lawlessness, and insurgency.
- Promote sustainable and responsive institutions.

c. Stability operations may include both developmental and coercive actions. Developmental actions enhance a host nation government's willingness and ability to care for its people. Coercive actions apply carefully prescribed limited force or the threat of force to change the environment of the AO. For example, rapidly responding to a small-scale contingency operation can diffuse a crisis situation and restore regional stability.

d. Stability operations complement and are complemented by offensive, defensive, and support operations. Stability operations help restore law and order during support operations in unstable areas. Similarly, offensive and defensive operations may be necessary to defeat adversaries intent on preventing the success of a stability operation. The ability of Army forces to stabilize a crisis is related to its ability to attack and defend. For example, shows of force often precede offensive and defensive operations in attempts to deter aggression and provide opportunities for diplomatic and economic solutions.

e. Stability operations vary by type and are further differentiated by the specific factors of METT-TC. The battalion performs many familiar core tactical missions and tasks during stability operations. The purposes of operations, the special constraints on commanders, and the unique missions and tasks, however, differentiate stability operations from other operations.

f. Ideally, the battalion receives advance notice of stability operation missions and has time to modify its mission essential task list (METL) and complete a preparatory training program before deploying. In other cases, the battalion may deploy and assume stability operation responsibilities on short notice. In those cases, the battalion relies on its training in the fundamental tasks (such as command and control, patrolling, reporting, establishing OPs, and maintaining unit security) and trains to specific mission tasks during the operation.

g. In addition to using theater assets, the battalion has the ability to *reach* to information support assets in the continental US (CONUS). The battalion's information

dominance and its systems that rapidly distribute information internally are of great value in stability operations. As in combat operations, digitized units in stability operations must make special provisions for communicating with analog units and systems. In stability operations, commanders must emphasize cooperating and communicating with joint headquarters, multinational units, civilian authorities, and nongovernmental agencies. Additionally, close association with the population of the area of operations typifies many stability operations. The broad imperatives of stability operations are--

- Protect the force.
- Conduct active information operations.
- Maximize joint, multinational, and interagency cooperation.
- Present the clear ability to apply force without threatening its use.
- Apply force as precisely and selectively as possible.
- Understand the potential for grave consequences originating from soldier and small unit actions.
- Act decisively to prevent escalation of violence.

8-2.   CHARACTERISTICS OF STABILITY OPERATIONS

Stability operations are conducted in a dynamic environment. These operations are normally nonlinear and often conducted in noncontiguous areas of operations. They are often time- and manpower-intensive. The commander and staff must analyze each aspect of the mission and adapt the factors of METT-TC to fit the situation. SBCT and subordinate unit missions should be viewed as decisive, shaping, or sustaining operations. Determining and executing the military actions necessary to achieve the desired end state can be more challenging than in situations requiring offensive and defensive operations.

a. **Mission and Enemy.** During all operations, the commander and his staff must constantly assess the situation in terms of the application and interrelation of the factors of METT-TC. However, stability operations often require the application of METT-TC differently than they would when conducting offensive and defensive operations. The "enemy," for example, may be a set of ambiguous but sophisticated threats and potential adversaries. The unit mission may change as the situation becomes less or more stable. A mission can be as simple as conducting a briefing to host nation forces in a military-to military exchange or as difficult as conducting combat operations to accomplish a peace enforcement mission. Stability may be threatened for a number of reasons, and the enemy may be difficult to define or isolate. Depending upon the progress of the operation, the complexity of the mission may change quickly.

Stability operations help restore law and order in unstable areas outside of the US and its territories. However, the mere presence of the SBCT and cooperating forces does not guarantee stability. Offensive and defensive operations may be necessary to defeat enemies that oppose a stability operation. These operations may be required to be executed with significant constraints. The ability of forces to stabilize a crisis is directly related to their perceived ability to attack, defend, and conduct other combat operations as necessary. This agility is a hallmark of the SBCT.

b. **Terrain and Weather, Troops and Support Available.** Different factors may be important when analyzing the terrain and the troops and support available in stability operations. What constitutes key terrain may be based more on political and social considerations than on the physical features of the area of operations. The troops

available may include both organic units and nontraditional assets such as host nation police units, contracted interpreters and laborers, or multinational forces. The level of integration and cohesion of a force composed of diverse assets is a key consideration for mission success.

c. **Time Available and Civil Considerations.** Time considerations normally are substantially different in stability operations. The goals of a stability operation may not be achievable in the short term. Success often requires perseverance and a long-term commitment to solving the real problem. SBCT operations may be part of the continuum of this long-term commitment. The achievement of these goals may take years. Conversely, daily operations may require rapid responses to changing conditions based on unanticipated localized conflict among competing groups. Civil considerations are especially critical in stability operations. The civil population, host nation government, nongovernmental organizations (NGOs), and international organizations can greatly affect the achievement of stability.

d. **Small Unit Leaders.** Stability operations are inherently complex and place great demands on small units and small unit leaders. Small unit leaders may be required to develop or improve interpersonal skills--such as cultural awareness, negotiating techniques, and critical language phrases--while maintaining warfighting skills. They must also remain calm and exercise good judgment under considerable pressure. Soldiers and units at every level must be flexible and adaptive. Often, stability operations require leaders with the mental and physical agility to shift from noncombat to combat operations and back again.

Section II. TYPES OF STABILITY OPERATIONS

Stability operations typically fall into ten broad types that are neither discrete nor mutually exclusive. For example, a force engaged in a peace operation may also find itself conducting arms control or a show of force to set the conditions for achieving an end state. This section provides an introductory discussion of stability operations; for more detailed information, refer to FM 3-0 and FM 100-20. The following are types of stability operations:

- Peace operations.
  - ⇒ Peacekeeping.
  - ⇒ Peace enforcement.
  - ⇒ Operation in support of diplomatic efforts.
- Foreign internal defense.
- Security assistance.
- Humanitarian and civic assistance.
- Support to insurgencies.
- Support to counterdrug operations.
- Combating terrorism.
- Noncombatant evacuation operations.
- Arms control.
- Show of force.

8-3. PEACE OPERATIONS

Peace operations (POs) support strategic and policy objectives and the diplomatic activities that implement them. POs include peacekeeping operations (PKOs), peace enforcement operations (PEOs), and support to diplomatic operations. Although the US normally participates in POs under the sponsorship of the United Nations (UN) or another multinational organization, it reserves the right to conduct POs unilaterally. Optimally, forces should not transition from one PO role to another unless there is a change of mandate or a political decision with appropriate adjustments to force structure, ROE, and other aspects of the mission. Nevertheless, just as in other operations, it is crucial that commanders and staffs continually assess the mission. In POs, this translates into planning for possible or likely transitions. Examples include transitioning from a US unilateral operation or multinational coalition to a UN-led coalition, from combat to noncombat operations, or from military to civilian control.

a. **Peacekeeping Operations.** PKOs are military operations that are undertaken with the consent of all major parties to a dispute and designed to monitor and facilitate implementation of agreements (such as a cease-fire or truce) and to support diplomatic efforts to reach a long-term political settlement (JP 3-07.3). Before PKOs begin, a credible truce or ceasefire is in effect, and the belligerent parties consent to the operation.

(1) In peacekeeping operations, the battalion must use all its capabilities, short of coercive force, to gain and maintain the initiative. The battalion may be assigned a variety of missions designed to monitor peace and stability and to improve the humanitarian environment. The following are examples of PKO missions:

- Deter violent acts by the PKO force's physical presence at critical locations.
- Conduct liaison with disputing parties.
- Verify the storage or destruction of military equipment.
- Verify disarmament and demobilization of selected disputing forces.
- Negotiate and mediate.
- Investigate alleged cease-fire violations, boundary incidents, and complaints.
- Collect information about the disputing forces, using all available assets.
- Contend with ambiguous, tense, or violent situations without becoming a participant, in compliance with the rules of engagement and preparatory training.
- Provide security for prisoner of war exchange.
- Supervise disengagements and withdrawals.
- Assist civil authorities.
- Support local elections.
- Provide relief to refugees and internally displaced persons.
- Assist with demining.
- Restore emergency and basic infrastructure functions.
- Transition to peace enforcement or combat operations. (The battalion must train to ensure that the force has the ability to respond to a contingency plan requiring an increase in the use of force.)

(2) JP 3-07.3, FM 100-23, and FM 100-20 provide additional details on PKO-related tasks. Army forces conducting PKOs rely on the legitimacy acknowledged by all major belligerents and international or regional organizations to obtain objectives. They do not

use force unless required to defend the soldiers or accomplish the mission. Intelligence and information operations are important in PKOs to provide the commander with the information he needs to make appropriate decisions, protect the force, and to ensure the success of subordinate PKO-related efforts.

b. **Peace Enforcement.** PEOs involve the application of military force or the threat of military force to compel compliance with resolutions or sanctions designed to maintain or restore peace and order. By definition, PEOs are coercive in nature and rely on the threat or use of force. However, the impartiality with which the peace force treats all parties and the nature of its objectives separates PEOs from war. PEOs support diplomatic efforts to restore peace and represent an escalation from peacekeeping operations.

(1) In peace enforcement operations, the battalion may use force to coerce hostile factions into ceasing and desisting violent actions. Usually, these factions have not consented to intervention, and they may be engaged in combat activities. A battalion conducting a peace enforcement operation must be ready to apply elements of combat power to achieve the following:

- Forcible separation of belligerents.
- Establishment and supervision of protected areas.
- Sanction and exclusion zone enforcement.
- Movement denial and guarantee.
- Restoration and maintenance of order.
- Protection of humanitarian assistance.
- Relief to refugees and internally displaced persons.
- Support for the return of refugee operations.

(2) The nature of PEOs dictates that Army forces assigned a PEO mission be capable of conducting combat operations. Maintaining and demonstrating a credible combat capability is essential for successful PEOs. Units must be able to apply sufficient combat power to protect themselves and forcefully accomplish assigned tasks. Units must also be ready to transition quickly either to PKOs or to offensive and defensive operations if required.

c. **Operations in Support of Diplomatic Efforts.** Forces may conduct operations in support of diplomatic efforts to establish peace and order before, during, and after a conflict. These operations include preventive diplomacy, peacemaking, and peace building. Military support of diplomatic activities improves the chances for success by lending credibility to diplomatic actions and demonstrating resolve to achieve viable political settlements.

(1) *Preventive Diplomacy.* Preventive diplomacy is diplomatic action taken in advance of a predictable crisis to prevent or limit violence. Army forces are not normally directly involved in preventive diplomacy but may support a State Department effort by providing transportation and communications assets. In some cases, military forces may conduct a preventive deployment or show of force as part of the overall effort to deter conflict.

(2) *Peacemaking.* Peacemaking is the process of diplomacy, mediation, negotiation, or other forms of peaceful settlement that arranges an end to a dispute and resolves the issue that led to the conflict (JP 3-07.3). Peacemaking includes military actions that support the diplomatic process. Army forces participate in these operations primarily by

performing military-to-military contacts, exercises, peacetime deployments, and security assistance. Peacemaking operations also serve to influence important regional and host nation political and military groups.

(3) *Peace Building.* Peace building consists of post-conflict actions, predominately diplomatic and economic, that strengthen and rebuild governmental infrastructure and institutions in order to avoid a relapse into conflict (JP 3-07.3). Military actions that support peace building are designed to identify, restore, and support structures that strengthen and solidify peace. Typical peace-building activities include restoring civil authority, rebuilding physical infrastructure, providing structures and training for schools and hospitals, and helping reestablish commerce. When executing peace-building operations, Army forces complement the efforts of nonmilitary agencies and local governments. Many of the actions that support peace building are also performed in longer-term foreign internal defense (FID) operations.

8-4.   FOREIGN INTERNAL DEFENSE

Foreign internal defense is participation by civilian and military agencies of a government in any action programs taken by another government to free and protect its society from subversion, lawlessness, and insurgency (JP 1-02). The main objective is to promote stability by helping a host nation establish and maintain institutions and facilities responsive to its people's needs. Army forces in foreign internal defense normally advise and assist host-nation forces conducting operations to increase their capabilities.

a.   When conducting foreign internal defense, Army forces provide military supplies as well as military advice, tactical and technical training, and intelligence and logistics support (not involving combat operations). Generally, US forces do not engage in combat operations as part of an FID. However, on rare occasions when the threat to US interests is great and indirect means are insufficient, US combat operations may be directed to support a host nation's efforts. The battalion's primary roles in nation assistance operations are usually similar to its roles in peace-building operations. If involved in these operations, battalions are most likely to provide forces rather than lead the effort themselves.

b.   Army forces that participate in FID normally advise and assist host nation forces conducting operations to increase their capabilities. Army forces conduct FID operations in accordance with JP 3-07.1 and FM 100-20. Army forces provide indirect support, direct support (not involving combat operations), or conduct combat operations to support a host nation's efforts.

(1) *Indirect Support.* Indirect support emphasizes the principles of host nation self-sufficiency and builds strong national infrastructures through economic and military capabilities (JP 3-07.1). Security assistance programs, multinational exercises, and exchange programs are examples of indirect support. Indirect support reinforces the legitimacy and primacy of the host nation government in addressing internal problems.

(2) *Direct Support.* DS provides direct assistance to the host nation civilian populace or military (JP 3-07.1). Examples include civil-military operations, intelligence and communications sharing, and logistics. DS does not usually involve the transfer of arms and equipment or the training of local military forces.

(3) *Combat Operations.* Combat operations include offensive and defensive operations conducted by US forces to support a host nation's fight against insurgents or

terrorists. The use of US forces in combat operations should only be a temporary measure. Direct involvement by the US military can damage the legitimacy and credibility of the host nation government and security forces. Eventually, host nation forces must be strengthened to stabilize the situation and provide security for the populace independently.

c. FID demands a long-term investment. The factors that led to an insurgency or instability compound over time. The host nation and its supporters cannot expect to correct years of problems and their consequences quickly. The affected segments of society must see that the changes are lasting and that they address the problems.

d. US forces must conduct FID operations while subjected to close scrutiny. Hostile information operations will attempt to exploit the presence of foreign troops to discredit the host nation government and the US. Domestic and world opinion may hold the US responsible for the actions of host nation forces as well as American forces.

8-5.   HUMANITARIAN AND CIVIC ASSISTANCE

Humanitarian and civic assistance (HCA) programs provide assistance to the host nation populace in conjunction with military operations and exercises. The very nature of HCA programs frequently dictates that additional engineer units and support capabilities will augment units participating in HCA operations. In contrast to humanitarian and disaster relief operations, HCA are planned activities. HCA programs must be in compliance with Title 10, United States Code, Sections 401,401(E), (5), and Section 2551. For additional information on selected sections of Title 10, US Code for medical support, see Appendix L of FM 8-42. See AR 40-400 for information on emergency medical treatment for local national civilians during stability operations. Humanitarian and civic actions are limited to the following categories:

- Medical, dental, and veterinary care provided in rural areas of a country.
- Construction of rudimentary surface transportation systems.
- Well drilling and construction of basic sanitation facilities.
- Rudimentary construction and repair of public facilities.

8-6.   SUPPORT TO INSURGENCY

The US supports insurgencies that oppose regimes that threaten US interests or regional stability. While any Army force can support an insurgency, Army special operations forces (ARSOF) almost exclusively receive these missions. The US supports only those forces that consistently demonstrate respect for human rights. Given their training, organization, and regional focus, ARSOF are well suited for these operations. While conventional Army forces can be tasked to support an insurgency, they cooperate with insurgents under the command of a ground component or joint force commander. Conventional US forces supporting insurgencies may provide logistic and training support but normally do not conduct combat operations.

8-7.   SUPPORT TO COUNTERINSURGENCY

Military support to counterinsurgencies is based on the recognition that military power alone is incapable of achieving true and lasting success. More specifically, American military power cannot ensure the survival of regimes that fail to meet the basic needs of

their people. Support to counterinsurgency includes, but is not limited to, FID, security assistance, and humanitarian and civic assistance (JP 3-07).

a. The battalion most often conducts counterinsurgency operations by providing security for a host nation. The security operations include security of facilities and installations, defensive operations, and protection of the local population. Its actions directly or indirectly support the host government's efforts to establish itself with the citizens as the legitimate and competent authority in the nation.

b. For American military power to be effective in supporting a counterinsurgency, the supported government must address or revise its policies that affect the disaffected portions of the country's population. Insurgencies are usually a result of the problem, not the cause of it. There will be few immediate, decisive results of operations against insurgent forces. When they do occur, the results are short-lived unless the government acts just as decisively to address the problems that underlie the insurgency.

c. American military programs and actions promote a secure environment in which to implement programs designed to eliminate both the causes of the insurgency and the insurgents. The fundamental cause of large-scale insurgent activities stems from dissatisfaction with standing ethnic, religious, political, social, or economic conditions by some sizable portion of the population.

d. Within the restrictions of international law and US policy, commanders make maximum use of host nation forces and personnel for all possible activities. These include offensive and defensive operations, protection of the civilian populace, security of critical facilities and installations, intelligence and counterintelligence tasks, new construction and reconstruction, psychological operations, police duties, and civil affairs. Ultimately, the host nation, not its American support, must prevail.

e. Army support of counterinsurgencies is conducted in the context of the US ambassador's country plan and the host nation's specific internal defense and development (IDAD) strategy. Its goal is to integrate all resources--civilian and military, public and private--so that defensive and development efforts complement each other and lead to improvement in the economic, social, and political well-being of supported peoples. Army forces can directly assist in development programs by helping government and private agencies provide essential supplies and services.

f. Support to counterinsurgencies helps supported governments deal with the two principal groups involved: the insurgents and the people. Army forces help a supported government protect the people from insurgent violence and separate them from insurgent control. These actions require the use of persuasion, prosecution, and destruction to attack insurgent leadership and organization. The goal is to deny insurgent organizations sources of personnel, materiel, funds, and intelligence.

g. Army forces help the supported government's police, paramilitary, and military forces perform counterinsurgency, area security, or local security operations while respecting the rights and dignity of the people. They provide advice and assistance in finding, dispersing, capturing, and destroying insurgent forces. They emphasize the training of national, state, and local forces to perform essential defense functions. Their aim is to provide a secure environment in which development programs can take effect. Examples of US security assistance programs are Foreign Military Sales, Foreign Military Financing, International Military Education and Training, Economic Support Fund, and commercial sales licensed under the Army Export Control Act.

8-8. SECURITY ASSISTANCE

Army forces support security assistance efforts by training, advising, and assisting allied and friendly armed forces. Security assistance includes the participation of Army forces in any of a group of programs by which the US provides defense articles, military training, and other defense-related services to foreign nations by grant, loan, credit, or cash sales in furtherance of national policies and objectives (JP 3-07).

8-9. SUPPORT TO COUNTERDRUG OPERATIONS

In 1986, the president issued National Security Directive 221, which defines drug trafficking as a threat to national security. It is also a threat to the stability of many friendly nations. Two principles guide Army support to counterdrug (CD) operations. The first principle is to use military capabilities both to benefit the supported agency and to train our soldiers and units. The second is to ensure that military members do not become directly involved in law enforcement activities. Army forces may be employed in a variety of operations to support other agencies that are responsible for detecting, disrupting, interdicting, and destroying illicit drugs and the infrastructure (personnel, materiel, and distribution systems) of illicit drug-trafficking entities.

a. Counterdrug operations are always conducted in support of one or more governmental agencies. These include the Coast Guard, Customs Service, Department of State, Drug Enforcement Agency, and Border Patrol of the Immigration and Naturalization Service. When operating inside the US and its territories, counterdrug operations are considered support operations and are subject to restrictions under the Posse Comitatus Act.

b. Whether operating in the US or in a host nation, Army forces do not engage in direct action during counterdrug operations. Units that support counterdrug operations must be fully aware of legal limitations regarding acquiring information on civilians, both US and foreign. Typical support to counterdrug operations includes the following activities:

- Detection and monitoring.
- Host nation support.
- Command, control, communications, and computers.
- Intelligence support.
- Planning support.
- Logistics support.
- Training support.
- Manpower support.
- Research, development, and acquisition.
- Reconnaissance.

8-10. COMBATTING TERRORISM

Terrorism is the calculated use of unlawful violence or threat of unlawful violence to inculcate fear, intended to coerce or intimidate governments or societies in pursuit of goals that are generally political, religious, or ideological (JP 3-07.2). Enemies who cannot compete with Army forces conventionally often turn to terrorism. Terrorist attacks often create a disproportionate effect on even the most capable of conventional forces. Army forces conduct operations to defeat these attacks. A battalion uses offensive

operations to counter terrorism and defensive measures to conduct antiterrorism operations. The tactics employed by terrorists include, but are not limited to, the following:

- Arson.
- Hijacking.
- Maiming.
- Seizure.
- Assassination.
- Hostage taking.
- Sabotage.
- Hoaxes.
- Bombing.
- Kidnapping.
- Raids and ambushes.
- Use of NBC.

a. **Counterterrorism.** Counterterrorism refers to offensive measures taken to prevent, deter, and respond to terrorism (JP 1-02). Army forces participate in the full array of counterterrorism actions, including strikes and raids against terrorist organizations and facilities. Counterterrorism is a specified mission for selected special operations forces that operate under direct control of the President, Secretary of Defense or under a unified command arrangement.

b. **Antiterrorism.** Antiterrorism includes defensive measures used to reduce the vulnerability of individuals and property to terrorist attacks to include limited response and containment by local military forces (JP 1-02). Antiterrorism is always a mission consideration and a component of force protection. Antiterrorism must be a priority for all forces during all operations--offensive, defensive, stability, and support. US units may be high priority targets for terrorists because of the notoriety and media attention that follows an attack on an American target. Experience shows that sensational acts of terrorism against US forces can have a strategic effect. The 2001 terrorist attacks against the World Trade Center resulted in a change in US policy. Commanders must take the security measures necessary to accomplish the mission by protecting the force against terrorism. Typical antiterrorism actions include:

- Coordination with local law enforcement.
- Siting and hardening of facilities.
- Physical security actions designed to prevent unauthorized access or approach to facilities.
- Crime prevention and physical security actions that prevent theft of weapons, munitions, identification cards, and other materials.
- Policies regarding travel, size of convoys, breaking of routines, host nation interaction, and off-duty restrictions.
- Protection from weapons of mass destruction.

8-11. NONCOMBATANT EVACUATION OPERATIONS

Army forces conduct noncombatant evacuation operations (NEOs) to support the Department of State in evacuating noncombatants and nonessential military personnel

from locations in a foreign nation to the US or an appropriate safe haven. Normally, these operations involve US citizens whose lives are in danger either from the threat of hostilities or from a natural disaster. They may also include selected citizens of the host nation or third-country nationals. The NEO may take place in a permissive, uncertain, or hostile environment and can be either unopposed or resisted by hostile crowds, guerrillas, or conventional forces. Most often, the evacuation force commander has little influence over the local situation. The commander may not have the authority to use military measures to preempt hostile actions, yet he must be prepared to defend the evacuees and his force. A key factor in NEO planning is correctly appraising the political-military environment in which the force will operate. The NEO can be a prelude to combat actions, a part of deterrent actions, or a part of peace operations.

8-12. ARMS CONTROL

Army forces can play a vital role in arms control. Army elements may be involved in locating, seizing, and destroying weapons of mass destruction after hostilities, as they were following Operation Desert Storm. Other actions include escorting authorized deliveries of weapons and materiel (such as enriched uranium) to preclude loss or unauthorized use, inspecting and monitoring production and storage facilities, and training foreign forces in the security of weapons and facilities. Arms control operations are normally conducted to support arms control treaties and enforcement agencies. Forces may conduct arms control during combat or stability operations to prevent escalation of the conflict and reduce instability. This could include the mandated disarming of belligerents as part of a peace operation. The collection, storing, and destruction of conventional munitions and weapons systems can deter belligerents from reinstigating hostilities. Specific Army force capabilities including engineers and explosive ordinance disposal (EOD) personnel are particularly suited to these operations. Companies at checkpoints and conducting patrols have some part to play in controlling, seizing, and destroying weapons. Arms control assists in force protection and increases security for the local populace.

8-13. SHOW OF FORCE

A show of force is an operation designed to demonstrate US resolve that involves increased visibility of US deployed forces in an attempt to defuse a specific situation, that, if allowed to continue, may be detrimental to US interests or national objectives (JP 1-02). The show of force can influence other government or political-military organizations to respect US interests and international law. The battalion may participate in a show of force as part of a temporary buildup in a specific region, by conducting a combined training exercise, or by demonstrating an increased level of readiness. The US conducts shows of force for three principal reasons: to bolster and reassure allies, to deter potential aggressors, and to gain or increase influence.

a. A combatant commander may have established force deployment options as part of an existing contingency plan. These shows of force are designated as flexible deterrence options. For Army forces, show of force operations usually involve the deployment or buildup of military forces in an AO, an increase in the readiness status and level of activity of designated forces, or a demonstration of operational capabilities by forces already in the region.

b. A show of force is designed to demonstrate a credible and specific threat to an aggressor or potential aggressor. The mere presence of forces does not demonstrate resolve or deter aggression. To achieve the desired effect, forces must be perceived as powerful, capable, and backed by the political will to use them. An effective show of force must be demonstrably mission-capable and sustainable.

c. Although actual combat is not desired when conducting a show of force, the battalion commander must be prepared for an escalation to combat. Commanders must organize their units as if they intend to accomplish the mission by the use of force. Units assigned a show of force mission assume that combat is not only possible but probable. All actions ordinarily associated with the projection of a force to conduct combat operations pertain to show of force deployments.

Section III. PLANNING CONSIDERATIONS

Stability operations, with the exception of specific actions undertaken in combating terrorism, support to counterdrug operations, and noncombatant evacuation operations, tend to be decentralized operations over extended distances. As such, the battalion's activities consist largely of separated small-unit operations conducted across an assigned sector or AO. The battalion must conduct these operations with consistency, impartiality, and discipline to encourage cooperation from indigenous forces and garner popular support.

8-14. DECENTRALIZED OPERATIONS

Subordinate commanders need maximum flexibility in executing their missions. Their commander should give them specific responsibilities and ensure they understand his intent.

a. Commanders must achieve mass, concentration, and their objective and must not become so decentralized as to piecemeal their efforts. The battalion's ABCS systems facilitate tracking and supervising this kind of operation by giving battalion commanders unparalleled clarity about their situations.

b. Given the volatile and politically charged nature of most stability operations, 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 understand the potential consequences of the actions they take or fail to take.

8-15. RULES OF ENGAGEMENT

The ROE are directives issued by competent military authority that explain the circumstances and limitations under which US forces initiate and continue combat engagement with opposition encountered. The 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.

a. Tactical and legal channels cooperate closely when formulating ROE. The tacticians, usually represented by the S3, determine the desired intent of the ROE. The staff judge advocate (SJA) puts that intent into legal terms.

b. Generally, the commander permits a wider use of military force in wartime through ROE. The ROE restrict the use of military force 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 a proper government. 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. Even during a single phase of operation, the rules are amended at different levels of command which may result in confusion.

c. 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, battalion should observe that nothing in such rules negates a commander's obligation to take all necessary and appropriate action in unit self-defense, allowing soldiers to protect themselves from deadly threats. The ROE rule out the use of some weapons and 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 battalion deploying for stability operations 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.

d. The ROE are normally developed with political considerations in mind and come from Joint Chiefs of Staff (JCS)-level decisions. 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 weapon systems including NBC, or incidents resulting in loss of life. These situations should be war-gamed and request channels exercised.

e. The ROE are established for, disseminated down to, and understood by individual soldiers. However, the ROE cannot cover 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 including an intent portion that describes the desired end state of the operation as well as conflict termination considerations. These considerations assist commanders and leaders at all levels in situations not clearly addressed in an OPORD.

8-16. RULES OF INTERACTION

The rules of interaction (ROI) embody the human dimension of stability operations; they lay the foundation for successful relationships with the myriad of factions and individuals that play critical roles in these operations. The ROI encompass an array of interpersonal communication skills, such as persuasion and negotiation. These skills are the tools that

the individual soldier needs to deal with the nontraditional threats that are prevalent in stability operations, including political friction, unfamiliar cultures, and conflicting ideologies. In turn, ROI enhance the soldier's survivability in such situations. The ROI are based on the applicable ROE for a certain operation. The ROI must be tailored to the specific regions, cultures, and populations affected by the operation. Like ROE, ROI can be effective only if they are thoroughly rehearsed and understood by every soldier in the unit.

8-17. PROTECTION

Protection has four components: force protection, field discipline, safety, and fratricide avoidance. Force protection, the primary component, minimizes the effects of enemy firepower (including WMD), terrorism, maneuver, and information. Field discipline precludes losses from hostile environments. Safety reduces the inherent risk of nonbattle deaths and injuries. Fratricide avoidance minimizes the inadvertent killing or maiming of soldiers by friendly fires. Force protection requires special consideration in stability operations since threats may be different and, in some cases, opposing forces may seek to kill or wound US soldiers or destroy or damage property for political purposes. Commanders attempt to accomplish a mission with minimal loss of personnel, equipment, and supplies by integrating force protection considerations into all aspects of operational planning and execution. Commanders and leaders throughout the SBCT deliberately analyze their missions and environments to identify threats to their units. They then make their soldiers aware of the dangers and create safeguards to protect them. Commanders must always consider the aspects of force protection and how they relate to the ROE. Some considerations are--

- Secure the inside perimeter if the host nation secures the outside perimeter.
- Avoid becoming a lucrative target and do not become predictable.
- Include security in each plan, SOP, OPORD, and movement order.
- Develop specific security programs such as threat awareness and OPSEC.
- Restrict access of unassigned personnel to the unit's location.
- Constantly maintain an image of professionalism and readiness.
- Consider force protection throughout the range of military operations; base the degree of security established on a continuous threat assessment.
- Force protection consists of OPSEC, deception, health and morale, safety, and avoidance of fratricide.

a. **Operations Security.** OPSEC considerations include the following:

(1) Communications security is as important in stability operations as it is in conventional military operations. Belligerent parties can monitor telephones and radios. However, the need to maintain transparency of the force's intentions in stability operations is a factor when considering OPSEC.

(2) Maintaining neutrality contributes to protecting the force. In stability operations, the entire force safeguards information about deployment, positions, strengths, and equipment of one side from the other. If one side suspects that the force is giving information to the other side, either deliberately or inadvertently, one or both parties to the dispute may become uncooperative and jeopardize the success of the operation, thus putting the force at risk from this loss of legitimacy.

(3) The force must take precautions to protect positions, headquarters, support facilities, and base camps. These precautions may include obstacles and fortifications. Units also practice alert procedures and develop drills to occupy positions rapidly. A robust engineer force provides support to meet survivability needs.

(4) Military police forces establish and maintain roadblocks. If MP forces are unavailable, other forces may assume this responsibility. As a minimum, the area should be highly visible and defensible with an armed overwatch.

(5) The single most proactive measure for survivability is individual awareness by soldiers in all circumstances. Soldiers must look for things out of place and patterns preceding aggression. Commanders should ensure soldiers remain alert, do not establish a routine, maintain appearance and bearing, and keep a low profile.

b. **Health and Morale.** Stability operations often require special consideration of soldier health, welfare, and morale factors. These operations frequently involve deployment to an austere, immature theater with limited life support infrastructure. Commanders must consider these factors when assigning missions and planning rotations of units into and within the theater.

c. **Safety.** Commanders in stability operations may reduce the chance of mishap by conducting risk assessments, assigning a safety officer and staff, conducting a safety program, and seeking advice from local personnel. The safety program should be continuous, beginning with training conducted before deployment. Training includes awareness of the safety risks in the natural environment, terrain and weather, road conditions and local driving habits, access to or possession of live ammunition, unlocated or uncleared mine fields, and special equipment such as armored vehicles and other factors that present special hazards. These other factors may include details on water or waste treatment facilities and other natural or cultural aspects of the area that may constitute a hazard to troops.

d. **Avoidance of Fratricide.** Most measures taken to avoid fratricide in stability operations are no different than those taken during combat operations. However, commanders must consider other factors such as local hires or NGOs or international organizations and civilian personnel that may be as much at risk as US forces. Accurate information about the location and activity of both friendly and hostile forces and an aggressive airspace management plan assist commanders in avoiding fratricide.

8-18. SEQUENCE OF STABILITY OPERATIONS ACTIONS
Stability operations generally follow this sequence:
- Deployment and movement into the AO.
- Establishment of a base of operation.
- Conduct of stability operations.
- Termination of operations.

a. **Deployment and Movement into the Area of Operations.** The commander and staff must plan, synchronize, and control the movement of forces into the AO to maintain the proper balance of security and flexibility. The commander must decide thesequence in which his forces will enter the AO. The SBCT commander must consider the number of suitable routes or lift assets available to meet the movement requirements of his subordinate elements. Other considerations include--

- Road and route improvement and maintenance.
- Construction of routes.
- Clearance of obstacles.
- Repair of bridges and culverts.
- Bridging rivers or dry gaps.
- Establishment of security along routes.
- Traffic control to permit freedom of or restriction of civilian movements along routes.
- Communications architecture.

There may be a need to deploy an advance party heavy with logistical and engineering support into the AO initially if the AO does not have the infrastructure to support the operation. In other circumstances, it may be necessary for the commander and a small group of specialized key personnel, such as attached CA, public affairs, or the SBCT staff judge advocate, to lead an advance party. These personnel will set the groundwork for the rest of the force by conducting face-to-face coordination with local civilian or military leaders. Show of force operations will most likely necessitate that the commander send a large contingent of forces to act as a deterrent and to ensure initial security. In all cases, a well-developed movement order is essential.

b. **Conduct of the Stability Operation.** After the battalion has moved into its AO and established a base for future operations, a continuation of the stability effort commences. To successfully execute the mission, commanders and leaders at all levels must clearly understand the root causes of the conflict. This knowledge enables the battalion leadership to prioritize tasks and begin stability operations. Tactical tasks executed during the stability operation will be dependant upon the factors of METT-TC. Some tasks that have been conducted during recent stability operations are as follows:

- Establishment and enforcement of buffer zones and zones of separation.
- Combat operations including raids, checkpoints, patrols, and reconnaissance and surveillance.
- Support to the host nation.
- Security operations.
- Treaty compliance inspections.
- Negotiation or mediation.

c. **Termination of Stability Operations.** The stability operation may be terminated in several ways. The battalion may be relieved of its mission and conduct a battle handover of the operation to a follow-on force. This force could be another US battalion, a UN force, or a nonmilitary organization. The situation could become stabilized and not necessitate the continuance of operations. In this case, the host nation or domestic community will assume responsibility of stability. The battalion could be redeployed with no follow-on forces and without the area being stabilized. A condition such as this would place the battalion and the SBCT in a vulnerable situation. Security must be intense and the protection of the force during its exit must be well planned and executed. Finally, the SBCT could transition to combat operations. The commander must always ensure that the battalion maintains the ability to transition quickly and forcefully.

d. **Transition to Combat Operations.** If the stability operations are unsuccessful, the battalion may be ordered to transition to tactical combat operations. The commander and staff must always keep in mind that the situation may escalate to full-spectrum

operations at any time. An escalation to combat operations is a clear indicator that the peace enforcement effort has failed. The battalion must always retain the ability to conduct full-spectrum operations. Preserving the ability to transition allows the battalion to maintain the initiative while providing force protection. The commander must task organize the battalion to expeditiously transition to combat operations while maintaining a balance between conducting the stability mission and maintaining a combat posture.

8-19. TASK ORGANIZATION

In conducting stability operations, the battalion commander organizes his assets for the type of mission he must perform, integrating attached assets and the assets from higher headquarters to accomplish the mission. The battalion organization must enable the unit to meet changing situations; thus, the commander must consider which resources to allocate to companies and which to maintain control of at the battalion headquarters. Task organization and support arrangements change frequently during long-term stability operations. Commanders must frequently shift the support of engineers, medical units, and aviation units from one area or task to another. The C2 INFOSYS provide the battalion with an excellent means of tracking and directing operations; therefore, soldiers operating the C2 INFOSYS must be well trained in the use of these valuable systems.

   a. **Augmentation.** The unique aspects of stability operations may require individual augmentees and augmentation cells to support unique force-tailoring requirements and personnel shortfalls. Augmentation supports coordination with the media, government agencies, NGOs, international organizations, other multinational forces, and civil-military elements. METT-TC considerations drive augmentation.

   b. **Liaison.** Commanders may consider task organizing small liaison teams to deal with situations that develop with the local population. Teams can free up maneuver elements and facilitate negotiation. Teams must have linguists and personnel who have the authority to negotiate on behalf of the chain of command. Unit ministry, engineers, CA, counterintelligence, linguistics, and logistics personnel may be candidates for such teams. Commanders must provide augmenting team members with resources and quality of life normally provided to their own soldiers.

8-20. MEDIA CONSIDERATIONS

In today's environment, there are few military operations in which the media are not present with the ability of immediately transmitting what can be seen and heard. The images and words they project are powerful and can affect national policy. In our form of government, the media have the right to cover operations, and the public has a right to know what the media have to say. Many in the media lack a full understanding of the military, but they are the key to information about the Army to the public. Therefore, there are many good things about the Army that are unknown to the public, and commanders and public affairs personnel have a responsibility to tell the Army story. Freedom of the press does not negate the requirement for OPSEC and the accomplishment of the military mission. (See Appendix K.)

   a. **Battalion Objective.** The objective of the battalion commander in dealing with the media is to ensure that battalion operations are presented to the American public and audiences around the world in the proper context. All leaders and soldiers must know how to deal effectively with broadcast and print reporters and photographers. They

should also understand which subjects they are authorized to discuss and which ones they must refer to the public affairs officer (PAO) in support of the SBCT. Educating soldiers and leaders about the positive aspects of a well-informed public is the best way to achieve this objective.

b. **Media Objectives.** Many stability operations are carried out in the full glare of public scrutiny. Knowing this, opponents of the stability effort seize on relatively minor incidents to achieve strategic advantage. Potentially, a single act of indiscipline or rash application of force can undo months and years of disciplined effort. The media might want access to soldiers and units while they grudgingly accept media pools. They expect daily authoritative briefings from operators and leaders. The press wants the GI's perspective and may want to accompany soldiers on missions; it seeks fresh stories every day. The media are particularly interested in excessive civilian casualties, fratricide, and the plight of noncombatants. They want to discuss ROE and issues related to them. Also of media interest are any military-civilian disagreements or conflicts, such as looting, murder, rape, or mistreatment of prisoners. Any civilian opinions blaming US forces for lack of food, fuel, water, or medical care are sure to reach the press. Looming large on the press list is any US casualty figures, both actual and projected.

c. **Media Capabilities.** With available technology, the media have the ability to collect and transmit images and sounds worldwide from any location. They have the ability to cover events quickly and to influence the public either positively or negatively. With interest in worldwide deployments high, the media can send large numbers of reporters to cover the operations in great detail.

d. **Media Realities.** Political sensitivity and media interest are normally quite high in stability operations. The Army cannot and should not control media messages or stories. The media go everywhere they can to uncover unique angles and stories and mistrust or discount official statements or accounts. They resist management and escort, and they try to gather their information first hand. However, most members of the media have not served in the military and do not understand military nuances. In the modern era, it is impossible to keep large-scale military movements quiet. The media speculate on destinations of these moves and the likely missions, which could affect OPSEC. News coverage for deployments is immediate and worldwide. Messages from television and printed press can change policy. Casualties and collateral damage attract enormous attention.

8-21. OPERATIONS WITH OUTSIDE AGENCIES

US Army units conduct certain stability operations in coordination with a variety of outside organizations. These include other US armed services or government agencies as well as international organizations (including NGOs and UN military forces or agencies). Coordination and integration of civilian and military activities must take place at every level. Operational and tactical headquarters plan their operations to complement those of government and private agencies. Likewise, military commanders need to make clear to other agencies their own objectives and operational schemes. Coordinating centers such as the civil-military operations center are designed to accomplish this task. These operations centers should include representatives from as many agencies as required.

Section IV. SPECIFIC CONSIDERATIONS BY BOS

The battalion commander must clearly understand the mission and the situation, and he must ensure his staff and subordinate units understand these as well. He must plan for continuous operations, and, as with offensive and defensive operations, planning and preparation time is often very limited. The plan must facilitate adjustment based on changes in the situation. The commander and his staff must consider--

- The mission: What the force is expected to do.
- The AO (size, location, terrain, and weather).
- The political, economic, military, and geographical situation in their AO.
- Local customs, cultures, religions, ethnic groups, and tribal factions.
- The importance of force protection, OPSEC, physical security, and permissible protection measures.
- The ROE and appropriate actions to take concerning infringements and violations of agreements.
- Physical considerations (such as minefields, bridges, road conditions, and existing infrastructure).
- Security operations.
- Use of additional assets such as intelligence, public affairs, civil affairs, psychological operations, engineers, and MPs.

The battalion commander influences and shapes the AO for mission success by effectively using buffer zones to separate belligerent factions, establishing checkpoints to control movement through and within the battalion area, and conducting cordon and search operations to isolate and locate belligerents. To plan effective stability operations, the commander must consider his AO and the environment. Diplomacy and negotiations assist the battalion in building support from the host nation, in reducing the threat of possible belligerents, and in creating an environment supportive of US actions. All planning should provide a reserve of appropriate size for a quick reaction force to separate hostile parties before potential violent situations grow out of control. The reserve must have the ability to respond anywhere in the battalion area and handle any unforeseen crisis.

8-22. INTELLIGENCE

Reconnaissance plays an important role in the battalion's accomplishment of a stability operations mission. The battalion commander uses every element available to collect information that helps him accomplish his mission. He uses these elements in compliance with the ROE. Every member of the battalion, both soldier and civilian, plays a role in gathering information to support the battalion. The battalion commander uses his battalion S2 and the battalion intelligence section to form a coordinated intelligence production team. They manage the intelligence collection effort to ensure every member of the battalion understands the intelligence required and plays an active role in the collection of that intelligence. Intelligence collection elements normally available to the battalion include the reconnaissance platoon, maneuver companies, elements attached to or supporting the battalion, and soldiers on patrols, in OPs, and at checkpoints.

a. **Other Collection Elements.** In addition to organic elements, the battalion may have interrogation, counterintelligence, other HUMINT elements, or signals intelligence

(SIGINT) elements from the divisional MI battalion, corps MI brigade, or other theater intelligence resources.

b. **Human Intelligence.** The attitudes and perceptions of the local populace in the AO are important in helping the battalion commander decide how to use his forces to accomplish his objectives. Human intelligence, collected by battalion or other supporting or cooperating elements, is a primary means the battalion uses to understand the attitudes and perceptions of the local populace.

c. **IPB Applied to Stability Operations.** The battalion commander uses the IPB process and the intelligence cycle as cornerstones for successful stability operations. They can help the commander determine who the enemy is, what capabilities the enemy has, and where he can find the enemy. They also serve as the basis for creating the battalion concept of operations and allocating combat power available to the battalion. (See FM 34-130 for IPB and how it applies to stability operations.) Although some of the traditional IPB products, such as the warfighting templates, may not be applicable, the methodology remains intact. The development of detailed PIR and IR enables all personnel in the AO to gather critical information to support the battalion. A part of IBP is to assess the area in which the battalion will be operating. (See Table 8-1, page 8-22, for an area assessment checklist.)

AREA ASSESSMENT CHECKLIST
Refugee Interaction
Where are the refugees originally from?
What is the size of the original population?
What are the size and population of the surrounding countryside the village services?
What is the size of the refugee population?
Why did they come here?
What is the relationship of the village with the surrounding villages? Are they related? Do they support each other? Are they hostile? Is any portion of the population discriminated against?
Food and Water
What is the food and water status of the village?
Where do they get their food?
What other means of subsistence are available?
Are the villagers farmers or herders?
What is the status of their crops or herds?
What is the quality of the water source?
Medical
What is the status of the public health system/services for the AO?
How many public health personnel and facilities are available and what are their capabilities?
What is the health and nutritional status of the general population or specified subpopulation?
What are the primary endemic and epidemic diseases and what percent of thepopulation is affected?
What is the leading cause of death for the population or specified subpopulation?
What are the names and titles of key personnel within the public and private health care infrastructure?
Civil-Military/Nongovernmental Organizations
What civilian and military organizations exist in the village or surrounding countryside?
Who are their leaders?
Which organization, if any, does the local populace support?
United Nations or other Relief Agencies
What NATO, UN, or other relief agencies operate in the village?
Who are their representatives?
What services do they provide?
What portion of the population do they service?
Do they have an outreach program for the surrounding countryside?
Commerce
What commercial or business activities are present in the village?
What services or products do they produce?
Miscellaneous
Determine the groups in the village in the most need. What are their numbers? Where did they come from? How long have they been there? What are their specific needs?
What civic employment projects would village leaders like to see started?
Determine the number of families in the village. What are their family names? How many in each family?
What food items are available in the local market? What is the cost of these items? Are relief supplies being sold in the market? If so, what items, from what source, and at what price?
What skilled labor or services are available in the village?
What are the major roads and routes through the village? How heavily traveled are they? Are there choke points or bridges on the routes? Are there alternate routes or footpaths?
What is the size of any transient population in the village? Where did they come from and how long have they been there?

Table 8-1. Area assessment checklist.

d. **Information Operations**. Information operations focus on shaping the ideas, perceptions, and beliefs of friendly, neutral, and belligerent forces. The successful management of information helps give the commander the ability to affect the perception of the local population, belligerent factions, and local leaders and to accomplish his mission. Information management is critical in stability operations, and security of elements which can help manage information is key. The battalion commander may have PSYOP, CA, PA, and OPSEC elements attached or operating in support of his battalion. If he must plan for their use, he must do so in concert with the rules of engagement, the order from higher headquarters, and his operational plan. If these elements are operating in his area, he may be responsible for providing security for them. Sources of information the battalion must use include:

- Neutral parties.
- Former warring factions.
- Civilian populace.
- Other agencies working in the AO.
- Media and information passed from organic and nonorganic assets.

8-23. MANEUVER

Battalion maneuver in stability operations is similar to maneuver in traditional combat operations with extensive emphasis on security. The intent is to create a stable environment that allows peace to take hold while ensuring the force is protected.

a. **Battalion Maneuver.** Maneuver of the battalion in stability operations is often decentralized to the company or platoon level. As required, these units receive relief from support forces such as engineers, logistics, and medical personnel. The battalion commander must be prepared to rely on CS and CSS elements to assist the maneuver forces when the need arises. When new requirements develop, the CS and CSS elements must be ready to shift priorities.

b. **Combat Maneuver.** Maneuver may involve combat. The battalion uses only the level of force necessary to stabilize the crisis. Depending on the ROE, the battalion may precede the use of force with a warning or the use of nonlethal means, employing lethal means only if a belligerent does not stop interfering. The methods employed to reduce the crisis could take the form of separating belligerent forces or maneuvering battalion elements to provide security. A show of force or demonstration may be all that is necessary, or the battalion may employ patrolling, searches, negotiation and mediation, information gathering, strikes and raids, or combat operations to accomplish the mission.

8-24. AVIATION SUPPORT

Aviation units--which can be deployed into the area of operation with early entry ground forces--can be a significant deterrent on the indigenous combatants, particularly if these factions have armored or mechanized infantry forces. Observation or attack helicopters may be employed to act as a TCF or as a reaction force against enemy threats. They may also conduct reconnaissance and surveillance over wide areas and provide the battalion a means for visual route reconnaissance. Utility helicopters provide an excellent enhanced command and control capability to stability operations and may be used to transport patrols or security elements throughout the AO. Medium lift helicopters are capable of moving large numbers of military and civilian peace enforcement personnel and

delivering supplies when surface transportation is unavailable or routes become impassable.

8-25. FIRE SUPPORT

Although FS planning for stability operations is the same as for traditional combat operations, the use of FS may be very restricted and limited. The commander integrates FS into his tactical plan IAW the ROE and restrictions imposed by the AO, such as no-fire zones, presence of noncombatants, and so forth. Special considerations include--
- Procedures for the rapid clearance of fires.
- Close communication and coordination with host country officials.
- Increased security for indirect firing positions.
- Restricted use of certain munitions such as DPICM, area denial artillery munition (ADAM), or remote antiarmor mine (RAAM).

8-26. MOBILITY, COUNTERMOBILITY, AND SURVIVABILITY

Mobility in the battalion AO may be restricted due to poorly developed or significantly damaged road systems, installations, and airfields. Before the battalion can maneuver effectively, it must prepare the AO to support that maneuver. This restricted mobility and need for the battalion to maneuver effectively may cause higher headquarters to augment the battalion with engineer assets.

a. Engineers can play a major role in stability operations by constructing base camps, upgrading the transportation infrastructure, conducting bridge reconnaissance, assisting in civic action by building temporary facilities for the civilian populace, and reducing the mine threat. Factors that help determine the amount of engineer support the battalion receives include:
- Terrain in the AO.
- Type and location of obstacles in the AO.
- Engineer assets available.
- Duration of the operation.
- Environmental considerations.
- Water supply and location.
- Sewage and garbage facilities.
- Local power facilities.
- Fire fighting capability.
- Basic country infrastructure (road, bridge, rail, airfield, and port capability) including contracted engineering support.

b. Regardless of battalion requirements, there may not be enough engineer assets, including civilian contract engineer support, available. This situation requires battalion elements to construct their own fortifications and assist with other engineer tasks within their capabilities. In prioritizing the use of engineers or the use of organic forces to accomplish engineer tasks, the battalion commander emphasizes the strengthening of force protective measures.

8-27. AIR DEFENSE

The air defense officer thoroughly analyzes enemy air capabilities during the initial stages of planning. If an air threat exists or is possible, the ADO must take care to use

organic and any attached ADA elements to combat the threat in full compliance with the ROE. Since a belligerent air capability can disrupt the battalion's entry into and operations in the AO, the battalion must ensure information concerning it remains a priority intelligence collection requirement.

8-28. COMBAT SERVICE SUPPORT
The battalion's ability to sustain itself in the AO depends on the theater's maturity, the CSS structure, and the time flow of forces. Refugees, an inadequate infrastructure, and demands by the host nation and coalition partners can make logistical support complex.

a. **General Principles.** General principles to consider when planning CSS for stability operations include--

- Ability to implement logistical support in any stability operations area.
- Ability of the battalion to provide its own support.
- Ability of higher headquarters to provide support.
- Availability of local supplies, facilities, utilities, services, and transportation support systems by contract or local purchase.
- Availability of local facilities such as LOCs, ports, airfields, and communications systems.
- Local capabilities for self-support to facilitate the eventual transfer of responsibilities to the supported nation for development or improvement.
- Availability of resources.

b. **Augmentation.** To make up for inadequate logistical and health service infrastructures in the AO, the battalion may be augmented with additional CSS elements. Some or all of these CSS elements may precede combat or CS elements into the AO. In addition to supporting the battalion, CSS elements may provide support for--

- Allied or indigenous governmental agencies.
- Allied or indigenous civilians.
- Allied or indigenous military forces.
- US governmental agencies.
- US civilian agencies and personnel.
- Other US military forces.
- US-backed personnel and organizations.
- International civilian and governmental agencies.

c. **Health Service Support.** In stability operations, the brigade deploys with its organic medical assets. In addition, the BSB medical company will be augmented with a forward surgical team and a forward support medical evacuation team (FSMT). Health service support for the SBCT in stability operations is dependent upon the specific type of operations, anticipated duration of the operations, number of personnel deployed, evacuation policy, medical troop ceiling, and anticipated level of violence. Additional HSS requirements could include veterinary services, preventive medicine (PVNTMED), hospital, laboratory, combat and operational stress control, and dental support. For definitive information on HHS for stability operations, see FM 8-42. See AR 40-400 for information on emergency medical treatment for local national civilians during stability operations.

d. **Contracting.** Contracting can be an effective force multiplier and can augment existing CSS capabilities. Weak logistical infrastructures in the AO may make it

necessary to use contracting for some supplies and services. If he knows that contracting functions may have to be performed, the battalion commander obtains guidance from higher headquarters concerning contracting during the initial planning stages. Hostilities can cause interruptions in the delivery of any contracted services, such as food and water, so the battalion must be prepared to support itself and provide necessary support to attached and supporting forces and the local populace for limited periods of time. A good plan anticipates large consumption rates of supplies in Classes I, III, IV, and VIII and provides for reserve stockage of nonperishables.

8-29. COMMAND AND CONTROL
Battalions and brigades do not normally perform the function of a joint headquarters. If there is no JTF for the operation, a command and control element from the division performs the role of the JTF to integrate the other services. This allows the battalion to focus on the control of its companies.

a. **Command and Support Relationships.** The ambassador to the country is responsible for US operations, both civilian and military, except for military forces under the command of a regional combatant commander. The ambassador heads a country team that interfaces with civilian and military agencies. The term *country team* describes in-country interdepartmental coordination among the members of the US diplomatic mission. Examples of team members are as follows:

- Economic officer.
- Director of United States Agency for International Development (USAID).
- Commercial attaché.
- Agriculture attaché.
- Department of State.
- Chief, Security Assistance Office (SAO).

(1) The US area military commander is not a member of the diplomatic mission. The JTF interfaces with the senior military defense representative on the country team. If there is no JTF, division or battalion headquarters may be responsible for interface with the country team and host nation.

(2) Command and control headquarters may be unilateral or established with the host nation. An interagency headquarters of civilian and military forces also includes police, paramilitary, security, and even other US agencies. The headquarters must coordinate operations with civilian agencies to ensure no conflict of political and military objectives.

(3) The Agency for International Development and the public affairs section coordinate civil affairs and PSYOP initiatives in and out of country through the JTF. The SBCT and SBCT infantry battalion conduct detailed coordination to ensure the purpose of current PSYOP and civil affairs efforts is understood. This situation may influence the planning, preparation, and execution of operations.

(4) If a battalion follows a SOF unit or operation during a deployment, it should request a liaison before arrival in the operational area. The battalion coordinates with SOF through the JTF. If there is no JTF, the unit contacts the SOF through the security assistance office.

b. **End State.** The commander develops and articulates a desired end state in terms of the military and desired socioeconomic conditions that have the greatest potential for lasting stability in the area. The commander and his staff determine the required sequence

of tasks and objectives the battalion must accomplish to meet the end state. Other critical actions include moving into the AO, establishing a base of operation and sustainment for the battalion, and implementing appropriate force protection policies. As the immediate situation stabilizes, the battalion conducts follow-on actions to restore order and local government, assist in repairing infrastructure, remove weapons, and disarm factions. The commander and staff assign objectives and AOs, allocate forces, and establish control measures for subordinate forces to accomplish their missions.

(1) To keep the battalion focused throughout the operation, the commander and his staff develop a concept of the operation that establishes objectives and timelines to meet the desired end state. The concept should cover the entire duration of the operation from deployment to the end state, defining how the battalion will accomplish its assigned mission. The commander uses FRAGOs and subsequent OPORDs to control execution of each phase of the operation and various missions as required.

(2) The commander and his staff coordinate battalion plans and actions with the higher headquarters, adjacent units, and government and nongovernmental organizations in the AO to ensure unified effort. Use of liaison officers is vital for this requirement.

c. **Communications.** Communications abilities are augmented to effect long-range communications and proper liaisons. The commander and his staff consider equipment compatibility, crypto use, information sharing, and security measures when working with SOF, joint forces, and multinational forces.

d. **Intelligence Considerations.** The battalion performs IPB and uses IPB products and the intelligence estimate to portray the enemy and the environment for the commander. The intelligence effort must be continuous. (See FM 34-130 for more information on IPB.) Population status, ethnicity, and socioeconomic factors take on increasing importance. Enemy doctrinal information may be scarce. HUMINT is a major focus, and the intelligence effort must be continuous. (See FM 34-130 for more information on IPB for stability and support operations.)

(1) *Organizations.* Organization sources include all host-country military and civilian intelligence systems as well as US intelligence sources.

(2) *Collection.* Tactical collection includes all sources. Technological capabilities may not provide a significant advantage in some environments. HUMINT is a major focus and often the main source of intelligence. An intelligence database may or may not apply or be available to the tactical commander. Every soldier can collect and report important information.

(3) *Restrictions.* Internal and external restrictions may exist on the dissemination of information. Gathering information on and within another country in operations other than war has political sensitivity.

(4) *Emphasis.* The intelligence effort must have continued emphasis. Before force commitment, the battalion must effectively collect, process, and focus intelligence to support all planning, training, and operational requirements. During execution, intelligence determines the proper course of action.

Section V. TECHNIQUES

The different techniques the battalion utilizes to accomplish its mission during stability operations are patrols, observation posts, providing security to officials, static security posts, searches, roadblocks, and checkpoints. Additionally, indigenous authorities or

other high-ranking officials may require the protection of the battalion during movement through or within the area of operations.

8-30. PRESENCE PATROLS

The battalion may direct its subordinate companies to conduct specific patrols throughout the AO. These patrols may be conducted overtly using available transportation assets (air or ground) or on foot. Although the patrols are conducted overtly, the companies take all precautions to protect the soldiers on patrol. A patrol must be readily identifiable as such by all parties and must conduct movement openly. The patrol wears distinctive items of uniform, such as the American flag and non-subdued unit patches.

a. Patrols can accomplish the following:
* Deter potential truce violations by maintaining a presence.
* Cover gaps between fixed observation posts.
* Confirm reports from observation posts.
* Investigate alleged breaches of the armistice.

b. A patrol must do the following:
* Avoid deviating from the planned route.
* Record in writing and sketch all observations.
* Halt when challenged, identify itself, and report any attempt to obstruct its progress.
* Record any changes in the disposition of the opposing forces.

8-31. OBSERVATION POSTS

Observation posts are an especially important element of the battalion's effort to establish and maintain OPSEC. OPs provide protection when long-range observation from current positions is not possible. The battalion can employ any number of OPs, either mounted or dismounted, as the situation dictates.

a. OPs are sited for maximum view of the surrounding area, for clear radio communications, and for defensibility. OP locations are recorded, and the commander must authorize any relocation. Soldiers man the OPs at all times. Access is limited to authorized personnel only. One squad usually mans an OP and keeps a record of all activities. Soldiers are continuously accountable for weapons and ammunition. During rotation to relieve soldiers in an OP, the incoming and outgoing soldiers conduct a joint inventory for the record. If soldiers in the OP discharge weapons, they report this immediately to headquarters and make a written record of the circumstances. (SOPs include details on these and similar matters.) The mission of the OP is to report the following:
* Movement of belligerent military forces, including unit identification, time, direction, and other details that the OP can ascertain.
* Shooting, hostile acts, or threats directed against the peacekeeping force or civilians.
* Any improvement to defensive positions of a former belligerent.
* An overflight by unauthorized aircraft, either military or civilian, including the time, direction, aircraft type, and nationality.
* Any observed violations of an armistice agreement.

b.   The peacekeeping force relies on the goodwill of the former belligerent parties for its safety. Conspicuous marking on installations, vehicles, and personnel are a source of protection. The peacekeeping force maintains its legitimacy and acceptability to the former belligerents through its professional, disinterested, and impartial conduct of the peacekeeping mission. However, factions in the former belligerents' armed forces, in the civilian population, or among other interested parties may want to disrupt the peacekeeping operation and subvert the diplomatic process. Therefore, the peacekeeping force must be prepared to defend itself.

c.   The battalion must strictly follow the ROE and limitations on the use of force. Each unit must maintain a ready reserve that can reinforce an OP or aid a patrol in distress. Field fortifications, barriers, and well-sited weapons must protect installations, and the battalion must take precautions to protect personnel and facilities from terrorist attacks. The peacekeeping force must fight defensive engagements only if they cannot avoid such engagements. The commander must be prepared to recommend withdrawal of the force when a serious threat appears.

8-32.   SECURITY OF OFFICIALS

The battalion may be required to ensure that indigenous authorities or other high-ranking officials may move within the area of operation without interference from hostile agents.

a.   The strength of the security element required depends on the circumstances.

b.   The battalion security force should provide an armored vehicle as optional transportation for the official(s).

c.   Additional modes of transportation must provide support to the vehicle carrying the official(s) throughout the move. Each of the additional vehicles should have automatic weapons and soldiers designated to perform specific security tasks for the officials.

d.   The vehicle carrying the official(s) should bear no distinguishing marks and more than one vehicle of that type should travel in the escort.

e.   The security element designated to accompany the official(s) must be capable of extracting the official's vehicle out of the danger area as quickly as possible in the event of an attack. The security element must develop and rehearse contingency plans, alternate routes, and actions on contact.

f.   Before starting the move, the security element commander briefs the official(s) about what will be done in the event of an attack. Regardless of the official's seniority, the security element commander is in command of the move.

8-33.   STATIC SECURITY POSTS

A static security post is any security system organized to protect critical fixed installations--military or civil--or critical points along lines of communication such as terminals, tunnels, bridges, and road or railway junctions (Figure 8-1, page 8-30).
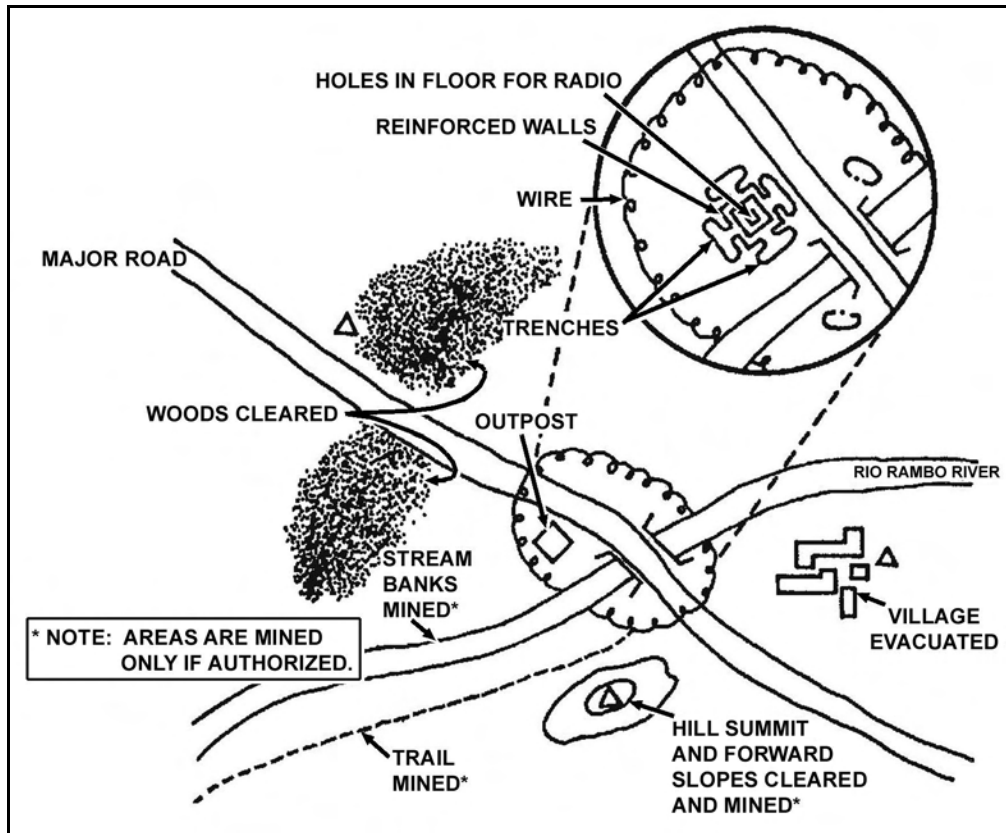
Figure 8-1. Security post.

a.   The size of the post depends on the mission, the size and characteristics of the hostile force, the attitude of the civil populace, and the importance of the item being secured. The post varies from a two-man bridge guard to a reinforced company securing a key communications center or civilian community. The battalion coordinates establishment of security posts with the host nation.

b.   The organization of a static security post varies with its size, mission, and distance from reinforcing units. For security reasons, static security posts in remote areas are larger than the same type post would be if located closer to supporting forces. It is organized for the security of both the installation and the security force. The battalion must establish reliable communications between remote static security posts and the parent unit's base.

c.   The battalion must control access to the security post by indigenous personnel. It screens and evacuates people living near the positions and can place informers from the local population along the routes of approach.

d.   The commander must give all possible consideration to soldier comfort during the organization and preparation of the security post. Even under the best conditions, morale suffers among soldiers who must operate for prolonged periods in small groups away from their parent organization.

e.   If the static security post is far removed from other battalion units and might be isolated by enemy action, the battalion prestocks sustaining supplies there in sufficient quantities. A static security post should never have to depend solely on the local populace for supplies.

8-34. SEARCHES

Searches are an important aspect of populace and resource control. The need to conduct search operations or to employ search procedures is a continuous requirement. A search can orient on people, materiel, buildings, or terrain. A search usually involves both civil police and soldiers.

a. **Planning Considerations.** Misuse of search authority can adversely affect the outcome of operations. Soldiers must conduct and lawfully record the seizure of contraband, evidence, intelligence material, supplies, or other minor items for their seizure to be of future legal value. Proper use of authority during searches gains the respect and support of the people.

(1) Authority for search operations is carefully reviewed. Military personnel must perform searches only in areas in military jurisdiction (or where otherwise lawful). They must conduct searches only to apprehend suspects or to secure evidence proving an offense has been committed.

(2) Search teams have detailed instructions for handling controlled items. Lists of prohibited or controlled-distribution items should be widely disseminated and on hand during searches. The battalion contacts military or civil police who work with the populace and the resource control program before the search operations begin (or periodically if search operations are a continuing activity). Units must consider the effect of early warning on the effectiveness of their operation.

(3) Language difficulties can interfere when US forces conduct search operations involving the local populace. The US units given a search mission are provided with interpreters as required.

(4) The battalion conducts search operations slowly enough to allow for an effective search but rapidly enough to prevent the enemy from reacting to the threat of the search.

(5) Soldiers use minimum-essential force to eliminate any active resistance encountered.

(6) Searchers can return to a searched area after the initial search to surprise and eliminate insurgents or their leaders who might have either returned or remained undetected during the search.

(7) The battalion should develop plans for securing the search area (establishing a cordon) and for handling detained personnel.

b. **Procedures.** Search procedures are as follows:

(1) *Search of Individuals.* In all search operations, leaders must emphasize the fact that anyone in an area to be searched could be an insurgent or a sympathizer. To avoid making an enemy out of a suspect who may support the host country government, searchers must be tactful. The greatest caution is required during the initial handling of a person about to be searched. One member of the search team covers the other member, who makes the actual search. (FM 19-40 and STP 19-95B1-SM discuss the procedure for searching people.)

(2) *Search of Females.* The enemy can use females for all types of tasks when they think searches might be a threat. To counter this, use female searchers. If female searchers are not available, use doctors, aidmen, or members of the local populace. If male soldiers must search females, take all possible measures to prevent any inference of sexual molestation or assault.

(3) *Search of Vehicles.* The search of vehicles may require equipment such as detection devices, mirrors, and tools. Specially trained dogs can locate drugs or explosives. A thorough search of a vehicle is a time-consuming process, and leaders must consider the effect on the population. Use of a separate vehicle search area can help avoid unnecessary delays.

(4) *Search of Built-Up Areas.* These searches are also referred to as cordon-and-search operations. The principles, command and control, and procedures for this type of search are discussed in the following paragraph. When intelligence identifies and locates members of the insurgent infrastructure, an operation is mounted to neutralize them. This operation should be done by police acting on the warrant of a disinterested magistrate and based on probable cause. In the more violent stages of an insurgency, emergency laws and regulations may dispense temporarily with some of these legal protections. Use the least severe method to accomplish the mission adequately. Take care to preserve evidence for future legal action.

c. **Cordon and Search.** The commander should divide the area to be searched in a built-up area into zones and assign a search party to each zone. A search party consists of a security element (to encircle the area, to prevent entrance and exit, and to secure open areas), a search element (to conduct the search), and a reserve element (to assist either element, as required) (Figure 8-2 and Figure 8-3).

(1) *Establishing the Cordon.* An effective cordon is critical to the success of the search effort. Cordons are designed to prevent the escape of individuals to be searched and to protect the forces conducting the operation. In remote areas, the battalion may establish the cordon without being detected. The use of limited visibility aids in the establishment and security of the cordon but makes it difficult to control. The battalion must enforce the ROE and should develop plans to handle detained personnel. Infantrymen accompany police and intelligence forces to identify, question, and detain suspects. Infantry may also conduct searches and assist in detaining suspects, under police supervision, but their principal role is to reduce any resistance that may develop and to provide security for the operation. Use of force is kept to a minimum. Deployment for the search should be rapid, especially if the enemy is still in the area to be searched. Ideally, the entire area should be surrounded at once. Observed fire covers any gaps. The security element surrounds the area while the search element moves in. Members of the security element orient mainly on people evading the search in the populated area. The security element can also cut off any insurgents trying to reinforce others within the area, isolating the search area internally and externally. Checkpoints and roadblocks are established. Subsurface routes of escape in built-up areas, such as subways and sewers, may also need to be searched and blocked.
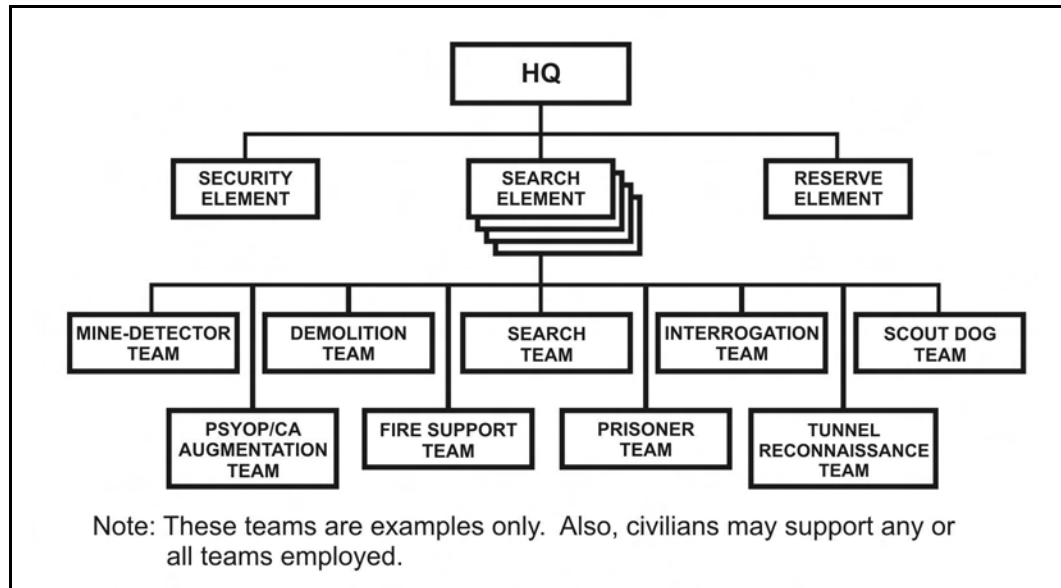
Figure 8-2. Typical organization for search operations.

Note: These teams are examples only. Also, civilians may support any or all teams employed.

The area is isolated at once using multiple routes. Contact patrols screen between observation posts. Underground passages are blocked.

The area is divided into subareas. A subarea is assigned to each search element. Control of civilians is established using one or more search methods.

Figure 8-3. Conduct of a search.

(2) *Conducting the Search*. A search of a built-up area must be conducted with limited inconvenience to the populace. The search should inconvenience the populace enough for them to discourage insurgents and sympathizers from remaining in the locale but not enough to drive them to collaborate with the enemy as a result of the search. A large-scale search of a built-up area is a combined civil police and military operation. Such a search should be planned in detail and rehearsed while avoiding physical reconnaissance of the area just before the search. Aerial photographs can provide information needed about the terrain. In larger towns or cities, the local police might have detailed maps showing relative sizes and locations of buildings. As with any Army operation, mission analysis is critical. For success, the search plan must be simple and the search conducted swiftly. The search element is organized into teams. These teams can

include personnel and special equipment for handling prisoners, interrogations, documentation (using a recorder with a camera), demolitions, PSYOP and civil affairs, mine detection, fire and effects, employment of scout dogs, and tunnel reconnaissance. Three basic methods are used to search the populated area.

(a) Assemble inhabitants in a central location if they appear to be hostile. This method provides the most control, simplifies a thorough search, denies insurgents an opportunity to conceal evidence, and allows for detailed interrogation. Depending on the objective of the search, a personnel search team may be necessary in this central location. This method has the disadvantage of taking the inhabitants away from their dwellings, thus encouraging looting, which, in turn, engenders ill feelings. The security element is then responsible for controlling the inhabitants. The search element may escort individuals back to their dwellings to be present during the search or may leave them in the central location.

(b) Restrict inhabitants to their homes. This prohibits movement of civilians, allows them to stay in their dwellings, and discourages looting. The security element must enforce this restriction. The disadvantages of this method are that it makes control and interrogation difficult and gives inhabitants time to conceal evidence in their homes.

(c) Control the heads of the households. The head of each household is told to remain in front of the house while everyone else in the house is brought to a central location. The security element controls the group at the central location, controls the head of each household, and provides external security for the search team. During the search, the head of the household accompanies the search team through the house. Looting is reduced, and the head of the household sees that the search team steals nothing. This is the best method for controlling the populace during a search.

(3) *Searching a House.* The object of a house search is to look for controlled items and to screen residents to determine if any are suspected insurgents or sympathizers. A search party assigned to search an occupied building should consist of at least one local policeman, a protective escort for local security, and a female searcher. If inhabitants remain in the dwellings, the protective escort must isolate and secure the inhabitants during the search. Escort parties and transportation must be arranged before the search of a house. Forced entry may be necessary if a house is vacant or if an occupant refuses to allow searchers to enter. If the force searches a house containing property while its occupants are away, it should secure the house to prevent looting. Before US forces depart, the commander should arrange for the community to protect such houses until the occupants return.

d. **Other Considerations.** The reserve element is a mobile force positioned in a nearby area. Its mission is to help the search and security elements if they meet resistance beyond their ability to handle. The reserve element can replace or reinforce either of the other two elements if the need arises. Soldiers should treat any enemy material found, including propaganda signs and leaflets, as if it is booby-trapped until inspection proves it safe. Underground and underwater areas should be searched thoroughly. Any freshly excavated ground could be a hiding place. Soldiers can use mine detectors to locate metal objects underground and underwater.

e. **Aerial Search Operations.** Helicopter mounted patrols escorted by armed helicopters take full advantage of the mobility and firepower of these aircraft.

(1) The helicopter mounted patrols may conduct reconnaissance of an assigned area or route in search of enemy forces. When the element locates an enemy force, it may instruct the armed helicopters to engage the enemy force or they may land and engage the enemy by means of a ground assault. This technique has little value in areas of dense vegetation or when a significant man-portable air defense threat is present.

(2) Helicopter mounted patrols should be used only when sufficient intelligence is available to justify their use. Even then, ground operations should be used in support of the helicopter mounted patrols.

f. **Apprehended Insurgents.** Certain principles govern actions taken when insurgents desert or surrender voluntarily and indicate, at least in part, their attitudes and beliefs have changed. In this situation, the following guidelines apply.

(1) Confine them only for screening and processing, and keep them separate from prisoners who exhibit no change in attitude.

(2) Supervise them after their release. The supervision need not be stringent and is best accomplished by host nation authorities, if possible.

(3) Relocate them if they are in danger of reprisal from the enemy.

(4) Remember they expect any promises made to induce their defection or surrender to be met.

(5) Provide special handling to nonindigenous members of the insurgency who were captured.

g. **Captured Insurgents.** Captured insurgents who retain their attitude of opposition are handled IAW the following principles:

(1) These insurgents must be confined for long periods.

(2) Captured insurgents charged with specific crimes are brought to justice immediately. Each is charged for their individual crimes. They are not charged for their participation in the resistance movement because that could make them martyrs and cause other insurgents to increase their activities.

(3) Families of imprisoned insurgents may have no means of support. Provide adequate support through programs of care and reeducation.

8-35. ROADBLOCKS AND OTHER CHECKPOINTS

A related aspect of populace and resource control mentioned previously is the control of transportation. Individuals and vehicles may be stopped during movement to assist in individual accountability or capture of enemy personnel or to control the trafficking of restricted material. The ability to establish roadblocks and checkpoints is an important aspect of movement control and area denial. The fundamentals of searches, discussed previously, apply to roadblocks and checkpoints also. (FM 8-10 provides more information about roadblocks and checkpoints.)

a. Roadblocks and checkpoints help prevent traffic in contraband and stop the movement of known or suspected insurgents. They should be manned by police or paramilitary forces, which stop vehicles and pedestrians and conduct searches as required by conditions. They must take care to maintain legitimacy by not targeting specific groups. Either host country or US Army combat forces defend these roadblocks and checkpoints from enemy attack. If police strength is insufficient for the number of positions required, the Army can operate them. Whenever US Army forces operate roadblocks and checkpoints, host country police or other forces should be present to

conduct the actual stop and search. US forces should establish communications with other elements of the site but should also remain in contact with their own chain of command. The same principles apply to waterways as to landlines of communication.

b. Establish roadblocks in locations where approaching traffic cannot observe them until it is too late to withdraw and escape. Narrow defiles, tunnels, bridges, sharp curves, and other locations that channel traffic are the preferred sites. Constructed, nonexplosive obstacles slow traffic, restrict it to a single lane, and bring it to a halt. An area off the main road should be used to conduct a detailed search of suspect vehicles and people and to avoid unduly delaying innocent traffic. A small reserve using hasty field fortifications in nearby defended areas should provide immediate support to operating personnel in case of attack. A larger reserve, which serves a number of posts, should be capable of rapid reinforcement (Figure 8-4).

c. US forces should fill the reserve role in combined operations with host nation personnel. The reserve is vulnerable to being set up or ambushed, especially if an enemy has observed rehearsals. The enemy may hit multiple locations simultaneously to test responsiveness or to aid his future planning. Forces should vary locations of roadblocks and routes used.
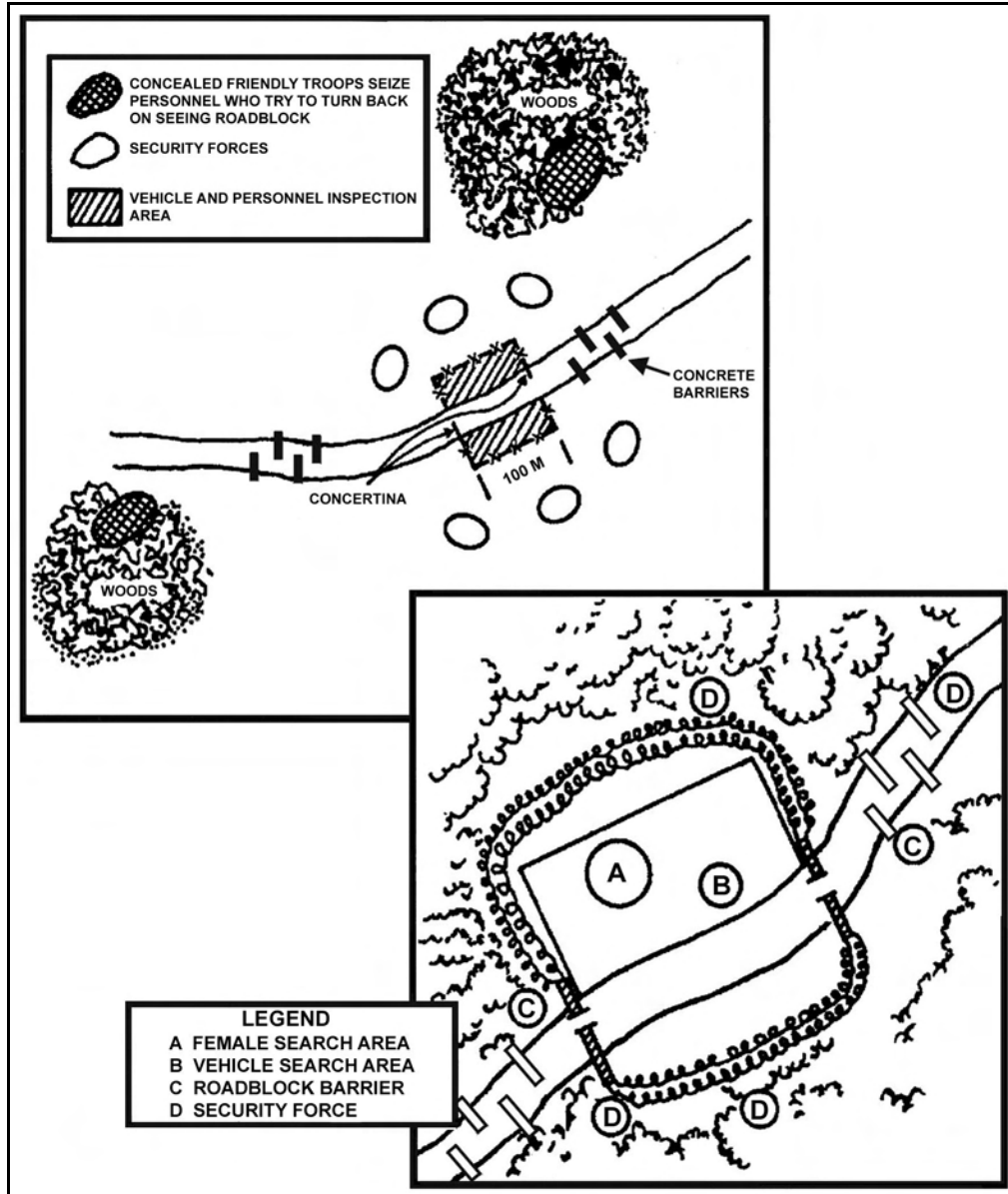
Figure 8-4. Physical layout of roadblock.

CHAPTER 9
SUPPORT OPERATIONS

The overall purpose of support operations is to meet the immediate needs of designated groups, for a limited time, until civil authorities can accomplish these tasks without Army assistance. In support operations, Army forces provide essential services, assets, or specialized resources to help civil authorities deal with situations beyond their capabilities. Army forces may provide relief or assistance directly, when necessary, but they normally support the overall effort controlled by another agency. In support operations, the adversary is often disease, hunger, or the consequences of disaster. Support operations may complement tactical operations or stability operations, or they may be conducted as separate missions. Most tactical operations require complementary support operations before, during, and after combat. For instance, the battalion may have to assist civilian firefighters during combat if fire threatens its tactical position or freedom of action.

Because of their greater combat potential, digitized SBCT infantry battalions are normally committed to tactical operations for as long as fighting continues. Nonetheless, their commanders can expect to participate in support operations with other units from time to time. Their special ability to track forces, handle large amounts of information, and conduct precise logistical operations gives digitized units special advantages in support operations.

Support operations missions vary by type and are further differentiated by the specific factors of METT-TC. Support operations usually require the battalion to perform common tactical missions and tasks but also call on it to execute unique missions and tasks. The purposes of support operations, the special constraints they place on commanders, and the types of judgments expected of battalion commanders and their subordinates distinguishes support operations from other operations.

Section I. CHARACTERISTICS OF SUPPORT OPERATIONS

Support operations involve Army forces providing essential supplies, capabilities, and services to help civil authorities deal with situations beyond their control. In most cases, Army forces focus on overcoming conditions created by natural or manmade disasters. Army forces may provide relief or assistance directly, but Army activities in support operations most often involve setting the conditions that facilitate the ability of civil authorities or NGOs to provide the required direct support to the affected population.

9-1. TYPES OF SUPPORT OPERATIONS

The two types of support operations are domestic support operations (DSOs) and foreign humanitarian assistance (FHA) operations. They share four forms of operations, which occur to varying degrees in both DSO and FHA operations:

- Relief operations.
- Support to incidents involving chemical, biological, radiological, nuclear, and high-yield explosive consequence management (CBRNE-CM).
- Support to civil law enforcement.
- Community assistance.

The US Army conducts DSOs in the US and its territories, using active and reserve components. It conducts FHA operations abroad and under the direction of a combatant commander. Domestic emergencies can require Army forces to respond with multiple capabilities and services. For this reason, they may conduct the four forms of support operations simultaneously during a given operation.

a. **Domestic Support Operations.** DSOs supplement the efforts and resources of state and local governments and NGOs within the United States. During DSOs, the US military always responds in support of another civilian agency. DSOs also include those activities and measures taken by the Department of Defense (DOD) to foster mutual assistance and support between DOD and any civil government agency in planning or preparedness for, or in the application of resources for response to, the consequences of civil emergencies or attacks, including national security emergencies or major disasters. A presidential declaration of an emergency or disaster area usually precedes a DSO.

(1) The US military provides domestic support primarily in accordance with a DOD directive for military assistance to civil authorities. The military assistance to civil authorities directive addresses responses to both natural and manmade disasters and includes military assistance with civil disturbances, counterdrug activities, counterterrorism activities, and law enforcement.

(2) In accordance with the Constitution, civilian government is responsible for preserving public order. However, the Constitution does allow the use of military forces to protect federal and civilian property and functions. The Posse Comitatus Act restricts the use of the military in federal status and prevents it from executing laws and performing civilian law enforcement functions within the US.

(3) DSOs focus on the condition of all types of natural and manmade properties, with the goal of helping to protect and restore these properties as requested. Typically, environmental operations are conducted in response to such events as forest and grassland fires, hazardous material releases, floods, and earthquakes.

b. **Foreign Humanitarian Assistance.** US forces conduct FHA operations outside the borders of the US or its territories to relieve or reduce the results of natural or manmade disasters or other endemic conditions, such as human suffering, disease, or deprivation, that might present a serious threat to life or that can result in great damage to or loss of property.

(1) The US military typically supplements the host nation authorities in concert with other governmental agencies, nongovernmental organizations, private voluntary organizations, and unaffiliated individuals. The majority of foreign humanitarian assistance operations closely resemble domestic support operations. The distinction between the two is the legal restrictions applied to US forces inside the US and its territories. Posse Comitatus does not apply to US forces overseas.

(2) Foreign humanitarian assistance operations are limited in scope and duration. They focus exclusively on prompt aid to resolve an immediate crisis. Crises or disasters caused by hostile individuals or factions attacking a government are normally classified

as stability rather than support operations. In environments where the situation is vague or hostile, support activities are considered a subset of a larger stability or offensive or defensive operation.

9-2. THE ARMY'S ROLE IN SUPPORT OPERATIONS

The Army is not specifically organized, trained, or equipped for support operations. Instead, Army elements and forces, tailored for warfighting, are rapidly adapted to dominate a crisis or disaster situation. In support operations, Army forces apply decisive military capabilities to set the conditions for the supported civil authorities to achieve success. Army forces have a functional chain of command, reliable communications, and well-trained, well-equipped forces that can operate and sustain themselves in an austere environment with organic assets.

a. **Multiple and Overlapping Activities.** In most situations, Army forces involved in support operations, both DSO and FHA, execute a combination of multiple overlapping activities. Forces must conduct support operations with consistency and impartiality to encourage cooperation from indigenous forces and the population and to preserve the legitimacy of the overall effort. The actions of squads, platoons, or even individual soldiers take place under the scrutiny of many interested groups and can have disproportionate effects on mission success. Therefore, high levels of discipline, training, and a thorough understanding of mission outcome are necessary for effective support operations.

b. **Mission Training.** A sound foundation in combat mission training and in basic military skills and discipline underpins the battalion's ability to perform support operations missions, but many of the key individual and collective skills differ and must be trained for deliberately. Battalions use most of their regularly trained movement and security tasks in support operations missions, but they modify those tasks for the special conditions of their mission. They also train leaders and soldiers for unique tasks necessary to the certain types of operation that they are assigned.

c. **Operational Environment.** The mission, the terms governing the Army's presence in the AO, the character and attitude of the population, the military and civilian organizations cooperating with the battalion, the physical and cultural environments, and a host of other factors combine to make each support operations mission unique. With the exception of specific actions undertaken in counterterrorism operations, support to counterdrug operations, and noncombatant evacuation operations, support missions tend to be decentralized and highly structured. A battalion's activities consist in large part of directing the operations of its companies and supporting units within a sector or AO in accordance with a detailed operations order.

9-3. FORMS OF SUPPORT OPERATIONS

Support operations may be independent actions, or they may complement offensive, defensive, and stability operations. Most offensive, defensive, and stability operations require some form of support operations before, during, and after execution. Support operations generally fall into four categories:

- Relief operations.
- Support to incidents involving WMD.

- Support to civil law enforcement.
- Community assistance.

a. **Relief Operations.** In general, the actions performed during relief operations are identical in both domestic support operations and foreign humanitarian assistance operations. The actions can be characterized as either humanitarian relief, which focuses on the well-being of supported populations, or disaster relief, which focuses on recovery of critical infrastructure after a natural or manmade disaster. Relief operations accomplish one or more of the following:

- Save lives.
- Reduce suffering.
- Recover essential infrastructure.
- Improve quality of life.

(1) *Disaster Relief.* Disaster relief encompasses those actions taken to restore or recreate the minimum infrastructure to allow effective humanitarian relief and set the conditions for longer-term recovery. This includes establishing and maintaining minimum safe working conditions, plus security measures necessary to protect relief workers and the affected population from additional harm. Disaster relief may involve repairing or demolishing damaged structures; restoring or building bridges, roads, and airfields; and removing debris from critical routes and relief sites.

(2) *Humanitarian Relief.* Humanitarian relief focuses on life-saving measures to alleviate the immediate needs of a population in crisis. It often includes the provision of medical support, food, water, medicines, clothing, blankets, shelter, and heating or cooking fuel. In some cases, it involves transportation support to move affected people from a disaster area.

b. **Support to Domestic CBRNE Consequence Management.** Military operations assist civil authorities in protecting US territory, population, and infrastructure prior to an attack by supporting domestic preparedness and critical asset protection programs. If an attack occurs, military support responds to the consequences of the attack.

(1) *Domestic Preparedness.* The Army's role in facilitating domestic preparedness is to strengthen the existing expertise of civil authorities. This is accomplished in the two primary areas of response and training. Response is the immediate reaction to an attack; training includes what happens after the attack.

(2) *Protection of Critical Assets.* The purpose of this program is to identify critical assets and to assure their integrity, availability, survivability, and capability to support vital DOD missions across the full spectrum of military operations. Critical assets include telecommunications, electric power, gas and oil, banking and finance, transportation, water, and emergency services. An attack on any of these assets may disrupt civilian commerce, government operations, and the military.

(3) *Response to CBRNE Incidents***.** The initial response to the use of WMD is primarily from local assets but sustained Army participation may be required soon afterward. The Army's capabilities in this environment are--

- Detection.
- Decontamination and medical care.
- Triage and treatment.
- MEDEVAC.

- Hospitalization (patient decontamination for self-evacuation).
- Technical consultation to commanders and local health care providers on health effects of WMD incidents.

c. **Support to Civil Law Enforcement.** Support to domestic civil law enforcement generally involves activities related to counterterrorism, counterdrug operations, civil disturbance operations, or general support. Army support may involve providing resources, training, or direct support. Federal forces remain under the control of their military chain of command at all times while providing the support.

(1) *Support to Counterterrorism.* Army forces do not conduct domestic counterterrorism, but they may provide support to lead federal agencies during crisis and consequence management of a terrorist incident. They may provide assistance in the areas of transportation, equipment, training, and personnel. When terrorists pose an imminent threat to US territory, its people, or its critical assets, the US military may conduct support operations to counter these threats, using ground, air, space, special operations, or maritime forces. The Federal Bureau of Investigation (FBI) is responsible for crisis management in the US.

(2) *Support to Counterdrug Operations.* Army support to domestic counterdrug operations is very limited and usually only in a support role.

(3) *Civil Disturbance Operations.* The Army assists civil authorities in restoring law and order when local and state law enforcement agencies are unable to resolve a civil disturbance. Federal Army forces assist in restoring law and order when the magnitude of a disturbance exceeds the capabilities of local and state law enforcement agencies, including the National Guard. Army participation is to apply the minimum force necessary to restore order to the point where civilian authorities no longer require military assistance.

(4) *General Support.* The Army may also provide training, share information, and provide equipment and facilities to federal, state, and local civilian law enforcement agencies.

d. **Community Assistance.** Community assistance is a broad range of activities designed to strengthen the relationship between the Army and the American people. These projects should exercise individual soldier skills, encourage teamwork, challenge leader planning and coordination skills, and result in accomplishments that are measurable. Example activities include youth physical fitness programs, medical readiness programs, and antidrug programs.

Section II. PLANNING CONSIDERATIONS

The planning and execution of support operations are fundamentally similar to planning, preparing, executing, and assessing offensive, defensive, and stability operations. However, while each support operation is unique, the following four broad considerations can help forces develop mission-specific concepts and schemes for executing support operations.

9-4. CONSIDERATIONS FOR SUPPORT OPERATIONS

Whether they confront the complications of floods, storms, earthquakes, riots, disease, or other humanitarian crises, the SBCT infantry battalion combines the usual strengths of the mounted and dismounted forces. Although it has limited numbers of medical and

engineer elements, the battalion brings to the operation its outstanding abilities to organize and supervise operations, collect and distribute information, and communicate, as well as large numbers of highly disciplined and motivated soldiers. The following four broad imperatives that pertain to support operations help forces plan and execute support operations:

- Provide essential support to the largest number of people.
- Coordinate actions with other agencies.
- Establish measures of success.
- Transfer responsibility to civilian agencies as soon as possible.

a. **Provide Essential Support to the Largest Number of People.** Commanders must allocate finite resources to achieve the greatest good. Additionally, commanders require an accurate assessment of what needs to be done on order to employ military power effectively. In some cases, the battalion can accomplish this task using warfighting reconnaissance capabilities and techniques. Commanders determine how and where to apply limited assets to benefit the most people in the most efficient way. They usually focus initial efforts on restoring vital services, which include food and water distribution, medical aid, power generation, search and rescue, and firefighting.

b. **Coordinate Actions with Other Agencies.** Domestic support operations are typically joint and interagency; foreign humanitarian assistance operations are usually multinational as well. Unity of effort between the military and local authorities requires constant communication to ensure that tasks are conducted in the most efficient and effective way and resources are used wisely.

c. **Establish Measures of Effectiveness.** A critical aspect of mission handover is to have objective standards for measuring progress. These measures of effectiveness determine the degree to which an operation is accomplishing its established objectives. For example, a measure of effectiveness might be a decrease in the number of deaths caused by starvation. This is an indicator that food convoys are reaching the designated areas. These measures are situationally dependent and must be adjusted as the situation changes and guidance from higher is developed.

d. **Transfer Responsibility to Civilian Agencies as Soon as Possible.** Support operations planning must always include the follow-on actions of the civilian agencies and the host nation to restore conditions to normal. The following considerations determine handover feasibility:

- Condition of supported population and governments.
- Competing mission requirements.
- Specified and implied commitment levels of time, resources, and forces.
- Maturity of the support effort.

9-5. PLANNING PROCESS

The battalion staff uses the standard Army planning process modified for use with the ABCS.

a. **Special Considerations.** The battalion planning staff must understand the following special considerations:

- Specialized support operations terminology in the mission and tasks assigned to the battalion for purposes of mission analysis and course of action development.
- Command relationships, especially in multinational operations and in support to US civil authorities.
- Presence of, activities of, and the battalion's relationship to nongovernmental organizations and private voluntary organizations in the AO.
- The political, economic, military, and environmental situation in the AO.
- Local customs, cultures, religions, ethnic groups, tribes, and factions.
- Force protection measures.
- ROE and other restrictions on operations.
- Terrain, weather, infrastructure, and conditions unique to the AO and the nature of the operation.
- Security operations.
- Availability or need for specialized units such as public affairs, CA, PSYOP, chemical defense, engineers, MPs, and others.

b. **Attached Elements.** Battalions involved in support operations are normally reinforced with engineers and may also have troops attached. MPs, additional HSS personnel, and CA, public affairs, and PSYOP teams often support battalions in support operations. Since these units are not commonly part of battalions in combat operations, the staff and company commanders should learn the organizations, capabilities, limitations, and specific missions of attached organizations before employing them. In some cases, protecting those elements imposes additional loads on the maneuver companies. Additionally, if attached units do not possess FBCB2, they need liaison teams or instrumented units of the battalion to accompany them.

c. **Digital Systems.** The battalion staff uses the standard Army planning process modified for use with the C2 INFOSYS. The net effect of digitization in SBCT infantry battalions is the increase in their abilities to receive and distribute information, to develop plans more quickly, and to execute and modify operations more effectively than their analog counterparts. The battalion's C2 INFOSYS facilitate tracking and supervising support operations by giving battalion and company commanders timely intelligence and highly accurate information about their own dispositions. The reduced time required for force tracking and status reporting gives the commanders and battalion staffs better information and more time to anticipate future events. Special uses for the C2 INFOSYS, such as tracking supplies for humanitarian operations and recording area damage or contamination from storms or accidents, also give the battalion advantages.

9-6.   COMMAND AND CONTROL

Standard command and staff doctrine applies to support operations command and control. Orders, estimates, planning guidance, rehearsals, and backbriefs are all useful in directing support operations. The need for mutual understanding between all members of the command group is as great in support operations as in combat operations.

a. **Cooperation.** As in other cases, cooperation with foreign headquarters and other services or agencies imposes special requirements for training, coordination, and liaison. Multiservice and multinational operations in which the battalion controls troops of other services or nations or is subordinate to another nation's or service's command call for

special attention to command relationships and limitations on the commander's prerogatives.

b. **Communications.** The battalion's command and control systems yield significant advantages in planning and conducting support operations. Operation of these systems depends on communications architecture provided by the SBCT or by another higher level of command. Use of nontactical or other nonstandard communications is likely in a multinational operation or in support to civil authorities in the US. If this is the case, then battalion commanders and staff leaders need training in operating these tools. In the early and concluding stages of an operation, the signal structure may permit only limited use of the C2 INFOSYS. The battalion's plan for command and control must take that into account and provide for alternate means of communication or full reliance on tactical systems. Digitized connectivity to higher levels of command and to the information support structure multiplies the effectiveness of the battalion and must be established as soon as possible.

c. **Liaison Teams.** Digitally equipped liaison teams can be extremely useful in providing a common view of the situation for headquarters attached to the battalion. Battalions must staff their authorized liaison teams and identify their needs for additional teams as early as possible.

9-7. MANEUVER

Digitized battalions may be accustomed to operating with minimal control measures in their tactical training. In support operations, where area responsibilities, movements, and control of terrain are sensitive and hazards are sometimes widely scattered, the battalion needs detailed information on its AO and commonly uses detailed control measures. Battalion leaders must clearly delineate and ensure soldiers throughout the battalion understand routes, installations, hazards, the geographical responsibilities of companies, boundaries, and other control measures. Leaders must also clearly communicate special control measures, such as curfews, restrictions on movements, and prohibition of weapons, to all concerned.

a. **Dispersed Operations.** Typically, support operations missions call for dispersed operations. The MCS-Light and FBCB2 systems provide timely and accurate force tracking and facilitate reporting. In sensitive movements such as transport of hazardous materials or escorting disaster victims through dangerous areas, C2 INFOSYS tracking provides immediate information on progress. It frees leaders from most routine reporting and permits them to concentrate on more sensitive aspects of their mission. Faster movement of information concerning maneuver also facilitates faster reaction to threats and allows forces in motion to be routed around new hazards more responsively than is possible in an analog force.

b. **C2 INFOSYS Database.** If the battalion is augmented with special purpose units or with substitute mission vehicles, this affects digitized force tracking. The C2 INFOSYS databases must be updated to include additional elements, including the addition of IP addresses.

9-8. INTELLIGENCE

Intelligence collection and distribution systems facilitate support operations in the same general way they support other operations. The S2 uses the battalion's organic collection

assets to gather critical information on enemy or criminal forces and on the AO, according to the PIR established by the commander. The S2 then distributes intelligence to the battalion as it is developed. The battalion's ASAS-Light workstation is an important means of maintaining a current view of the situation. In support operations conducted where combat is not taking place, there may be no enemy force present. The battalion never conducts intelligence operations during operations in the US. Additionally, intelligence operations during some multinational operations and most UN operations are proscribed or severely limited. In some cases, intelligence operations may be replaced with neutral, self-defensive information collection operations.

9-9. INTELLIGENCE, SURVEILLANCE, AND RECONNAISSANCE

A coordinated intelligence, surveillance, and reconnaissance effort is as critical to the battalion's success in support operations as during combat operations.

a. **Information Collection.** Information collection is a constant process that is guided by the commander's critical information requirements and is normally embodied in the ISR plan. The commander may employ reconnaissance troops, electronic sensors, patrols, engineers, liaison teams, and so forth to achieve his ISR aims. The battalion's reconnaissance platoon plays a special role in ISR, but every soldier and unit in the battalion has some responsibility for observing and reporting. Therefore, the battalion commander's PIR, focus for collection, and the associated ISR tasks must be known throughout the battalion and revised as often as necessary to assure that soldiers know what information is of greatest importance.

(1) *Collection Assets.* The SBCT calvary squadron (RSTA), with its UAVs and other electronic sensors, can directly support the battalion commander's PIR. However, in order to receive useful information from those assets, the battalion must specifically request ISR support. Without specific ISR tasks, the cavalry squadron (RSTA) is unlikely to provide the specific supporting information required by the battalion.

(2) *Human Intelligence.* Human intelligence is especially important during support operations. In many cases, TAC HUMINT specialists augment the SBCT. The battalion S2 normally receives some support from these teams and must be knowledgeable in their employment.

b. **Intelligence Production and Dissemination.** Intelligence production and dissemination is just as important during support operations as during other operations. The S2 uses the battalion's assigned, attached, and supporting collection assets to collect critical information on enemy forces and on the AI, according to the PIR established by the commander. The S2 then disseminates intelligence to the battalion as it is produced. The battalion's ASAS-Light workstation is an important means of maintaining a current view of the situation. It is important to note that intelligence operations during some multinational operations and most UN operations are proscribed or severely limited. In some cases, intelligence operations may be replaced with information collection operations.

9-10. FIRE SUPPORT

Basic fire planning considerations for direct and indirect fire weapons remain valid during support operations. FS plans in support operations are integrated into tactical or force protection operations as the situation warrants. Accuracy and timeliness assume

greater than normal importance in actions of support operations because of the importance of safeguarding the population and preventing collateral damage. The AFATDS gives the commander and the FSE exceptionally clear and timely information on all aspects of FS. Fire planners in the digitized FSE must make special provisions for integrating fires from analog units, from fire support units of other armies, and from the naval and air components.

9-11. MOBILITY AND SURVIVABILITY
Mobility and survivability generally constitute major activities in support operations missions, especially at their outset. Force protection may make large initial demands on both combat and construction engineers during FHA missions. Mobility for the force and the population is also an early issue in many support operations as roads and bridges require repair, rubble clearing, and hazardous area marking or clearing. Battalions can expect heavy commitments to securing engineer operations in the early stages of operations where enemy interference is possible. Even in mature support operations, engineer operations typically remain very active.

a. **Engineer Digital Tools.** The engineers of digitized forces employ software that facilitates managing and recording engineer work and posting results to MCS-Light and FBCB2. They also have access to topographic tools and engineer data electronically from anywhere in the world. These capabilities are of great value during support operations in managing engineer work, adjusting priorities, projecting needs, and informing their units and the population of the status of engineer projects.

b. **Battalion Engineer.** Support operations are commonly supported with a great number of attached combat engineer units as well as construction engineers and contracted civilian engineers. Several engineer companies may support a battalion conducting support operations; if so, the senior engineer company commander normally serves as the battalion engineer.

9-12. AIR DEFENSE
SBCT infantry battalions in support operations integrate air defense plans into tactical or force protection operations as the situation warrants. Battalions must optimize passive defense and must nominate vulnerable sites in their AOs for ADA protection where threats exist.

9-13. COMBAT SERVICE SUPPORT
Combat service support for support operations usually requires substantial tailoring to adapt to unique mission requirements; logistical requirements vary considerably between types of support operations. Support operations commonly take place in areas where local resources and infrastructure are scarce, damaged, or fully devoted to the civilian population.

a. **CSSCS.** The digitized division's CSS system uses automation--CSSCS and related standard Army management information system (STAMIS)--and other advanced technologies to reduce the size of its support structure. The SBCT's habitually associated BSB is larger and more complex than its predecessors, and the logisticians' abilities to maintain visibility of their assets and to direct supplies and services directly to users has been improved.

b. **CSS Challenges.** The chief CSS challenges of support operations are to anticipate needs and to integrate nondigital units and sources into the support operation. Information needs include--

- Resources available in-theater.
- Status of critical supply items and repair jobs.
- Nature and condition of the infrastructure.
- Capabilities of general support CSS units.
- Mission tasks.
- Overall material readiness of the battalion.

c. **Contracting.** In some cases, contracting can augment organic CSS. Battalions may encounter contractor-provided services and supply operations in support operations environments. The S4 and commander must understand the terms and limitations of contractor support.

d. **Health Service Support.** The battalion deploys with its organic medical assets for support operations. In addition, the SBCT is normally augmented with a forward surgical team (FST) and an FSMT (corps air ambulances). The battalion may be augmented with additional HSS assets to support the battalion's mission. Support operations may include disaster relief and refugee operations. Medical treatment provided in support of these operations must be in compliance with Title 10 of the US Code. See FM 8-42 for HSS support of disaster relief or refugee operations. The brigade support medical company (BSMC) may require a humanitarian augmentation medical equipment set, unit assembly 1623, to perform its support operations mission. Key personnel (health care providers) should review the set prior to deployment to provide for contingencies and mitigate (add or delete items) so that the level and types of medical supplies in the set conform to the mission requirements.

e. **Liaison with Civil Authorities.** Nonstandard supporting relationships and close coordination with civil authorities demand use of digitized liaison teams to assure their greatest usefulness. They can also demand the creation of additional liaison teams that may have to operate without digital equipment.

9-14. INFORMATION OPERATIONS

Information operations shape the perceptions of friendly, neutral, and hostile forces. The force commander employs PSYOP, CA, public affairs, and OPSEC as part of his information operation. The battalion commander supports the higher commander's IO, carrying out tasks assigned to him and acting independently within the higher commander's intent and the constraints of his own resources. Because support operations are complex, usually decentralized, and often critical to the force's perceived legitimacy, continuity and consistency in IO are extremely important. The battalion must present its position clearly to assure that the interested public, both in the US and in the AO, understand it. The commander must be aware of theater positions and interests and of the effects of events on the perceptions of his troops, his opponents, and the population in general. He must understand the positions of and information environment created by--

- Neutral parties.
- Warring or formerly warring factions.
- The population and its major segments.
- Other agencies working in the AO.

- Media.
- Information gathered by elements of the battalion.

NOTE: In support operations conducted in the US, information operations do not include PSYOP. Rather, they consist of public affairs and any necessary OPSEC.

9-15. OTHER PLANNING CONSIDERATIONS

Planning for support operations missions may include additional considerations.

a. **Force Protection.** Force protection requires special consideration in support operations because threats may be different and because, in some cases, enemy or criminal forces may seek to kill, wound, or capture US soldiers for political purposes. Battalion leaders must identify threats to their units, make soldiers aware of the dangers, and create safeguards to protect them. Terrorist and guerrilla operations are of special concern. Commanders must also consider environmental threats such as diseases and climatic hazards; special dangers such as chemical contamination, unexploded ordnance, and weakened bridges and buildings; and criminal violence.

b. **Force Guidelines and Rules of Engagement.** Limitations on action from orders and ROE are the norm in support operations. Broad limitations may consist of restrictions on mounted patrolling at particular times and in specified areas, prohibitions on crossing political boundaries, and requirements to refrain from apprehending or limiting the movement of designated groups or individuals. They may originate in law, treaty, and settlement terms and in commanders' guidance. While ROE vary considerably among situations, they always allow soldiers to protect themselves from deadly threats.

c. **Legal Restrictions.** Legal restrictions apply to all Army operations including support operations. Legal restrictions relevant to support operations missions may include the Law of Land Warfare, the Uniform Code of Military Justice, treaty agreements, and federal, state, and foreign law. The SBCT and higher staff judge advocates play important roles in planning and conducting these missions. In some cases, the JAG provides DS to the battalion in the form of legal officers or enlisted legal assistants.

d. **Media Interest.** Media interest in support operations is normally high. Casualties and damage attract immediate attention and can affect the public's perception of the success and discipline of the force. A battalion's soldiers and leaders must be sensitive to civilian concerns, media interests, and the way political positions of factions in the AO affect their actions.

e. **Information Dominance.** Superior information allows the battalion commander to anticipate developments and act to prevent incidents, to protect his soldiers or the population, and to forestall greater loss or damage. To a greater extent than its analog counterparts, the battalion has direct access to information from higher echelon sources. It can also distribute critical information with greater speed in greater detail to its companies and platoons. Maintaining information dominance requires careful analysis of the battalion's information needs and a mission-specific IPB supported by a collection plan that fully utilizes all the battalion's organic and supporting assets. The ISR analysis platoon and ISR integration platoon of the MICO support the battalion commander's information needs and contribute to his understanding of the situation by integrating and

analyzing information collected from the SBCT's various intelligence sources (HUMINT, SIGINT, UAVs, and so forth).

Section III. PATTERN OF OPERATIONS

While support operations vary greatly in every mission, the SBCT infantry battalion can expect events to follow a broad pattern of response, recovery, and restoration.

9-16. RESPONSE

As part of a response, the battalion enters the affected area, normally under SBCT control, and makes contact with other relief organizations. Planning for the operation, staging command posts into the area, establishing security, deploying the battalion, and initiating contacts with supported activities and other parts of the relief force occur during this phase of operations. The battalion may make its chief contributions in this phase. Its soldiers are usually among the first relief forces to arrive. Its command and control structure gives it robust early ability to communicate and coordinate. Further, the battalion's ability to reconnoiter and gather information make it useful in the initial efforts of authorities to establish understanding and control of the area and to oversee critical actions. Typical requirements of the response period are--

- Search and rescue.
- High volume emergency medical treatment.
- Hazard identification.
- Initiation of information operations.
- Food and water distribution.
- Collection of displaced people in temporary shelter.
- Support to law enforcement agencies.
- Repair of power generation and distribution systems.
- Clearance and repair of roads, railways, and canals.
- Firefighting, NBC and hazardous industrial waste decontamination, and flood control.

9-17. RECOVERY

Once the battalion operation is underway, recovery begins. With initial emergencies resolved and a working relationship between all parties in place, there should be steady progress in relieving the situation throughout this phase of operations. The battalion is fully deployed in an AO or in an assigned task. Its work includes coordination with its parent headquarters, supported groups, and other relief forces and daily allocation of its own assets to recovery tasks. The battalion's task organization is likely to change periodically as the need for particular services and support changes. Security, maintenance, effective employment of resources, and soldier support all need continuing attention. Medical officers should review and assist the commander in counteracting the psychological effects of disaster relief work and exposure to human suffering on the battalion's soldiers throughout the operation. Typical tasks include--

- Continuing and modifying information operations.
- Resettling people from emergency shelters to their homes.
- Repairing infrastructure.
- Contracting to provide appropriate support (when feasible).

- Restoring power, water, communication, and sanitation services.
- Removing debris.
- Investigating crimes and supporting law enforcement agencies.
- Transferring authority and responsibility to civil authorities.
- Planning for redeployment.
- Assisting with restoring the health care delivery system.

9-18. RESTORATION

Restoration is the return of normalcy to the area. As civil authorities assume full control of remaining emergency operations and normal services, the battalion transfers those responsibilities to replacement agencies and begins redeployment from the area. During restoration the commander should consider issues such as--

- Transfer of authority to civil agencies.
- Transition of command and control for agencies and units that remain in the area.
- Movement plans that support redeployment and continued recovery in the area.
- Staging of command and control out of the area.
- Accountability of property or transfer of property to the community, if authorized.
- Force protection during movement.

Section IV. SEQUENCE OF OPERATIONS

Generally, support operations follow the sequence of--

- Movement into the AO.
- Establishment of a base of operations.
- Maintenance of stability or support.
- Terminating operations.

In every part of the sequence, there are special considerations for digitized units initiating an operation or replacing another unit that has performed the mission before them.

9-19. MOVEMENT INTO THE AREA OF OPERATIONS

Command and control considerations normally include using advance parties or liaison teams, establishing command posts, and sequencing the arrival of key leaders. Battalion commanders must prepare a complete plan for establishing control of the AO that includes a concept for phased installation of signal and C2. Transfer of authority from the unit in place to the arriving unit and methodical, accountable handover of the AO is also of primary interest. Detailed rehearsals and mock drills held in preparation for this task are a regular part of preparatory training. Mission CCIR should guide staff specialists as they build databases and map displays to support the operation. The commander's PIR should determine the order in which critical information (for example, enemy dispositions, locations of hazards, and communities in greatest need of support) is assembled and distributed. Because they create information dominance, the assets of the digitized battalion generally facilitate faster, more secure performance of key tasks. For

instance, digitized C2 simplifies the processes of opening routes, repairing bridges, clearing obstacles, establishing security, and imposing movement control.

9-20. ESTABLISHMENT OF THE BASE OF OPERATIONS

Security, support, and continuous operations are the primary considerations during the establishment of a battalion base of operations. The battalion must maintain security continuously and may spend its first days of operation exclusively in securing its bases.

a. **Occupation.** During the response phase, the battalion moves in accordance with the controlling headquarters' order, employing advance parties and quartering parties as necessary. The battalion may move to an assembly area in the affected area initially or may occupy its AO directly from the march. Establishing communications across the AO, refueling vehicles and recovering any inoperable equipment, establishing logistical facilities and medical aid stations, and reconnoitering the area are all early priorities for the battalion. The battalion must complete these preliminary tasks as quickly as possible in order to assume the mission promptly. In some cases, the battalion must defer operations until it completes such tasks. For instance, a medical platoon cannot receive patients until its basic set-up is complete.

b. **Battalion Focus.** The battalion commander, the principal staff officers, and the company commanders vigorously engage in making personal contact with supported groups, partners in the operation, and community representatives early in the response phase. Executive officers and staff assistants are, therefore, responsible for much of the internal activity of the battalion during response.

c. **Security.** Security of the battalion is important during all phases of the operation, but especially during arrival and organization. In addition to direct threats to the soldiers of the unit, the commander must also understand and provide for normal environmental hazards and special conditions caused by the emergency itself, such as disease, chemical residue, mines, and damaged infrastructure.

d. **24-Hour Operation.** Organizing the command post for 24-hour operation in nontactical support operations also requires early attention. A detailed SOP, complete operations maps, and special provisions for communications, inspections, reporting, and adjusting security levels are necessities. Establishing a high standard for operations from the outset is key both because of the general sensitivity of support operations and because of the battalion's special vulnerabilities in its first days of the mission.

e. **Equipment Substitution.** In some cases, HMMWVs or other light wheeled equipment replaces the ICVs of the battalion to facilitate movement, limit the damages to infrastructure, or present a less threatening appearance. In the case of such substitution, driver and maintenance training is necessary well before the battalion assumes the mission. The battalion may have to modify CSS to support the new fleet. If the battalion replaces an analog unit or a different size organization, it may have to modify base camp layouts or even reduce the number of operating bases.

9-21. MAINTENANCE OF SUPPORT

Steady-state mission performance differs in each instance. Support operations have a varied duration and characteristically orient on relieving crises in an area or population.

a. **Protect the Force.** Force protection remains a priority throughout support operations, and threats are constantly reassessed. The battalion must maintain consistency

in dealing with the population and in enforcing policy over time. Likewise, the commander must ensure maintenance of troop information and discipline throughout the operation. The battalion should perform internal reviews and after action reviews (AARs) and seek outside inspection of critical functions to assure that its standards of security and performance remain high throughout the full course of the mission. Involving soldiers in AARs and circulating lessons learned throughout the battalion are means of preventing complacency, boredom, and lapses in security.

  b. **Readiness.** During some support operations, the battalion must retain its readiness to transition to conventional operations. It must maintain and rehearse reaction forces and provisions for increased levels of security in base camps, at observation posts, and in patrols to assure readiness. Commanders should continually review their operations to detect patterns, vulnerabilities, or complacency an opponent might exploit.

9-22. TERMINATING OPERATIONS

Support operations end in different ways. Crises may be resolved, or a continuing support operation may be handed over to a replacement unit, a multinational force, a police force, or civil authorities. Missions of short duration or narrow scope (such as support to civil authorities) may end with the completion of the assigned task.

  a. **With Transfer of Control.** Transferring control of an AO or an operation to a follow-on force requires detailed coordination to assure that all relevant information passes to the commander or the other authority assuming responsibility. This procedure entails transfer of databases, maps, inventories, records, and equipment. In cases where the battalion uses unique files and systems, staff leaders and commanders may have to go through extensive coordination to assure that their successors possess and understand all critical information. If the replacement unit uses analog C2 systems, this process is more complicated.

  b. **Without Transfer of Control.** If the battalion leaves the AO without replacement, it must plan for an orderly, secure departure that protects the force throughout the operation and sustains sufficient C2 in the AO until withdrawal is complete. In redeployment, force protection and accountability for soldiers, systems, and materiel are always of concern. Digitization assists the commander in following the movements of his unit throughout its withdrawal.

9-23. TRANSITION TO COMBAT

In some support operations (typically those that take place in an active combat theater), the battalion commander must remain prepared to defend himself or to attack forces that threaten his command. This applies differently in each operation. It may mean maintaining a reserve or a quick reaction force within the battalion. It may even compel the battalion to dispose its forces in ways that allow for immediate transition from support operations to combat. Additionally, the battalion must address the considerations of transitioning to less restrictive ROE.

  a. **Mission Focus.** Because of their size and resources, companies should be assigned a single mission. If they are performing support operations tasks, they are normally capable of only self-defense and very limited offensive actions. To improve their ability to transition to combat, the battalion commander may designate a company as the reserve, position a company to defend or secure the AO, or discontinue most

support operations tasks and position all his companies in a tactical assembly area, ready to respond to anticipated enemy action.

b. **Reaction Time.** States of increased alert or readiness can reduce reaction time for a transition from support operations to combat. Contingency plans covering the most likely combat actions are necessary in preparing for this transition. Rehearsals assure better reaction and deter enemies from overt action.

c. **Readiness Preservation.** Passive measures that preserve readiness include dispersion of forces, operation of the early warning systems, and force protection measures affecting arming and moving of troops. Active measures include positioning of field artillery, air defense artillery, engineer, tank, and infantry companies, along with the preparation of contingency plans.

d. **Maintenance of COP.** The battalion's ability to maintain current COP; distribute information, orders, and graphics; coordinate fires, aviation, and close air support; direct CSS precisely; and gain information dominance facilitate its transition from support operations to combat. By maintaining current contingency plans, alert staffs and commanders, and well-trained and informed soldiers, the battalion can meet combat challenges ably on short notice.

Section V. TRAINING CONSIDERATIONS

The SBCT infantry battalion must conduct support operations with consistency and impartiality to encourage cooperation from indigenous forces and the population and to preserve the legitimacy of the overall effort. The actions of squads, platoons, or even individual soldiers take place under the scrutiny of many interested groups and can have disproportionate effects on mission success. Therefore, high levels of discipline and training and a thorough understanding of mission outcome are necessary for effective support operations.

9-24. TRAINING FOR SUPPORT OPERATIONS

A sound foundation in combat mission training and in basic military skills and discipline underpins the battalion's ability to perform support operations missions. However, many of the key individual and collective skills differ and must be trained for deliberately. Battalions use most of their regularly trained movement and security tasks in support operations missions, but they modify these tasks for the special conditions of their specific mission. They also train leaders and soldiers for unique tasks necessary for a certain type of operation.

a. **Mission-Essential Task List.** Support operations tasks are not usually included in a battalion's mission-essential task list unless the battalion has been specifically assigned a support operations mission or its commander has determined that the likelihood of such assignment warrants dedicated training. Training for support operations, therefore, begins with the perception or assignment of a mission. Notification for support operations employment normally requires rapid reaction to an emergency but sometimes may allow for deliberate preparation.

b. **Deliberate Preparation.** In the case of deliberate preparation, a commander can anticipate a minimum of one to two weeks of mission training. This training may include a structured mission rehearsal exercise, in-country orientation, and leader reconnaissance of the AO. Classes on the AO and the mission, training in the ROE and in use of special

equipment, and familiarization with the other organizations present in the area may be part of this training. Reviews of Army lessons learned and preparation of families and the rear detachment also accompany this training.

c. **Immediate Response.** When less time is available (usually in an emergency), the commander may have to respond immediately to mission requirements. In cases such as Hurricane Andrew and the Rwandan relief mission, commanders relied on the general military skills and discipline of their troops and trained to the task as time allowed. Conditions vary from case to case in this kind of reaction, but commanders can generally draw on Army lessons learned, general purpose tactics, techniques, and procedures (TTPs), and maps prepared for training and intelligence from the projected AO to identify the most critical training requirements. The battalion must address these in order of priority as time allows. Platoon and squad leaders can teach soldier skills and individual readiness training during deployment. Every operation differs in its details. Techniques that are effective in one theater are not necessarily effective elsewhere. Situational factors from cultural practices to geography, and from coalition make-up to ROE, represent substantial differences that training programs must take into account.

d. **Support Operations Task Organizations.** Many support operations modify headquarters and unit organizations. New staff positions may be added to the battalion (CA, PSYOP, and public affairs are common). Unfamiliar organizations may be added to the task organization and the companies, and platoons of the battalion may be re-equipped and partially reorganized to meet mission requirements or to conform to mission requirements. In such cases, conducting staff drills, training augmentees on digitized C2, learning to operate new equipment, and practicing operations in new unit configurations all must figure into battalion and company training plans.

9-25. BASIC SOLDIER SKILLS
Basic soldier skills are common to all operations and are as important in support operations as elsewhere. Soldiers employed in support operations should be trained in--

- Individual and crew-served weapons.
- Special tools, equipment, and weapons.
- Mounted and dismounted land navigation.
- Observation and reporting procedures.
- First aid.
- Customs and basic language phrases.
- ROE.
- Safety.
- Counterterrorist actions.
- Mine and booby-trap identification.
- Vehicle, aircraft, weapon, uniform, and insignia identification.
- FBCB2 and other appropriate C2 INFOSYS skills.
- Detainee handling.
- Digital communication operations.

9-26. DSO- OR FHA-SPECIFIC TRAINING
Training for support operations centers on assisting distressed populations and on responding to emergencies. Training for DSO and FHA operations routinely requires

cooperation with civil authorities and normally involves operating under special legal restrictions. DSO and FHA training may address--

- Orienting troops and leaders on legal restrictions and requirements.
- Preparing troops and leaders for hazards in the AO.
- Protecting humanitarian relief efforts.
- Organizing and conducting convoys with civilians and civilian vehicles.
- Supporting civil affairs and public affairs operations.
- Organizing and securing relief centers.
- Assisting in logistical support and construction engineer operations.
- Supporting the coordination of nonmilitary organizations.
- Familiarizing troops with mission-specific tasks such as firefighting, flood control, hazardous material clean-up, riot control, protection of endangered groups or individuals, assistance to civilian law enforcement officials, and resettlement actions.

9-27. ADDITIONAL REQUIREMENTS

Almost all support operations missions have additional requirements. Some of these include--

- Orienting leaders and soldiers to the mission.
- Familiarizing troops with the area and cultures.
- Adapting standard tactical practices to the conditions of the mission.
- Adapting CS and CSS operations to the limits of the mission.
- Understanding and applying ROE.
- Providing for force protection.
- Conducting effective media relations.
- Collecting information.

CHAPTER 10
COMBAT SUPPORT

The commander of an SBCT infantry battalion uses combat support elements as combat multipliers to enhance the combat power of his maneuver companies. The addition of enablers to command and control information systems enhances the commander's ability to integrate these assets into the battalion's scheme of maneuver. CS elements use enhanced information systems that provide increased situational understanding to stay abreast of the tactical situation and assist the commander in applying superior combat power at the decisive point on the battlefield.

This chapter describes the capabilities and limitations of CS elements that support the SBCT infantry battalion. The battalion commander is responsible for the integration and synchronization of all available CS with available combat assets to accomplish his assigned mission. Digitization of maneuver and CS units affects the way in which the commander decides to employ his CS assets. These considerations ultimately dictate the relationships and responsibilities of attached CS assets.

Section I. FIRES AND EFFECTS

The fires and effects system coordinates and provides full-spectrum fires and effects in time, space, and purpose in support of the SBCT. It enables the SBCT infantry battalion to conduct decisive operations during full-spectrum operations. The fires and effects system acquires and tracks targets, delivers timely and accurate lethal fires, provides counterfire, and plans, coordinates, and orchestrates full-spectrum fires and effects. Infantry battalions rely heavily on the fire support element to plan, coordinate, and integrate effects-based fires into the battalion's combined arms operation. The battalion commander expects fires and effects to be delivered at the right place and time on the battlefield to accomplish his desired effects against targets and achieve the intended purpose. The implication for the fires and effects community is that maneuver commanders must have support from field artillery and other fire platforms that are not necessarily organic to the battalion but are positioned to best deliver the required effects. The FSE receives guidance from the commander and from the higher HQ fires and effects plan regarding the effects desired in time, space, and purpose. It then plans, coordinates, and achieves the desired effects using organic and nonorganic means in a rapid and responsive manner.

10-1. ORGANIZATION AND EQUIPMENT
In the SBCT, a fire support element is organic to each infantry battalion and the RSTA squadron.

a. **Fire Support Element.** The FSEs provide each maneuver battalion with a resident fires and effects coordination capability within its headquarters (Figure 10-1, page 10-2). The Air Force tactical air control party, consisting of an air liaison officer and enlisted tactical air controller, plugs into each maneuver battalion headquarters alongside

the FSE, providing the ability to request, coordinate, and control CAS. Each FSE has a voice and digital link to the fires and effects coordination center (FECC).

Title	Rank	Quantity
Fire Support Officer	CPT	1
Assistant Fire Support Officer (Plans)	1LT	1
Fire Support Sergeant	SFC	1
Fire Support Sergeant	SFC	1
Fire Support Sergeant	SFC	2

Figure 10-1. Battalion fire support element.

b. **Battalion Mortars.** Mortars are organic to SBCT infantry battalions and companies. (Refer to Chapter One for battalion mortar platoon organization.) The battalion mortar platoon has four 120-mm and four 81-mm mortars. Though it has eight systems, there are only four crews available to operate these systems. Each infantry company has two 120-mm and two 60-mm mortars. Though it has four systems, there are only two crews available to operate these systems. These assets provide the commander with close and immediate responsive fires in support of the maneuver companies. These fires harass, suppress, neutralize, or destroy enemy attack formations and defenses; obscure the enemy's vision; or otherwise inhibit his ability to acquire friendly targets. The three primary types of mortar fires are high explosive, obscuration, and illumination. Mortars also can be used for final protective fires and smoke.

10-2. PLANNING CONSIDERATIONS
Within the SBCT there is only one "fires and effects organization" and that is the fires and effects coordination cell at SBCT headquarters. Traditional fire support organizations (battalion/squadron fire support elements, company/troop fire support teams, and infantry platoon forward observer teams) are subordinate to the FECC. The SBCT plays a vital role in the battalion's fires and effects planning and execution. With the exception of battalion mortars, the SBCT is the provider of indirect fires and effects combat multipliers as the battalion has no effects cell. Therefore, any discussion of fires and effects planning and execution at the battalion level must first start with the role of the SBCT. The SBCT develops a synchronized scheme of maneuver and concept of fires and effects, translating that concept into a scheme of fires and effects. It assigns fires and effects tasks and allocates assets and effects to subordinates. As part of that concept, it is the SBCT's responsibility to set conditions for and provide fires and effects to the battalions for the close, direct firefight. Fires and effects in support of the battalion close fight are for a specific period of time or a specific purpose. In terms of an *SBCT versus battalion fight*, there is only one fire plan. The top-down plan developed and refined during the MDMP and preparation phase should incorporate essential fires and effects tasks supporting SBCT and battalion (and company) schemes of maneuver. As fires shift from deeper to closer targets, execution responsibility tends to shift from brigade to battalion. In executing the fire plan, the SBCT *does not hand fires off to subordinate headquarters; rather, it hands off the responsibility for executing certain EFETs to*

subordinate headquarters. In this manner, SBCT fires remain synchronized with brigade maneuver while still supporting subordinate maneuver units. The SBCT must clearly specify when fires and effects will transition to the battalions and when the battalions will lose them. Refinements to the SBCT scheme of fires from subordinate units must also be integrated. Finally, the SBCT integrates the movement of artillery units with the scheme of maneuver.

a. **SBCT's Role in Fires and Effects Planning.** The battalion is the executor of its portion of the SBCT scheme of fires and effects plan. With the exception of the battalion mortars, the SBCT commander controls all indirect fire assets supporting the SBCT. The artillery is normally in direct support of the SBCT. Therefore, the battalion must clearly understand the concept of fires, how it is synchronized to support the scheme of maneuver, and the battalion's role in the execution of its portion of the SBCT scheme of fires. Understanding these things, the battalion must develop its own concept of fires. This concept normally involves assigned tasks from the scheme of fires and targets to support the battalion close fight. This may require only the refinement of an SBCT target or may require the battalion to submit new targets or a new EFET to support the battalion commander's scheme of maneuver. The SBCT must--

- Synchronize the SBCT concept of fires and effects with the SBCT scheme of maneuver.
- Set conditions for the battalion close fight.
- Provide force protection to the battalion through both a proactive and reactive counterfire fight.
- Develop an SBCT scheme of fires and assign tasks to subordinates.
- Provide fires for the battalion close fight.
- Integrate refinements from subordinates.
- Integrate and synchronize the movement of artillery units with the scheme of maneuver.

b. **Battalion's Role in Fires and Effects Planning.** Key to the battalion successful fire support is the synchronization of mortar fires with the scheme of maneuver, integration of the mortars into the scheme of fires, and synchronization of their movement with the scheme of maneuver. The battalion then develops a scheme of fires to support both those tasks assigned by the SBCT and those targets developed by the battalion. It then issues the fires and effects plan to its subordinates and incorporates bottom-up refinement to support the commander's scheme of maneuver. Finally, the battalion forwards its effects-based fires and target refinements to SBCT and ensures the plan is clearly understood through rehearsals.The battalion must--

- Understand the integration of the SBCT scheme of maneuver and fires.
- Understand the battalion's role in the SBCT scheme of fires and maneuver.
- Understand the SBCT commander's intent for fires.
- Execute the battalion's portion of the scheme of fires.
- Develop a battalion concept and scheme of fires and effects.
- Integrate and refine SBCT targets for the close fight.
- Plan for the synchronization of the battalion mortars with the scheme of fires and effects and their movement with the scheme of maneuver.
- Incorporate bottom-up refinement from the companies.

- Forward the battalion concept of fires and effects and target refinements to SBCT.
- Conduct combined rehearsals.

c. **Battalion Commander's Role in Fires and Effects Planning.** The key role of the battalion commander in fires and effects planning is the synchronization of fires with maneuver. Fires and maneuver must be thought of concurrently. The commander must--

- First decide precisely what he wants his fires and effects to accomplish. Take an active role in the development of the battalion's essential fires and effects tasks. Clearly articulate to his staff, not just his fire support officer, the sequenced EFETs in terms of desired effects for each target and the purpose of each target as it relates to the scheme of maneuver. Ensure the FSO understands his fire support guidance. The guidance does not have to be any different from the guidance he gives to his subordinate maneuver commanders.
- Give doctrinally stated effects and purposes. An effect for fire support describes a targeting effect against a specific enemy formation's function or capability. The purpose describes how this effect contributes to accomplishing the mission within the intent. The FSO and FSE develop the method to achieve the desired effects and the purpose for each target.
- Ensure that mortar fires are clearly synchronized with the scheme of maneuver and that the concept of fires and effects and their movement are synchronized with maneuver.
- Clearly articulate to the SBCT commander and the SBCT staff the importance of those fires to the battalion scheme of maneuver and the effect on mission success if those fires are not received. In most cases, if the battalion EFET is not included as an SBCT EFET, the likelihood of getting the target fired by artillery or CAS is greatly diminished.

d. **Fire Support Officer's (FSO) Role in Fires and Effects Planning.** The battalion fire support officer plans, coordinates, and executes fire support for the maneuver commander's concept of operation. He is the fire support coordinator (FSCOORD) for the maneuver battalion. His responsibilities include--

- Advising the commander and his staff on fire support matters to include making recommendations for integrating battalion mortars into the scheme of maneuver.
- Supervising all functions of the battalion FSE.
- Ensuring all fire support personnel are properly trained to support SBCT operations.
- Preparing and disseminating the fire support execution matrix or the fire support plan.
- Coordinating with the tactical air control party on CAS missions and for terminal control personnel.
- Planning, directing, and monitoring the employment of the ground/vehicular laser, locator, designator where it will best support the commander's concept of operation.

- Establishing and maintaining voice and digital connectivity with the SBCT FECC. When directed by the FECC, establish and maintain voice and digital connectivity with the FA battalion.
- Establishing voice and digital communications with battalion and squadron mortars as required. Monitor battalion and SBCT fire support nets and mortar employment in the close fight.
- Participating in fires and effects rehearsals.
- Processing requests for additional fire support with the FECC and CAS with the TACP.
- Helping the battalion S2 write the target acquisition and surveillance plan by providing information regarding the vulnerability of targets and advising on specific requirements for accuracy of target location assurance, level of detail for target descriptions, and minimum dwell time for viable attack.
- Providing staff supervision of the TACP assets attached, organic, and under OPCON of the battalion.
- Developing a central target list and recommending the attack/effects guidance matrix (A/EGM) to the commander.
- Disseminating the approved target list and matrix to subordinate elements.
- Recommending appropriate changes in the target list and attack guidance when required.
- Determining, recommending, and processing time-sensitive high payoff targets to the FECC.
- Coordinating with the battalion S2 for target acquisition coverage and processing of battalion HPT and producing the target selection standards (TSS) matrix for tactical air assets working for the battalion.

10-3. FIRES AND EFFECTS PLANNING

SBCT elements conduct fires and effects planning concurrently with maneuver planning at all levels. SBCTs and SBCT infantry battalions typically use top-down fire support planning with bottom-up refinement of the plans. The commander develops guidance for fires and effects in terms of task (effect) and purpose. In turn, the fire support planner determines the method to be used to achieve the desired effect. Individual units then incorporate assigned tasks into their fires and effects plans. In addition, units tasked to initiate fires must refine and rehearse their assigned tasks. This means that the commander refines his unit's assigned portion of the fires and effects plan, ensuring that the designated targets will achieve the intended purpose.

a. **EFET Planning.** The SBCT employs effects-based fires to set the conditions for its operations. The objective of effects-based fires is to apply a desired effect to achieve a specified purpose (shaping, protective, or decisive) in time and space by servicing targets as acquired. This approach develops EFETs to focus full-spectrum effects against a high-payoff target within the battlespace. An EFET is defined as an application of fires and effects required to support a combined arms course of action. Failure to achieve an EFET may require the battalion commander to alter his scheme of maneuver. A complete EFET consists of the task (effect), purpose, method, and assessment (Figure 10-2, page 10-6). The *task* is the effect (what) desired to apply against the target (for example, suppress and obscure the enemy on hill 197). The *purpose* (why) is the combined arms outcome

desired as a result of applying the effect (for example, enable the breach force to reduce the obstacle and establish far side security). The *method* (how) consists of acquisition and tracking, delivery of effects, and restrictions. *Assessment* is essential to determine if the desired effect was created and the purpose achieved. In order for the FSO to meet the challenges of achieving the battalion's EFETs, he must ensure that full-spectrum effects are produced. As the SBCT is the lowest level with an FEEC incorporating a nonlethal cell, the FSO must rely on the SBCT for nonlethal planning and understand the battalion's role in executing the SBCT plan. To assist him in doing this, the FSO employs the fires and effects coordination process. This method is the continuous process of planning, integrating, and orchestrating full spectrum fires and effects in support of the combined arms operation to enable the achievement of the commander's desired end state. Currently the only nonlethal system organic to indirect fires is the use of smoke and illumination. The application of fires and effects must be fully nested within the battalion's concept of the operation.
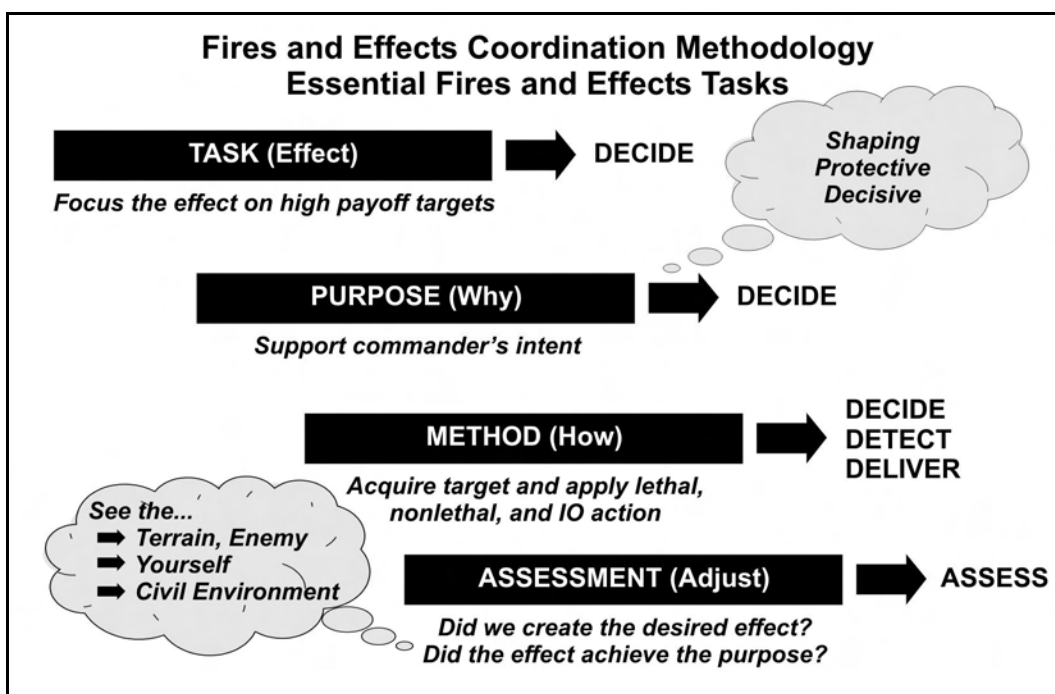
Figure 10-2. Essential fires and effects tasks.

b. **Linking Tasks and Maneuver Purpose.** A clearly defined maneuver purpose enables the maneuver commander to articulate precisely how he wants fires and effects to affect the enemy during different phases of the battle. In turn, this allows fires and effects planners to develop a fires and effects plan that effectively supports the intended purpose. They can determine each required task (in terms of effects on target), the best method for accomplishing each task (in terms of a fires and effects asset and its fire capabilities), and a means of quantifying accomplishment. A carefully developed method of fire is equally valuable during execution of the fires and effects mission; it assists not only the firing elements but also the observers who are responsible for monitoring the effects of the indirect fires. With a clear understanding of the intended target effects, fires and effects assets and observers can work together effectively, planning and adjusting the fires as

necessary to achieve the desired effects on the enemy. The following paragraphs describe several types of targeting objectives associated with fires and effects tasks and provide examples of how the battalion commander might link a target task to a specific maneuver purpose in his order.

(1) ***Delay.*** The friendly force uses indirect fires to cause a particular function or action to occur later than the enemy desires. For example, the commander might direct delaying fires this way: "Delay the repositioning of the enemy's antitank reserve, allowing Company B to consolidate on Objective Bob."

(2) ***Disrupt.*** Disrupting fires are employed to break apart the enemy's formation, to interrupt or delay his tempo and operational timetable, to cause premature commitment of his forces, or otherwise to force him to stage his attack piecemeal; for example, "Disrupt the easternmost first-echelon infantry battalion to prevent the enemy from massing two infantry battalions against Company C and Company A."

(3) ***Limit.*** Indirect fires are used to prevent an action or function from being executed where the enemy wants it to occur; for example, "Limit the ability of the enemy's advance guard to establish a firing line on the ridge line to the flank of the battalion axis of advance to prevent the enemy from fixing the battalion main body."

(4) ***Divert.*** Diverting fires are employed to cause the enemy to modify his course or route of attack; for example, "Divert the enemy's combined arms reserve counterattack to EA Dog to facilitate its destruction by Company B."

(5) ***Screen.*** Screening fires entail the use of smoke to mask friendly installations, positions, or maneuver. They are normally conducted for a specified event or a specified period of time; for example, "Screen the movement of the counterattack force (Company B) along Route Red to attack by fire (ABF) position 21 to prevent the remnants of the enemy infantry battalion from engaging the team."

(6) ***Obscure.*** Smoke is placed between enemy forces and friendly forces or directly on enemy positions, with the purpose of confusing and disorienting the enemy's direct fire gunners and artillery FOs. Obscuration fires are normally conducted for a specified event or a specified period of time; for example, "Obscure the northernmost infantry company to protect our breach force until the breach site is secured."

NOTE: The supported commander may also designate purposes for special munitions such as area denial artillery munition, remote antiarmor mine, Copperhead, or illumination rounds.

10-4. FIRES AND EFFECTS AND THE MDMP
The MDMP is an adaptation of the Army's analytical approach to problem-solving and is a tool that assists the commander and staff in developing a plan. FM 101-5 details the steps of the MDMP. As a member of the battalion staff, the FSO plays a crucial role in the MDMP both as the staff fires and effects expert and as a member of the targeting team. The process outlined in Table 10-1, page 10-8, describes the sequence of inputs, actions, and outputs of fires and effects planning. At the battalion level, there is seldom time to conduct a formal MDMP process. In most cases, the battalion commander and his staff use an abbreviated or accelerated decision-making process.

MDMP STEP	INPUTS	ACTIONS	OUTPUTS
Receipt of Mission and Mission Analysis	• Higher HQ WARNO or OPORD. • Facts from higher, lower, and adjacent FSE's. • IPB products. • Enemy COA from S2. • High-value targets (HVTs) by phase or critical event. • Facts from FS assets.	• Understand higher maneuver and FS plan. • Organize and analyze facts. • Identify specified and implied tasks. • Translate status of FS assets into capabilities. • Analyze effects of IPB on FS. • Identify FS related CCIR. • Identify FS constraints/ restrictions. • Obtain Cdr's initial targeting guidance. • Develop draft EFETs.	• Initial WARNO upon mission receipt. • FSCOORD portion of mission analysis brief. • Recommend EFETs. • Commander: Approve initial EFETs or modify. • Give other FS guidance. • WARNO after mission analysis brief.
COA Development	• See outputs from previous step.	• Determine EFETs for each COA • Determine where to find and attack EFET formations. • Identify HPTs in those formations. • Quantify the effects for EFETs. • Plan methods for EFETs. • Allocate assets to acquire. • Allocate assets to attack. • Integrate triggers with maneuver COA. • Use battle calculus. • Assist S2 in R&S development to support FS • Prepare F&E portion of COA/ sketch.	• For each COA developed: (1) Concept of fires. (2) Draft FSEM. (3) Draft target list/overlay. (4) Draft targeting synchronization matrix (TSM) or modified TSM. (5) R&S plan.
COA Analysis and COA Comparison	• See outputs from previous step.	• Targeting decisions: finalize HPTL. • War-game FS plan(s) versus enemy COAs. • Modify or refine inputs as required. • Refine and test FS plan.	Final Drafts: • Fires and effects paragraph. • FS Annex: (1) FSEM. (2) TGT list. (3) TGT overlay. (4) TSM or modified TSM (HPTL, AGM, TSS).
COA Approval and Orders Production Staff Supervision	• See outputs from previous step.	• Approval briefing. • FS plan briefed as part of each COA. • FSCOORD presents analysis as part of staff.	• Commander selects, modifies, or approves COA. • FSCOORD issues WARNO as required. • Finalize FS products. • Issue OPORD as part of staff. • FS backbrief. • Manage refinement. • Rehearsal.

Table 10-1. Fires and effects planning process.

10-5. MORTARS IN THE BATTALION CLOSE FIGHT

Suppressing the enemy inhibits his fire and movement while allowing friendly forces to gain a tactical mobility advantage. At the company- and battalion-level battle, mortar

fires and effects act both as a killer of enemy forces and as an enhancer of friendly mobility.

a. Mortars provide the commander with responsive fires to support the reconnaissance platoon's infiltration and exfiltration and the counterreconnaissance force during security operations.

b. Field artillery assets are limited at all levels. For SBCT and division commanders to concentrate offensive combat power at the critical point, they must decentralize elsewhere. Mortars compensate for FA limitations and reduce combat risks.

c. Due to the maneuver battalions' mortar capabilities, the SBCT commander can divert field artillery fires and effects away from them for limited periods to win the critical fight elsewhere.

d. Mortars contribute to the battalion's direct fire fight by forcing the enemy to button up, by obscuring his ability to employ supporting fires, and by separating his dismounted infantry from its armored personnel carriers (APCs) and accompanying tanks. The battalion's direct fires become more effective when used against buttoned-up enemy armor.

e. Heavy mortars can penetrate buildings and destroy enemy field fortifications, preparing the way for the dismounted assault force.

f. Mortars provide battalion and company commanders with the ability to cover friendly obstacles with indirect fire, regardless of the increasing calls for artillery fire against deep targets or elsewhere on the battlefield. Mortar fire combines with the FPF of a company's machine guns to repulse the enemy's dismounted assault. It also frees artillery to attack and destroy follow-on echelons, which are forced to slow down and deploy as the ground assault is committed. Mortars can use the protection of defilade to continue indirect fires and effects even when subjected to intense counterfire.

g. Mortars can provide obscuration and suppression to protect the battalion during the attack or to support it while breaking contact with the enemy in the defense or in a movement to contact. Mortars can fire directly overhead of friendly troops from close behind the forward elements. This allows combat power to be concentrated and synchronized on close terrain.

Section II. CLOSE AIR SUPPORT

The SBCT is generally allocated CAS sorties only. CAS is defined as air strikes on hostile surface forces that are in close proximity to friendly forces. CAS can be employed to blunt an enemy attack; to support the momentum of the ground attack; to help set conditions for battalion operations as part of the SBCT's overall counterfire fight; to disrupt, delay and destroy enemy second echelon forces and reserves; and to provide cover for friendly movements. For best results while avoiding mutual interference or fratricide, aircraft are kept under "detailed integration" (part of the Air Force's combat air system). The effectiveness of CAS is directly related to the degree of local air superiority attained. Until air superiority is achieved, competing demands between CAS and counterair operations may limit sorties apportioned for the CAS role. CAS is the primary support given to committed SBCTs and battalions by Air Force, Navy, and Marine aircraft. SBCTs can request air reconnaissance and battlefield air interdiction missions through the division, but these missions are normally planned and executed at division level, with the results provided to the SBCT commander and his staff.

10-6. MISSIONS

CAS is most often planned and controlled at the SBCT level. However, this does not preclude the battalion from requesting CAS, receiving immediate CAS during an operation, or being assigned execution responsibility for an SBCT-planned CAS mission. CAS is another means of indirect fire support available to the SBCT and battalion. In planning CAS missions, the commander must understand the capabilities and limitations of close air support and synchronize CAS missions with both the battalion fire plan and scheme of maneuver. CAS capabilities and limitations (windows for use, targets, observers, airspace coordination, and so on) present some unique challenges, but the commander and staff must plan CAS with maneuver the same way they do other indirect fires. When executing a CAS mission, the battalion must have a plan that synchronizes CAS with maneuver and the scheme of fires. The battalion must also consider having the ETAC operate as a forward air controller in the observation plan.

a. **Preplanned Close Air Support.** Battalion planners must forward CAS requests as soon as they can be forecast. 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, that can be used in the apportionment, allocation, and distribution cycle. Estimates of weapons effects needed by percentage (for example, 60 percent antiarmor and 40 percent antipersonnel), sortie time flows, peak need times, and anticipated distribution patterns are vital to preparing the air tasking order. ALOs and S3s at all planning echelons must ensure that this information is forwarded through higher echelons in accordance with the air tasking order (ATO) cycle.

(1) *Categories.* Preplanned CAS may be categorized as either scheduled or alert missions.

(a) A scheduled mission is a CAS strike on a planned target at a planned time.

(b) An alert mission is a CAS strike on a planned target or target area executed when requested by the supported unit. Usually, this mission is launched from a ground alert (scramble), but it may be flown from an airborne alert status. Alert (on-call) CAS allows the ground commander to designate a general target area within which targets may need to be attacked. The ground commander designates a conditional period within which he later determines specific times for attacking the targets.

(2) *Request Channels.* There are specific request channels for preplanned CAS. Requests for preplanned tactical air support missions are submitted to the FSE. The commander, ALO, and S3 at each echelon evaluate the request; coordinate requirements such as airspace, fires, and intelligence; consolidate; and, if approved, assign a priority or precedence to the request. The S3 Air then forwards approved requests to the next higher echelon. To plan CAS, the S3 Air must work closely with the S3, FSO, and ALO.

(3) *Engagement Alternatives.* CAS aircraft assigned to attack preplanned targets may be diverted to higher priority targets; therefore, the FSO should plan options for the engagement of CAS targets by other FS assets.

b. **Immediate Close Air Support.** 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 battalion command post by the most rapid means available.

(1) At battalion level, the commander, FSO, ALO, and S3 consider each request. Approved immediate CAS requests are transmitted by the TACP over the Air Force air request net (Figure 10-3) directly to the air support operations center (ASOC) collocated with the corps or separate division TOC.

(2) The TACP at each intermediate headquarters monitors and acknowledges receipt of the request. Silence by an intermediate TACP indicates approval by the associated headquarters unless disapproval is transmitted.

(3) The ASOC coordinates with the corps G3 Air for all air support requests initiated by the corps. Meanwhile, intermediate TACPs pass the request to the associated headquarters G3 or S3 for action and coordination.

(4) All echelons coordinate simultaneously. If any Army echelon above the initiating level disapproves a request or substitutes another support means (for example, Army aviation or field artillery), the TACP at that headquarters notifies the ASOC at corps and the originating TACP, which notifies the requester.

(5) When the corps commander or his representative approves the request, the ASOC initiates the necessary action to satisfy the request. If all distributed sorties are committed, the corps commander can request additional sorties from the next higher echelon, when appropriate. If the ASOC has no CAS missions available, it can, with Army concurrence, divert sorties from lower priority targets or request support from lateral or higher commands.
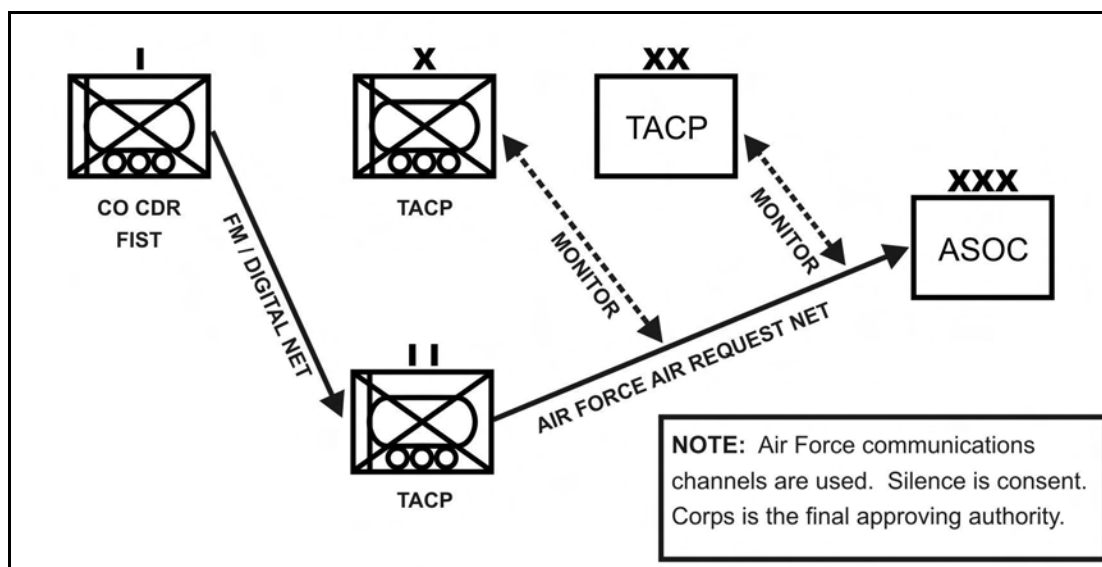
Figure 10-3. Immediate close air request channels.

10-7. PLANNING CONSIDERATIONS

CAS mission success directly relates to thorough mission planning based on the following factors and considerations. The S3 Air is responsible for working with the battalion ALO prior to and during tactical air (TACAIR) operations. Since there are no digital links with supporting aircraft, he must consistently keep the ALO apprised of the ground tactical situation through digital and conventional means.

a. When operating in the battalion's AO, CAS aircraft are under the positive control of one of the battalion's TACP forward air controllers (FACs). FACs monitor the ground

tactical situation, review the COP, and monitor conventional voice radio nets of the supported ground or maneuver commander to prevent fratricidal air-to-ground or ground-to-air engagements.

b. Other planning factors include time available for planning, C2 procedures, communications, and terrain.

10-8. AIR FORCE SUPPORT

Air Force units are attached to the battalion to plan, control, and direct close air support. The ALO and the TACP are the typical air force assets attached to the battalion.

a. **Air Liaison Officer.** ALOs are provided to Army maneuver units from corps to battalion. The ALO is responsible for supervising the tactical air control party and coordinating close air support with the FSE and S3 Air. The ALO is the senior USAF representative for the TACP supporting the battalion. The ALO is normally located with the command group during tactical operations.

b. **Tactical Air Control Party.** TACPs are provided to Army maneuver unit headquarters at corps through battalion. TACPs provide direct interaction with the supported maneuver units and should be highly visible to Army commanders and readily available to assist in the integration and synchronization of air power with land-force fire and maneuver.

(1) The supported unit's ALO is the commander of the TACP. TACPs at corps through SBCT level function primarily in an advisory role. These sections provide Air Force operational expertise for the support of conventional Army planning and operations. They are the point of contact to coordinate local air defense and airspace management activities. Their function is specifically to assist Army planners in the preparation of the Army's plan to integrate CAS into the overall scheme of fires and maneuver. They coordinate preplanned and immediate air requests and assist in coordinating air support missions with appropriate Army airspace command and control elements. Battalion TACPs have the added responsibility of terminal attack control.

(2) TACPs coordinate activities through an Air Force air request net and the advanced airlift notification net. The TACP performs the following functions:

- Serves as the Air Force commander's representative, providing advice to the battalion commander and staff on the capabilities, limitations, and employment of air support, airlift, and reconnaissance.
- Provides a coordination interface with respective FSE and Army airspace command and control (A2C2) cells; assists in the synchronization of air and surface fires and preparation of the air support plan; and provides direct liaison for local air defense and airspace management activities.
- Integrates into the staff for air support planning for future operations and advises on the joint suppression of enemy air defense (J-SEAD) programs.
- Provides appropriate final attack control for CAS and operates the Air Force air request net.

(3) TACPs are manned at the following levels:

- *Corps*: One ALO, four fighter liaison officers (FLOs), two theater airlift liaison officers (TALOs), and six tactical air command and control specialists (TACCSs).
- *Division*: One ALO, three FLOs, three TALOs, and six TACCSs.

- *SBCT*: One ALO, one FLO, and four TACCSs.
- *Battalion*: One ALO and two TACCSs.

10-9. CAS PLANNING DUTIES AND RESPONSIBILITIES

The ALO and members of the battalion TACP provide the necessary expertise for the control and application of tactical air power. The ALO serves as the primary tactical air power advisor for the battalion while TACP FACs provide final control for CAS missions executed in the battalion's area of operations. Their collaborative working relationship established with the SBCT and maneuver battalion provides a working knowledge of ground operations and enhances their ability to integrate TACAIR operations with ground schemes of maneuver effectively.

a. **Forward Air Controller.** The primary responsibility of TACP FACs includes the positive control of CAS aircraft flying missions in support of SBCT operations. Using their knowledge of ground operations, they are also better able to provide the troop safety necessary to avoid fratricidal engagements. The following paragraphs discuss FAC procedures and responsibilities.

(1) *Troop Safety.* The safety of ground forces is a major concern during day and night CAS operations. Fratricidal engagements are normally caused by the incorrect identification of friendly troops operating in an AO or a failure to mark the boundaries of the friendly unit adequately. 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 FACs and the strike aircraft in the positive identification of ground forces and their operational boundaries.

(2) *Identification of Friendly Forces.* FBCB2 and the data it provides related to the disposition and location of friendly units enhances safety margins and reduces the potential of fratricidal engagements during joint air attack team (JAAT) or TACAIR operations. Friendly unit locations and boundaries can 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 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.

(3) *Target Acquisition.* 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.

(4) *Target Identification.* 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 FACs are generally assigned an AO and become intimately familiar with its geographical features as well as the unit operating within the AO.

(5) *Final Attack Heading.* 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.

b. **S3 Air.** The S3 Air plans for and requests the use of CAS and attack helicopters to support the commander's concept of the operation.

c. **S2**. The S2 provides information on the avenues of approach, target array, terrain, and weather as it applies to the time and location of the JAAT operation.

d. **Attack Helicopter Liaison Officer.** The Army aviation liaison officer (when attached) performs the following tasks:

- Provides status of Army aviation assets available.
- Begins planning the air corridors and air battle positions to support the operation.
- Coordinates with the FSO and the ADO to deconflict air corridors.
- Coordinates for the planned airspace coordination areas (ACAs).

e. **Fire Support Officer.** The FSO--

- Determines the need, availability, and positioning of artillery and battalion mortars, commensurate with the enemy update, to support the JAAT.
- Coordinates with the aviation representative to provide call signs and frequencies to the supporting FDC.
- Helps the TACP deconflict the initial points from artillery positions and develop ACAs to support the mission.
- Determines the need for suppression of enemy air defense (SEAD).
- Plans and coordinates, in conjunction with the battalion staff, the use of nonlethal attack assets to complement the JAAT.
- Determines when and how priorities of fires shift.
- Recommends FSCMs to enhance the success of the mission.
- Establishes a quick fire channel if necessary.

f. **Air Defense Officer.** The ADO--

- Coordinates to ensure that the ADA assets know the location of air corridors, friendly locations, initial points, and ACAs.
- Ensures these assets are informed of friendly air operations and their integration into the battle.

g. **Tactical Air Control Party.** The TACP--

- Develops contact points, initial points, and ACAs in coordination with the FSO and the ADO.
- Disseminates contact points, initial points, and ACAs to the ASOC for dissemination to the ground liaison officer and wing operations center for preflight briefing.
- Helps coordinate aircraft forward to the appropriate contact point or initial point (IP) and then hands them off to the aviation commander conducting the JAAT operation.

10-10. SUPPRESSION OF ENEMY AIR DEFENSE

SEAD operations target all known or suspected enemy ADA sites that cannot be avoided and that are capable of engaging friendly air assets and systems, including suppressive fires. The FSE integrates SEAD fires into an overall fire plan that focuses fires according to the commander's guidance. Synchronization of SEAD fires with the maneuver plan is accomplished using procedural control (an H-hour sequence), positive control (initiating

fires on each target as the lead aircraft passes 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 ALO, Army aviation liaison officer (LNO), S3 Air, S2, ADO, FA battalion S3/FDO, and FSE. Plans for SEAD operations are coordinated and synchronized over the TI using the AFATDS, ASAS-Light, FBCB2, MCS-Light, and aviation mission planning system (AMPS).

10-11. WEATHER

Weather is one of the most important considerations when visually employing aerial-delivered weapons. Weather can hinder target acquisition and identification, degrade weapon accuracy and effectiveness, or negate employment of specific aerial munition types. The S3 Air can request IMETS data from the division G2 to gain highly predictive and descriptive weather information for specific time periods and locations within the battalion's AO. This data improves his ability to determine when close air support can be used. IMETS provides weather data based on inputs from the air weather services and meteorological sensors. This system is currently located at the division, but it interfaces with the ABCS systems and disseminates weather information down to maneuver battalions via the warfighter associate. It predicts weather effects on a specific mission, desired AO, or particular system. IMETS also provides weather hazards for different elevations, surface temperatures in a specific AO, and wind conditions. Meteorological satellite (METSAT) data may also be obtained to show regional cloud cover with high and low pressure systems annotated.

10-12. NAVAL SURFACE FIRE AND EFFECTS

Naval surface fire support (NSFS) can provide large volumes of immediate fires close to coastal waters. Normally, naval fires are controlled by a naval surface fire support liaison officer attached to the fires and effects coordination cell at the SBCT headquarters for a specific operation.

a. **Mission.** The mission of NSFS is to assist the ground force by destroying, neutralizing, or suppressing targets that oppose that force. Most cruisers, destroyers, and some frigates carry 5-inch, 54-caliber guns. These guns have an approximate range of 23 km.

b. **Employment and Planning Considerations.**

(1) The NSFS ships are assigned the missions of DS or GS in the same way artillery is organized for combat.

(a) *Direct Support.* A ship in DS usually supports a battalion. This ship can deliver both planned and on-call fires and effects. The NSFS team of the supported unit or an air spotter normally requests and adjusts on-call fires.

(b) *General Support.* A ship is usually placed in GS of an SBCT or division. The NSFS liaison officer of the supported unit directs how the fires for the GS ship are conducted.

(2) The primary purpose of a DS ship is to allow the supported commander to add depth to the fires and effects of his artillery. The SBCT NSFS team communicates on the division NSFS net (high frequency [HF]). This net provides the communication between the SBCT NSFS liaison officer, the division NSFS liaison officer, and the ship(s) in support of these units. This net is used for day-to-day planning between units. The fires

and effects coordination cell nets must be used to communicate to the naval surface fire support teams. Requests for fires and effects are transmitted to the air and NSFS team (at SBCT or division), which forwards it to the ship. The NSFS liaison officer at division monitors and coordinates as necessary.

10-13. ARMY AVIATION

Army aviation (rotary-wing) units perform the full spectrum of combat, CS, and CSS missions. Aviation units destroy enemy forces by fire and maneuver, perform target acquisition and reconnaissance, enhance C2, and move personnel, supplies, and equipment in compliance with the overall scheme of maneuver. In support of the fire support mission, aviation functions in the following roles:

- Aerial observation and calls for fire.
- Insertion of COLTs.
- Air movement of weapons systems and ammunition.
- Air reconnaissance.
- Intelligence and electronic warfare.
- Attack helicopter operations.
- Aerial mine delivery.
- Medical evacuation.
- Search and rescue.
- C2 for JAAT operations.

Aviation has the capability to reach the battlefield quickly and move throughout the depth and breadth of the battlefield. This mobility and flexibility aid the combined arms commander in seizing or retaining the initiative. (See Appendix H, Aviation Support of Ground Operations.)

Section III. MANEUVER SUPPORT

Maneuver support enables the movement and maneuver of combat forces to achieve a position of advantage with respect to enemy forces. Mobility operations maintain freedom of movement for personnel and equipment within the area of operations without delay due to terrain, barriers, obstacles, or mines. Engineers and chemical and military police units are task-organized to provide maneuver support to battalions during offensive, defensive, stability, and support operations.

10-14. THE SBCT MANEUVER SUPPORT CELL

The MANSPT cell is organic to the SBCT headquarters and is responsible for planning, integrating, and synchronizing maneuver support for all SBCT operations. At the maneuver battalion level there is no dedicated engineer planner. When engineers are task-organized to the maneuver battalion, the senior engineer will act as the maneuver battalion staff engineer and assist the staff in planning and integrating engineers. For more specific information on engineer staff integration refer to FM 3-34.221.

10-15. MANEUVER BATTALION PLANNING FOR MANEUVER SUPPORT

The maneuver battalion staff plans, integrates, and synchronizes mobility, countermobility, and survivability operations throughout the maneuver battalion's battlespace. If task-organized with engineers, the maneuver battalion engineer

coordinates all military and civilian engineer efforts within the maneuver battalion's area of operation. Details on staff engineer responsibilities can be found in FM 3-34.221.

　　a.　**Mobility, Countermobility, and Survivability Synchronization.** The maneuver battalion staff is responsible for ensuring that the BOS are integrated and synchronized within the maneuver battalion's plan. The staff synchronizes the plan and assists the commander in synchronizing the execution. The staff promotes synchronization by maintaining a COP of all friendly and enemy engineer efforts in the area of operations.

　　(1) Mobility operations preserve friendly force freedom of maneuver. Mobility missions include breaching and clearing obstacles, maintaining battlefield circulation, providing assault or dry gap crossing, and identifying routes around contaminated areas.

　　(2) Countermobility denies mobility to enemy forces. It limits the maneuver of enemy forces and enhances the effectiveness of fires. Countermobility missions include obstacle building and smoke generation.

　　(3) Survivability operations protect friendly forces from the effects of enemy weapons systems and from natural occurrences. Hardening of facilities and fortification of battle positions are active survivability measures. Military deception, OPSEC, and dispersion can also increase survivability.

NOTE:　　For specifics on combat engineer functions refer to FM 5-100.

　　b.　**Essential Mobility/Survivability Tasks.** An essential mobility/survivability task (EMST) is a specified or implied BOS-specific task that is critical to mission success. Identification of the essential tasks helps to focus the development of plans, staff coordination, and allocation of resources. The staff, typically the maneuver support elements (engineer, chemical, and military police staff officers) identify the EMSTs. Failure to achieve an EMST may require the commander to alter his tactical or operational plan.

　　(1) A fully developed EMST has a task, purpose, method, and effects. The task describes what objective (number of lanes, MSR capability, bridging capability, block, turn, fix, and disrupt, protection levels, and minimum number of survivability positions) must be achieved 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. The method describes how the task will be accomplished by assigning responsibility to maneuver units, supporting units, or delivery assets and providing amplifying information or restrictions.

　　(2) The approved EMSTs are described in the concept of operations in the base order. The concept of operations includes the logical sequence of EMSTs that, when integrated with the scheme of maneuver, will accomplish the mission and achieve the commander's intent. The scheme of engineer operations, also in the base order, describes the detailed, logical sequence of mobility, countermobility, and survivability operations, general engineer tasks, decon, smoke, and force protection tasks and their impact on friendly and enemy units. It details how engineers expect to execute the mobility, countermobility, survivability plan in accordance with the time and space of the battlefield to accomplish the commander's essential mobility, countermobility, and survivability tasks.

　　c.　**Task Organization of Engineers.** Engineer units serve two roles in the maneuver battalion. The first and most important role is as a force enabler. In this role, the engineer

unit resources maneuver units with engineer assets to enable them to accomplish their assigned tasks. The second role is that of a force provider. In this role the engineer unit executes assigned tasks within the framework of the scheme of operations. Clearly identifying the EMSTs across the width and depth of the battlefield will drive the logical task organization of mobility/survivability assets. Engineers execute essential unit tasks to support the accomplishment of essential mobility, countermobility, and survivability tasks. Engineer elements should be task-organized because an EMST dictates an essential unit task. If a maneuver unit does not have a specified EMST that requires engineer support, then the engineer element should be under the control of their higher headquarters or massed to accomplish EMSTs elsewhere in the brigade's AO.

10-16. MOBILITY
At the tactical level, superior mobility is critical to the success of the force. Mobility facilitates the momentum and freedom of movement and maneuver of forces by reducing or negating the effects of existing or reinforcing obstacles. Within this context, the emphasis of engineer integration is on mobility operations. Due to the full-spectrum capability of the SBCT and the nonlinear, asymmetric nature of the enemy, the potential exists for the force to encounter a wide variety of existing and reinforcing obstacles. To counter this potential, the commander, staff, and task-organized engineers plan, organize, and prepare to perform mobility tasks using the full range of organic and augmentation mobility assets. These mobility tasks include combined arms route clearance, combined arms breaching, and maintaining area mobility.

a. **Route Clearance.** Route clearance is a combined-arms operation typically executed by a maneuver company or maneuver battalion. Engineers reduce or clear obstacles as part of a route-clearance mission. Units must clear lines of communication of obstacles and enemy activity that disrupt AO circulation. Units must conduct route clearance to ensure that LOC enable safe passage of combat, combat support, and CSS organizations. Clearance operations are normally conducted in a low-threat environment. The significant difference between breaching and clearing operations is that breaching usually occurs during an attack (while under enemy fire) to project combat power to the far side of an obstacle. Route clearance focuses on opening LOCs to ensure the safe passage of combat and support organizations within an AO. Details on route clearance are covered in FM 3-34.2.

b. **Combined Arms Breaching.** Engineers reduce lanes in obstacles as part of a combined arms breaching operation. Because of the potentially asymmetrical, nonlinear nature of operations, engineers must be prepared to perform mounted and dismounted reduction tasks using manual, mechanical, and explosive reduction means. Through reverse breach planning, the staff identifies critical mobility tasks, allocates reduction assets, and determines the breach organization (support, assault, and breach force). Keys to allocating reduction assets include identifying all reduction tasks within the zone or axis, matching specific reduction assets to each task, and planning 50-percent redundancy in reduction assets for each task. For more specific information on combined arms breaching, refer to FM 3-34.2.

c. **Area Mobility.** Generating and sustaining combat power requires the maneuver battalion to maintain area mobility. Area mobility operations include clearing unexploded ordinance, clearing residual minefields, tracking dirty battlefield effects, and MSR repair

and maintenance. Limited organic assets necessitate augmentation to preserve area mobility. The maneuver battalion staff identifies shortfalls in capability and coordinates with the brigade to request additional assets.

10-17. COUNTERMOBILITY
Countermobility is the augmentation of natural or manmade terrain (urban) with obstacle systems integrated with direct and or indirect fire systems to disrupt, fix, turn, or block the enemy while the maneuver commander destroys the enemy's combat capabilities with increased time for target acquisition. The commander and staff integrate obstacles within the maneuver plan, enforcing adherence to obstacle emplacement authority and obstacle control measures. Task-organized engineers construct limited conventional minefields, ground emplaced scatterable minefields, special munitions, and explosive and non-explosive obstacles in support of the scheme of maneuver. (FM 5-100 is the primary reference for countermobility planning.)

10-18. SURVIVABILITY
Survivability encompasses the development and construction of protective positions such as earth berms, dug-in positions, and overhead protection as a means to mitigate the effectiveness of enemy weapon systems. Significant survivability efforts will require engineer augmentation. The staff must plan and prioritize survivability efforts. The plan should specify the level of survivability for each battle position and the sequence in which they receive support (if available). Additional considerations for survivability planning include command and control of digging assets, site security (including air defense coverage), CSS (fuel, maintenance, and Class I), and movement times between BPs. (FM 5-103 is the primary reference for survivability planning.)

10-19. GENERAL ENGINEERING
General engineering encompasses those tasks that establish and maintain infrastructure that is required to conduct and sustain military operations. Such tasks include construction and repair of lines of communication, main supply routes, airfields, utilities and logistical facilities. Due to the austere organization of the Stryker brigade engineer company, general engineering tasks will require augmentation from outside the brigade. (FM 5-104 is the primary reference for general engineering planning.)

10-20. GEOSPATIAL ENGINEERING
Geospatial engineering is the collection, development, dissemination, and analysis of positionally accurate terrain information that is tied to some earth reference, to provide mission-tailored data, tactical decision aids, and visualization products that define the character of the zone for the maneuver commander. The staff should identify required tactical decision aids and coordinate with the MANSPT cell at brigade for the necessary products. Products commonly provided include common map backgrounds, line of sight analysis, cross-country mobility overlays, artillery slope overlays, and specialized imagery products. (FM 3-34.230 is the primary reference for geospatial engineering planning.)

10-21. STRYKER BRIGADE ENGINEER COMPANY

The Stryker brigade engineer company has three combat mobility platoons, one mobility support platoon, and a company headquarters section (Figure 10-4). The engineer company is the lowest engineer echelon organic to the SBCT that can plan and execute continuous 24-hour operations in support of SBCT operations. The engineer company can task-organize its platoons and squads to subordinate maneuver units to provide mission- or task-specific engineer packages, but it may perform as an engineer pure element as dictated by the situation.
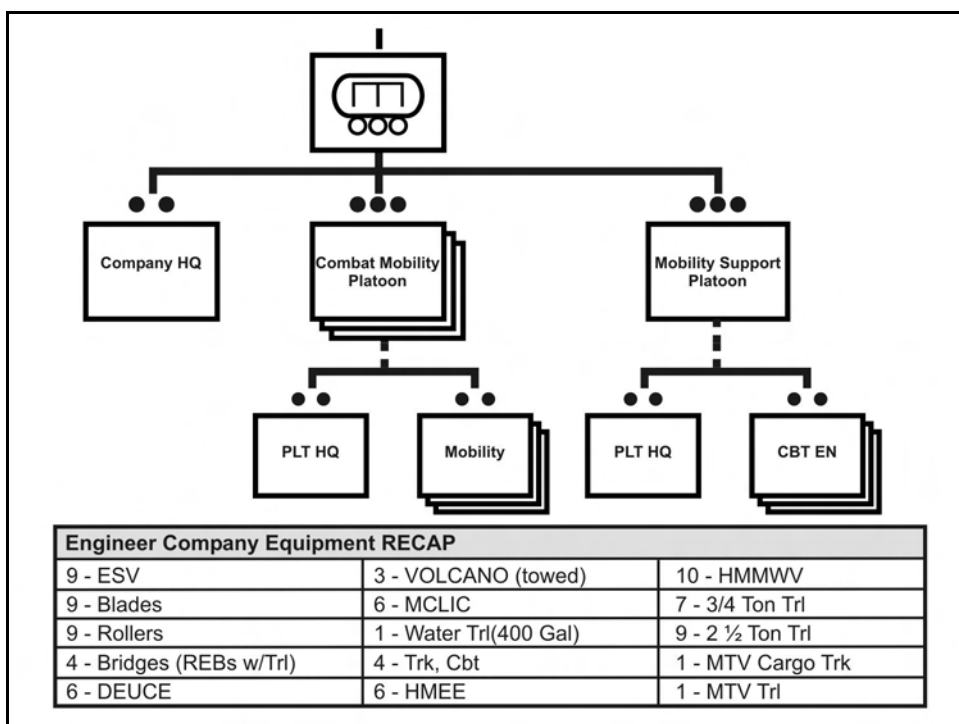
Figure 10-4. SBCT medium engineer company organization.

a. **Combat Mobility Platoon.** The combat mobility platoon is normally the lowest-level engineer unit that can effectively accomplish independent mounted engineer missions and tasks. It is the basic building block of engineer force allocation and task organization, and it can fight as part of the company or as part of a maneuver battalion. The engineer platoon consists of a platoon headquarters section and three combat engineer squads. It is capable of fighting both mounted and dismounted. The combat mobility platoon may receive augmentation in the form of special equipment from the engineer company's mobility support platoon (Figure 10-5). Organic combat mobility platoon equipment includes engineer squad vehicles (ESVs) with mountable rollers and blades, mine-clearing line charges, and multiple-delivery mine systems (Volcano). They may receive a rapidly emplaced bridge system, deployable engineer universal combat earthmover (DEUCE) and or improved high mobility engineer excavator (IHMEE) from the mobility support platoon. The platoon or its squads may be task-organized to infantry companies based on the mission, situation, and identified mobility tasks. Engineer squads and individual engineer soldiers may be task-organized with maneuver battalion

reconnaissance platoons to perform specific missions such as reconnaissance, breaching, and reserve demolition target preparation. Engineer squads normally carry a variety of explosives, demolitions, and common SBCT weapons. The eight-man mobility squad is the minimum force required to provide effective dismounted maneuver support.
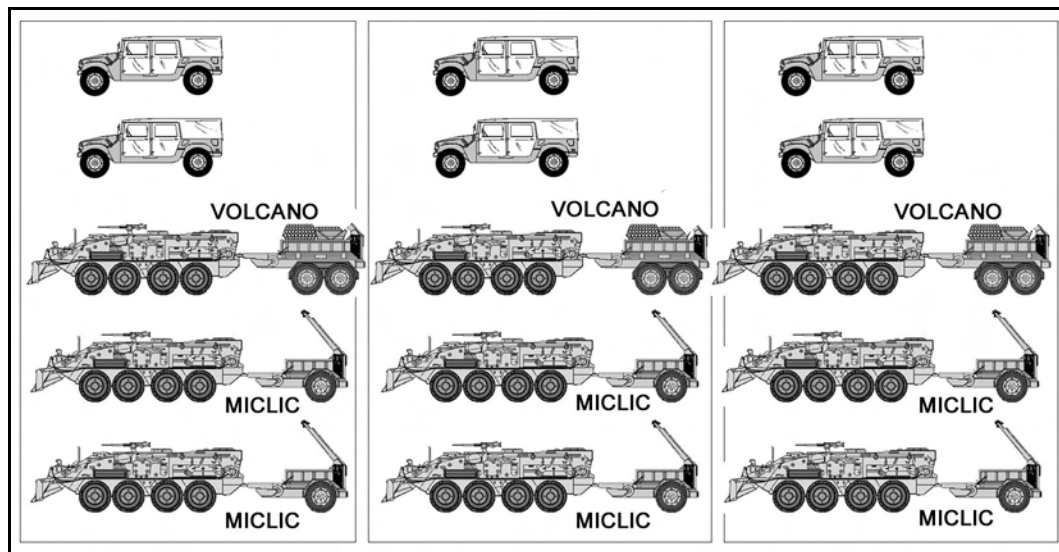
Figure 10-5. Three combat mobility platoons.

b. **Mobility Support Platoon.** The mobility support platoon consists of a platoon headquarters section and three equipment-based mobility sections (Figure 10-6, page 10-22). Unlike the combat mobility platoon, the mobility support platoon is not organized to operate independently during offensive operations. Each section is structured to provide reduction equipment augmentation (focused on reducing enemy obstacles and fortifications) to each of the three combat mobility platoons. The platoon provides the commander with specialized equipment capabilities to weight the main effort. Each section has gap crossing, obstacle reduction, special tool, and light blade capabilities. The same task organization and equipment required for mobility operations provide a limited capability for countermobility, survivability, and sustainment operations.
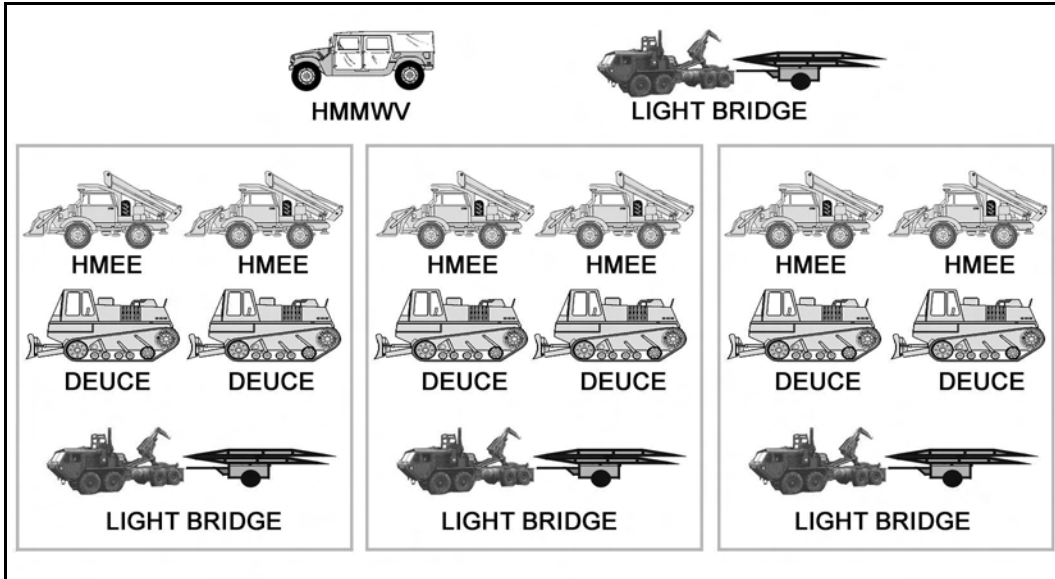
Figure 10-6. Mobility support platoon.

10-22. MISSION

The engineer company's primary mission is to provide focused mobility to the SBCT. Specifically, the company provides combat engineering support (mobility, countermobility, and survivability), force support (general engineering and force protection), and terrain visualization (topographic) to support a combination of offensive, defensive, stability, and support operations to achieve full-spectrum dominance. Limited countermobility, survivability, and sustainment engineering capability is possible using the same force structure required for the mobility mission.

   a. **Capabilities.** The engineer company is equipped with reduction assets for existing, natural, and reinforcing obstacles in open, rolling terrain and in challenging, complex, and urban terrain. Medium-weight bridging assets provide the SBCT with enhanced mobility for limited dry and wet gap crossing. The company's force protection capability reduces the SBCT's exposure to direct and indirect fires. Topographic capabilities assist the SBCT in assessing the enemy's probable avenue of approach or defensive positions. Limited countermobility assets enhance the SBCT's ability to preserve and protect friendly forces; to shape enemy maneuver; and to gain, retain, or secure the positional advantage. The engineer company's limited survivability capability preserves the SBCT's combat power during assembly area and base camp operations and while in a transition to the defense. Limited sustainment capabilities provide the SBCT with enhanced movement, maneuver, and force protection throughout the SBCT area of responsibility (AOR). The engineer company has no dedicated reconnaissance assets; however, with measured risk to organic mobility and force protection support, it has the capability to provide engineer reconnaissance teams to augment the infantry maneuver battalions and RSTA squadron.

   b. **Planning.** The engineer company commander may be the maneuver battalion engineer for the maneuver battalion that is the mobility main effort or has a majority of the engineer company task-organized to it. The company executive officer or a platoon leader may serve as the maneuver battalion engineer for the mobility supporting effort. If

a platoon leader performs the duty as the maneuver battalion engineer, he then has a dual role as a primary special staff officer and a platoon leader.

10-23. SCATTERABLE MINES

Scatterable mines are remotely delivered or dispensed by aircraft, artillery, missile, or ground dispensers and laid without pattern. All US SCATMINEs have a limited active life and self-destruct (SD) after that life has expired. The duration of the active life varies with the type of delivery system and mine.

a. SCATMINEs provide the commander with a means to respond to a changing enemy situation with their flexibility and rapid emplacement capabilities. They enable the commander to emplace minefields rapidly in enemy-held territories, contaminated territories, and other areas where it is impossible for engineers to emplace conventional minefields. Some systems allow for rapid emplacement of minefields in friendly areas.

b. During the war gaming process, the engineer--in conjunction with S3, S2, and FSO--identifies the requirement to respond to an enemy action with SCATMINEs. He then determines the minefield location, size, density, emplacement and SD times, delivery method, and the trigger (decision point) for execution.

10-24. SCATMINE CAPABILITIES

SCATMINEs can be emplaced more rapidly than conventional mines, so they provide a commander with greater flexibility and more time to react to changes in situations. The commander can use SCATMINEs to maintain or regain the initiative by acting faster than the enemy. Using SCATMINEs also helps preserve countermobility resources that can be used to conduct other operations on the battlefield. With the reduction in the size of divisional engineer units, SCATMINEs are increasingly important.

a. **SCATMINE Placement.** All SCATMINEs are rapidly emplaced. This enhances battlefield agility and allows the maneuver commander to emplace mines to best exploit enemy weaknesses. SCATMINEs can be used as situational obstacles or to attack enemy formations directly through disrupt, fix, turn, and block obstacles. Modern fusing, sensing, and antihandling devices (AHDs) improve the ability SCATMINEs to defeat enemy attempts to reduce the minefield.

b. **Increased Tactical Flexibility.** Upon expiration of the SD time, the minefield is cleared by self-detonation and the commander can move through an area that was previously denied to enemy or friendly forces. In many cases, the SD period may be set at only a few hours. This feature allows for effective counterattacks to the enemy's flank and rear areas. Table 10-2 defines when certain mines begin self-destruction and when destruction is complete.

SD Time	SD Window Begins
4 hours	3 hours 12 minutes
48 hours	38 hours 24 minutes
5 days	4 days
15 days	12 days

Table 10-2. SD windows.

c. **Efficiency.** SCATMINEs can be emplaced by a variety of delivery methods. Fixed-wing aircraft, helicopters, artillery, manpack, or ground vehicles can deploy them.

They satisfy the high mobility requirements of modern warfare and reduce manpower, equipment, and tonnage requirements with their emplacement.

　d. **Increased Lethality.** SCATMINEs use an explosive technique that produces a full-width kill. The effect produces a mobility kill against a vehicle's engine, track, or drive-train, or it produces a catastrophic kill by setting off the onboard ammunition, killing or incapacitating the crew, or destroying the vehicle's weapons systems. SCATMINEs are designed to destroy any tank currently available.

10-25. SCATMINE LIMITATIONS

The following are limitations of SCATMINEs:

　a. **Extensive Coordination.** Because SCATMINEs are a very dynamic weapon system, proper coordination with higher, adjacent, and subordinate units is extremely important. To prevent friendly casualties, all affected units must be notified of the location and the duration of scatterable minefields.

　b. **Proliferation of Targets.** SCATMINEs are regarded by some commanders as easy solutions to tactical problems. Target requests must be carefully evaluated, and a priority system must be established because indiscriminate use of weapons systems results in rapid depletion of a unit's basic load. Controlled supply rates (CSRs) are likely to be a constraint in all theaters.

　c. **Visibility.** SCATMINEs are highly effective, especially when fires and obscurants strain the enemy's C2. SCATMINEs lay on the surface of the ground, but they are relatively small and have natural coloring.

　d. **Accuracy.** SCATMINEs cannot be laid with the same accuracy as conventionally emplaced mines. Remotely delivered SCATMINE systems are as accurate as conventional artillery-delivered or tactical aircraft-delivered munitions.

　e. **Orientation.** Between 5 and 15 percent of SCATMINEs come to rest on their edges. Mines with spring fingers are in the lower percentile, and mines landing in mud or snow more than 10 centimeters deep are in the higher percentile. When employing ADAMs or RAAMs in more than 10 centimeters of snow or mud, use high-angle fire and increase the number of mines. Melting of the snow may also cause the mines to change positions and activate AHDs.

　f. **Lethality and Density.** Scatterable minefields are employed to reduce the enemy's ability to maneuver, mass, and reinforce against friendly forces. By producing specific obstacle effects (disrupt, fix, turn, or block [Table 10-3]), they increase the enemy's vulnerability to fires as he maneuvers. To achieve this effect, individual minefields must be emplaced with varying degrees of lethality. Changing the minefield density is a primary way to vary lethality and the effect. If the obstacle is not resourced or insufficient density is achieved, the planned leathality will not be achieved.

Disrupt	Turn
Low density. Probability of encounter: 40 to 50 percent. Linear density: 0.4 to 0.5 mine per meter.	High density. Probability of encounter: 75 to 85 percent. Linear density: 0.9 to 1.1 mines per meter.
Fix	Block
Medium density. Probability of encounter: 50 to 60 percent. Linear density: 0.5 to 0.6 mines per meter.	High density. Probability of encounter: 85+ percent. Linear density: More than 1.1 mines per meter.

Table 10-3. Lethality and density.

10-26. SCATTERABLE MINE DELIVERY SYSTEMS

SCATMINE delivery systems include howitzers, the Volcano, and the modular pack mine system.

a. **Howitzer.** A 155-mm howitzer delivers ADAMs and RAAMs. There are no special modifications or adaptations necessary to the firing system. Mines are contained within a projectile and are dispensed while the projectile is in the air. The effective range for the M109A6 is 17,740 meters. The wedge-shaped ADAM is a bounding-fragmentation mine that deploys up to seven tension-activated tripwires six meters away from the mine. After ground impact, tripwires are released and the mine is fully armed. The lethal casualty radius is between 6 and 10 meters. The RAAM mine uses a self-forging fragmentation (SFF) warhead, has a magnetic-influence fuze, weighs 1.7 kg, and has a small (12-cm diameter by 6-cm height) cylindrical shape.

b. **Multiple-Delivery Mine System.** The multiple-delivery mine system (Volcano) can be dispensed from the air or on the ground. It can be mounted on any 5-ton truck, an M548 tracked cargo carrier, a heavy expanded mobility tactical truck (HEMTT), a palletized load system (PLS) flat-rack, or a UH-60 Blackhawk helicopter. The mixture of mines is fixed and cannot be altered. All canisters are capable of dispensing mines with 4-hour, 48-hour, and 15-day SD times. The SD times are field-selectable prior to dispensing and do not require a change or modification to the mine canister. Reload time (not including movement time to the reload site) for an experienced four-man crew is about 20 minutes. The average time to emplace one ground Volcano load (160 canisters) is 10 minutes. The organic Volcanos of the SBCT are trailer mounted and contain two racks of canisters versus the four racks of the mechanized combat engineer's vehicle mounted Volcano systems.

c. **Modular Pack Mine System.** The MOPMS is a man-portable, 162-pound, suitcase-shaped mine dispenser. The dispenser contains 21 mines (17 AT and 4 antipersonnel AP) in seven tubes with three mines located in each tube. When dispensed, an explosive propelling charge at the bottom of each tube expels mines through the container roof. Mines are propelled 35 meters from the container in a 180-degree semicircle. The safety zone around one container is 55 meters to the front and sides and 20 meters to the rear.

(1) Mines are dispensed on command using an M71 remote-control unit (RCU) or an electronic initiating device. Once mines are dispensed, they cannot be recovered or reused. If mines are not dispensed, the container may be disarmed and recovered for later use. The RCU can recycle the 4-hour SD time of the mines three times, for a total

duration of approximately 13 hours. Mines with a 4-hour SD time will begin to self-destruct at 3 hours and 12 minutes. All active mines must be recycled within 3 hours of the initial launch or last recycle. This feature makes it possible to keep the minefield emplaced for longer periods if necessary. The RCU can also self-destruct mines on command, allowing a unit to counterattack or withdraw through the minefield, as necessary, rather than waiting for the SD time to expire. The RCU can control up to 15 MOPMS containers or groups of MOPMS containers from a distance of 300 to 1,000 meters by way of separate pulse-coded frequencies. Coded frequencies defeat enemy electronic countermeasures directed against the system.

(2) If the M71 RCU is unavailable, a direct wire link is used in conjunction with an M32, M34, or M57 blasting machine. By using the M32 10-cap blasting machine, one MOPMS dispenser can be detonated at a maximum range of 1,000 meters. The M34 50-cap blasting machine can detonate one MOPMS at a maximum range of 3,000 meters. (Due to internal resistance, the maximum range is decreased by 400 meters for each additional MOPMS connected in series.) The M57 Claymore-type firing device (FD) can fire only one MOPMS at a maximum range of 100 meters. When controlled by direct wire, MOPMS dispensers cannot be command-detonated, and the SD time cannot be recycled.

(3) The MOPMS provides a self-contained, on-call minefield emplacement capability for all forces. It can be command-detonated, reused (if mines are not dispensed), and directly emplaced to provide complete and certain coverage of small or critical targets. The ability to command-detonate mines or extend their SD time provides an added flexibility not currently available with other SCATMINE systems. With its unique characteristics, the MOPMS is ideally suited for the following minefield missions:

- Emplacing hasty and deliberate protective minefields.
- Emplacing nuisance minefields (on trails, crossing sites, landing zones, drop zones, and road junctions).
- Emplacing tactical disrupt and fix minefields.
- Closing gaps and lanes in existing minefields.
- Temporarily closing counterattack routes.
- Supporting ambushes.
- Supporting military operations in urban terrain.

d. **The Raptor Intelligent Combat Outpost.** The Raptor introduces an entirely new concept to the combined arms team. The Raptor is a suite of munitions, sensors, communications systems, and a control station that enables the commander to shape his battlespace. The Raptor is comprised of advanced overwatch sensors, command and control nodes or gateways, a control station, and munitions. The Raptor system type-categorizes enemy vehicles, reports, and engages vehicles (Figure 10-7).
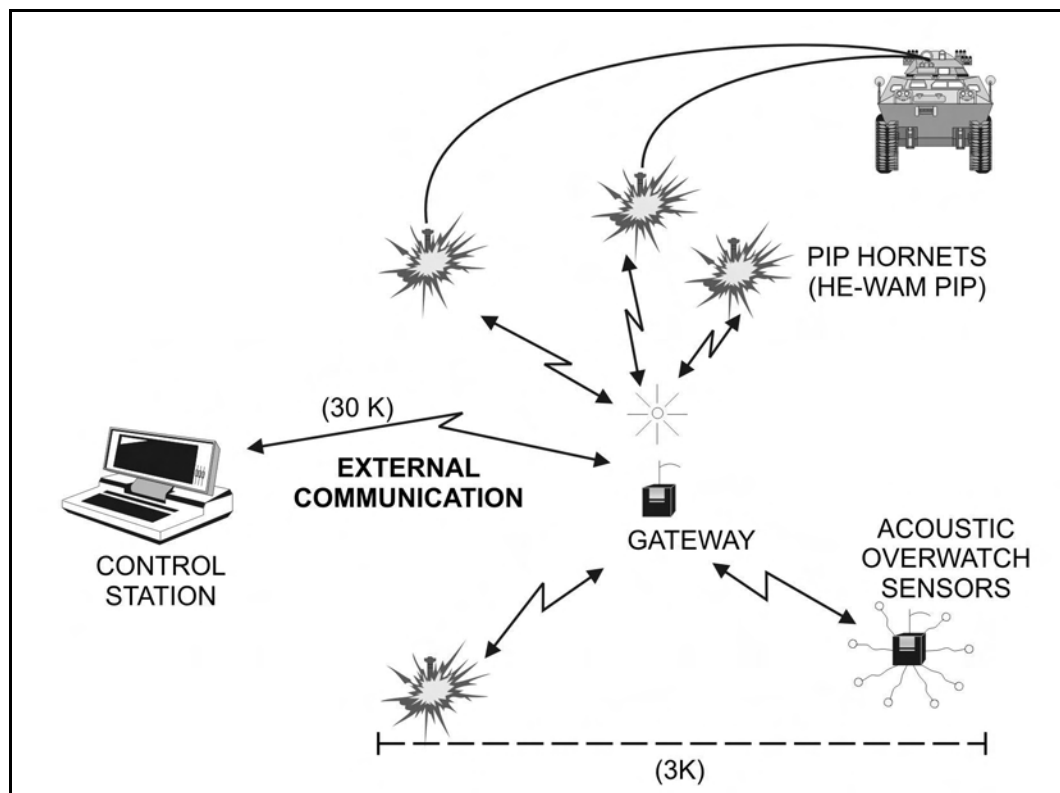
Figure 10-7. Raptor concept.

(1) The Raptor can be ordered or programmed to develop coordinated attacks with other minefields and direct and indirect fire weapons. It has standoff detection and engagement capabilities. The Raptor can be inactivated, allowing freedom of maneuver while still providing near-real-time intelligence. It attacks from the side or top at ranges up to 100 meters. The Raptor--

- Can be used as a stand-alone tactical obstacle or as reinforcement to other conventional obstacles (Figure 10-8, page 10-28).
- Disrupts and delays the enemy, allowing long-range precision weapons to engage more effectively. This feature is particularly effective in non-line of sight (LOS) engagements.
- Can communicate with its employing unit for remote ON/OFF/ON or can be programmed for battlespace intelligence reporting. The battlespace intelligence data may include target descriptions, numbers, and the direction and rate of movement. It can also provide an early warning of the enemy's activity.
- Can communicate with other munitions for conducting coordinated attacks.

(2) The Hornet PIP munition is a subset of the Raptor. Raptor is the first of several systems fielded to Force XXI units. The Raptor provides an effective situational obstacle. Some examples of situational employment include early disruption of moving enemy forces, coverage of counterattack routes, and provision of flank security. When employed in these capacities, the ON/OFF/ON or programmed capability maintains the obstacle effect but does not hamper the maneuver commander's flexibility.
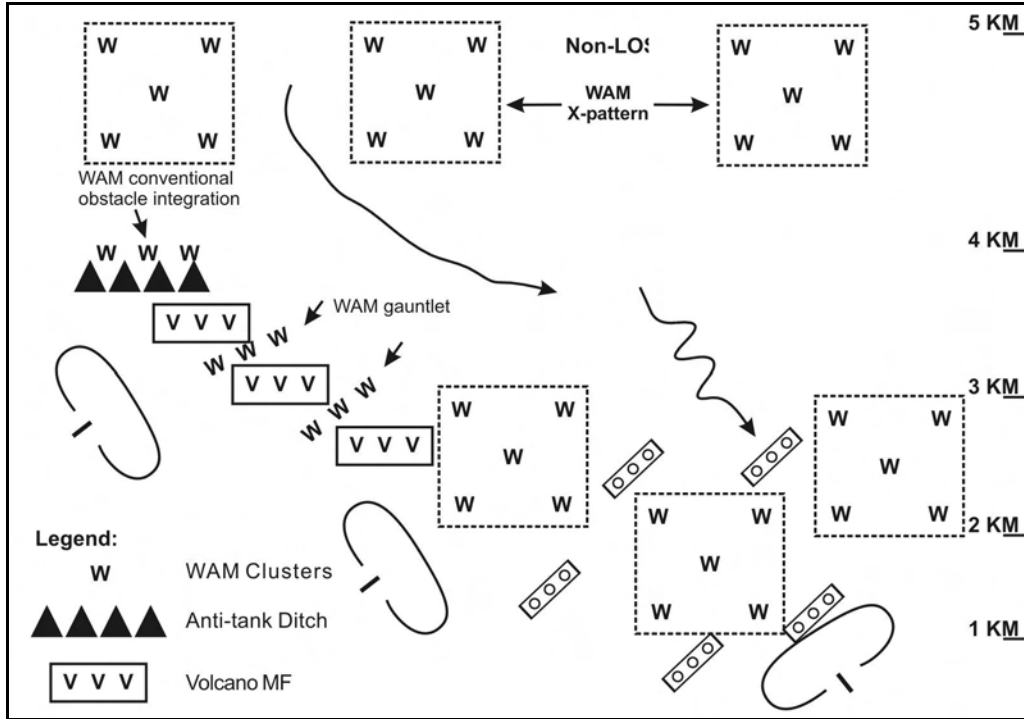
Figure 10-8. Raptor integrated with other obstacle types.

10-27. COMMAND AND CONTROL OF SCATMINES

Due to the delivery means, C2 of SCATMINEs is more complex than with conventional mines. SCATMINEs are very dynamic weapons systems because they can be rapidly emplaced and then cleared by way of their SD capability. In addition, the physical boundary of a scatterable minefield is not clearly defined. These characteristics require impeccable communications and coordination to ensure that all friendly units know where mines are located, when they will be effective, and when they will self-destruct.

   a. **Emplacement Authority.** The corps commander has emplacement authority for all scatterable minefields within the corps AO. He may delegate this authority to lower echelons according to the guidelines in Table 10-4.

System	Emplacement
Ground or artillery-delivered, with SD time greater than 48 hours (long duration).	The Corps commander may delegate emplacement authority to division level, who may further delegate to brigade level.
Ground or artillery-delivered, with SD time of 48 hours or less (short duration)	The corps commander may delegate emplacement authority to division level, who may further delegate it to brigade level, who may further delegate to BN level.
Aircraft-delivered (Gator), regardless of SD time.	Emplacement authority is normally at corps, theater, or army command level, depending on who has air-tasking authority.
Helicopter-delivered (Volcano), regardless of SD time.	Emplacement authority is normally delegated no lower than the commander who has command authority over the emplacing aircraft.
MOPMS when used strictly for a protective minefield.	Emplacement authority is usually granted to the company or base commander. Commanders at higher levels restrict MOPMS use only as necessary to support their operations.

Table 10-4. Emplacement authority.

(1) Based on how the commander wants to shape the battlefield, he must specifically delegate or withhold the authority to employ SCATMINE systems. The commander's guidance concerning SCATMINEs is found in the unit's OPORD or OPLAN. Additional information is included in engineer and fire-support annexes, if used.

(2) Due to the complete control a commander has over the MOPMS, emplacement authority guidelines do not apply to the MOPMS. It is impractical for the corps or SBCT commander to authorize every MOPMS protective minefield. Therefore, authority to emplace MOPMS minefields is specifically delegated. In general, units can emplace MOPMS protective minefields as required for their own self-defense and report them as they do any protective obstacle. Any MOPMS minefield used as part of an obstacle plan must be reported as a scatterable minefield.

b. **Coordination.** Table 10-5, page 10-30, outlines basic responsibilities of key commands, staff elements, and units. The fire support officer is involved in planning artillery-delivered (ADAM and RAAM) SCATMINEs, and the air liaison officer is involved in planning air-delivered (Gator) SCATMINEs. The engineer has primary responsibility for planning and employing SCATMINE systems. It is vital that coordination be conducted with all units and subunits that will be affected by the employment of SCATMINEs. A scatterable minefield warning (SCATMINWARN) is sent to all affected units before the emplacement of the minefield.

ELEMENT	RESPONSIBILITY
G3/S3 with Engineer FSCOORD/ALO	Plan and coordinate the minefield location, size, composition, density, SD time, safety zone, and emplacement time.
	Plan and coordinate SEAD for air-delvered SCATMINEs.
	Designate and brief the emplacing unit.
	Incorporate the minefield and safety zone into the obstacle plan.
	Receive and forward the scatterable minefield report and record.
	Disseminate information concerning the minefield in the SCATMINWARN to adjacent and subordinate units prior to laying.
	Post operations maps with the minefield location, safety zone, and DTG of the SD time; disseminate the SCATMINWARN 1 hour prior to initiation of the SD sequence.
Emplacing Unit	Calculate the logistical requirements.
	Calculate the safety zone.
	Emplace the minefield.
	Report the amount of ammunition expended.
	Prepare and forward the scatterable minefield report and record to the authorizing commander via appropriate channels.
Maneuver Units	Be aware of the calculated safety-zone boundary and advise subunits of its location.

Table 10-5. Coordination responsibilities.

10-28. SCATMINE MARKING

The maneuver unit that is responsible for the area of ground in which the minefield is emplaced is also responsible for marking the minefield. This procedure normally requires direct coordination between elements of the maneuver command (usually the engineer) and the delivering or emplacing unit. However, it is unrealistic to expect units to mark artillery-delivered ADAM and RAAM, air-delivered Volcano, or Gator minefields. For

this reason, units operating in the vicinity of these minefields must know calculated safety zones and use extreme caution.

a. **Safety Zones.** A safety zone is an area where a stray or outlying mine has a chance of landing and laying at rest. The commander must prevent friendly forces from maneuvering into the safety zone during the minefield's life cycle. Depending on its specific location on the battlefield, the safety zone may be marked with a fence. The safety zones around Volcano minefields are shown in Figure 10-9.

Figure 10-9. Ground Volcano minefield.

b. **Fragment Hazard Zones.** If an AT mine that is oriented on its side self-destructs, the explosive-formed penetration (EFP) can theoretically travel 640 meters. This is called the maximum fragment hazard zone (Figure 10-9); however, the chances of being struck are negligible at this distance. Tests indicate that the acceptable risk distance is 235 meters from the outer edges of the minefield's safety zone. This fragment hazard zone is also associated with Gator and MOPMS AT mines. Commanders must be aware of the fragment hazard zone when the MOPMS is used for protective minefield missions. Use Table 10-6, page 10-32, to determine the safety and fragment hazard zones.

SYSTEM	SAFETY ZONE	FRAGMENT HAZARD ZONE
ADAM/RAAM	500 to 1,500 meters from aim point(s) (depends on delivery method)	235 meters from the outside dimensions of the safety zone
Gator	925 x 475 meters from aim point(s)	1,395 x 945 meters from aim point(s)
Ground Volcano	1,150 x 160 meters	235 meters from start and stop point and the center line
Air Volcano	1,315 x 200 meters	235 meters from start and stop points and the center line
MOPMS	See FM 20-32 for specific placement	235 meters from the outside dimensions of the safety zone.

Table 10-6. Safety and fragment hazard zones.

c. **ADAMs and RAAMs Safety Zones.** The FSO is responsible for obtaining safety zones. Safety zones may be computed by the DS battalion FDC or by the FSO using the safety zone table below (Table 10-7). An alternative method is to use the mine safety template (discussed below). The engineer is responsible for disseminating the safety zones to appropriate units.

PROJECTILE AND TRAJECTORY	RANGE (KM)	MET + VE/TRANSFER TECHNIQUE	OBSERVER ADJUST TECHNIQUE
RAAM Low-Angle	4	500 x 500	500 x 500
	7	550 x 550	500 x 500
	10	700 x 700	550 x 550
	12	850 x 850	550 x 550
	14	1000 x 1000	650 x 650
	16	1050 x 1050	650 x 650
	17.5	1200 x 1200	650 x 650
ADAM Low-Angle	4	700 x 700	700 x 700
	7	750 x 750	700 x 700
	10	900 x 900	750 x 750
	12	1050 x 1050	750 x 750
	14	1200 x 1200	850 x 850
	16	1250 x 1250	850 x 850
	17.5	1400 x 1400	850 x 850
RAAM or ADAM High-Angle	4	750 x 750	700 x 700
	7	900 x 900	700 x 700
	10	1050 x 1050	750 x 750
	12	1200 x 1200	750 x 750
	14	1400 x 1400	850 x 850
	16	1500 x 1500	850 x 850
	17.5	1400 x 1400	850 x 850

Table 10-7. ADAMs and RAAMs minefield safety zones.

d. **Use of the Mine Safety Template.** Enter the template (Figure 10-10, page 10-34) with the fired minefield data:

- Technique (meteorological [MET] + velocity [VE]/transfer or observer adjust).
- Trajectory (high or low angle).
- Type of projectile fired (RAAM or ADAM).
- Range (to minefield center).
- Aim point coordinates (center or left and right).

Center the selected template safety zone square over the aim point(s). Draw a square to establish the minefield safety zone.
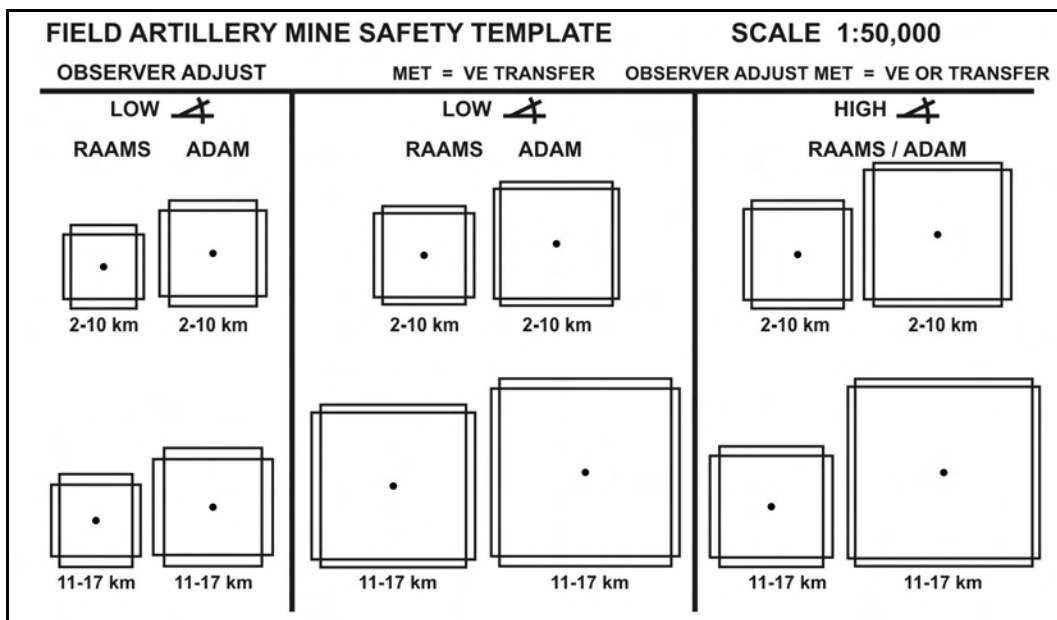
Figure 10-10. ADAMs and RAAMs minefield safety template.

10-29. NUCLEAR, BIOLOGICAL, AND CHEMICAL

The battalion chemical section advises the commander on all NBC matters. The chemical section is responsible for collecting, consolidating, and distributing all NBC reports from subordinate, adjacent, and higher units. The chemical section inspects chemical equipment and trains subordinate units on NBC defensive tasks prior to deployment and in garrison. As a member of the S-3 plans and operations cell, the battalion chemical officer is normally found in the main CP. The chemical officer acts as the liaison with any attached chemical elements. He is required to coordinate closely with the S-2 on the current and updated NBC threat. Together they develop NBC named areas of interest. The chemical officer coordinates with the fire support and aviation personnel on planned smoke operations and advises them of hazard areas. He also coordinates with the S-4 on NBC logistics matters (such as mission-oriented protective posture, protective mask filters, and fog oil) and to identify "clean" and "dirty" routes and contaminated casualty collection points. A subset of the survivability mission is NBC defensive measures. Chemical staff personnel adhere to three principles.

a. **Avoidance.** Avoiding NBC attacks and hazards is the key to NBC defense. Avoidance involves both active and passive measures. Passive measures include training, camouflage, concealment, hardening positions, and dispersion. Active measures include detection, reconnaissance, alarms and signals, warning and reporting, marking, and contamination control.

b. **Protection.** NBC protection is an integral part of operations. Techniques that work for avoidance also work for protection, such as shielding soldiers and units and shaping the battlefield. Activities that comprise protection involve sealing or hardening positions, protecting soldiers, assuming MOPP, reacting to attack, and using collective protection.

c. **Decontamination.** NBC decontamination prevents the erosion of combat power and reduces possible casualties resulting from inadvertent exposure or failure of

protection. Decontamination allows commanders to sustain combat operations. Decontamination principles involve conducting decontamination as quickly as possible, decontaminating only what is necessary, decontaminating as far forward as possible, and decontaminating by priority. (See FM 3-4.)

d. **Reconnaissance.** The NBC reconnaissance platoon, organic to the RSTA squadron, is equipped with nuclear, biological, chemical reconnaissance vehicles (NBCRVs). The reconnaissance platoon provides warning and enhanced protection against the NBC threat to include accidental or deliberate release of industrial hazards and terrorism.

10-30. MILITARY POLICE SUPPORT
MP units, provided from division or corps assets, support the SBCT through their five primary battlefield functions.

a. **Maneuver and Mobility Operations.** MPs, when augmenting the SBCT, can support the maneuver and mobility functions by expediting forward and lateral movement of combat resources. MPs used in the circulation control role can perform the following functions.

(1) *Route Reconnaissance.* MPs continually monitor the condition of main supply routes; identify restricting terrain, effects of weather on routes, damage to routes, NBC contamination, and the presence of the enemy; and identify alternate MSRs, when required.

(2) *MSR Regulation and Enforcement.* MP units enforce the command's highway regulation and traffic circulation plans to keep MSRs free for resupply operations. MPs use traffic control points, roadblocks, checkpoints, holding areas, defiles, and temporary route signs to expedite traffic on MSRs.

(3) *Area Damage Control (ADC).* MP units support ADC before, during, and after hostile actions or natural and man-made disasters. ADC operations help reduce the level of damage or lessen its effect. MP support includes, but is not limited to, circulation control, dislocated civilian control, straggler control, NBC detecting and reporting, and some physical security when required.

(4) *Straggler and Dislocated Civilian Control.* MP units rejoin stragglers with their parent units, thereby preserving combat power. In conjunction with host nation forces, MP units divert dislocated civilians from MSRs and other locations needed to support maneuver units. These actions enhance unit mobility and prevent the incidence of fratricide and collateral damage.

b. **Area Security.** MPs assist the SBCT commander in addressing security and force protection to enhance the maneuver unit's freedom to conduct missions. Area security actions include zone and area reconnaissance; counterreconnaissance activities; and security of designated personnel, equipment, facilities, and critical points. These actions also include convoy and route security. Specific actions include--

(1) *Combating Terrorism.* MP units (as well as joint multinational and interagency efforts) act to oppose terrorism throughout the entire threat spectrum. These actions include antiterrorism and counterterrorism activities.

(2) *Physical Security.* MPs perform physical security and provide physical security guidance focused on physical measures designed to safeguard personnel; prevent unauthorized access to equipment, installations, material, and documents; and safeguard

against espionage, sabotage, damage, and theft. Physical security is an integral part of OPSEC.

(3) *Counterreconnaissance.* Counterreconnaissance is the cumulative result of security operations. MP units contribute to counterreconnaissance by conducting area security, screen, supporting, and guard operations, as well as OPSEC, deception, and physical security.

(4) *Personal Security.* Personal security is one of the five pillars of force protection. MP activities support force protection by providing very important person (VIP) security and security of designated personnel.

c. **Internment and Resettlement Operations.** MPs support tactical commanders by undertaking control of populations (EPW and dislocated civilians) and US military prisoners.

d. **Law and Order Operations.** MPs conduct these operations when necessary to extend the combat commander's discipline and control. These operations consist of those measures necessary to enforce laws, directives, and punitive regulations; conduct military police investigations (MPIs); and to control populations and resources to ensure the existence of a lawful and orderly environment for the commander. An evolving criminal threat will impact military operations and will require the commander to minimize the threat to forces, resources, and operations. Close coordination with host-nation civilian police can enhance MP efforts at combating terrorism, maintaining law and order, and controlling civilian populations.

e. **Police Intelligence Operations.** Police intelligence operations (PIO) consist of those measures to collect, analyze, and disseminate information and intelligence resulting from criminal activities, law enforcement, security operations, and other MP and CID operations. The collection of this information needs to be integrated into the overall ISR plan.

10-31. MILITARY POLICE COMPANY ORGANIZATION

The MP company from a heavy division, *that may be tasked to provide support to the SBCT*, consists of a company headquarters, provost marshal section, three DS MP platoons, and three GS MP platoons.

a. The provost marshal has OPCON of the MP assets provided to the brigade. The MP platoon leader directs the execution of his platoon's missions.

b. The corps MP brigade will normally provide an additional MP company to augment each division. Dependent upon METT-TC, this support may or may not be provided down to brigade level. Likewise, dependent upon METT-TC, the brigade could receive support ranging from platoon- to company-size units from the corps.

10-32. EMPLOYMENT AND PLANNING CONSIDERATIONS

Any one of the five MP battlefield functions (see Paragraph 10-31 above) could easily require an entire MP platoon and more. It is important that the factors of METT-TC be considered when using MP support. During offensive operations, MPs best support the brigade's maneuver and mobility by facilitating route movement and refugee, straggler, and or enemy prisoner of war evacuation and control and by controlling road traffic. In the defense, MPs are best employed in the area security role to enhance the brigade's maneuver and mobility. It is important that MP resources be synchronized and weighted

in support of the brigade's main effort just as any other asset. This will help maximize MP resources allocated to the brigade. MP support may not be available and or adequate to perform all necessary MP battlefield functions simultaneously. Commanders must prioritize those missions and designate other soldiers within the brigade to assist in their execution.

Section IV. AIR DEFENSE SUPPORT

Early engagement of enemy aircraft is one of the most important short-range air defense (SHORAD) employment guidelines. Air attack information is received and processed by the forward-located Sentinel elements and air battle management operations center (ABMOC). External and internal air track information is correlated by the Sentinel and FAADC3I and subsequently transmitted to the simplified handheld terminal unit (SHTU) of the firing units (FUs) and the SBCT's FAADC3I. The FAADC3I manages engagement operations, which involves taking sensing data from organic, high- to medium-altitude air defense (HIMAD) and joint sensors and passing this information to the SHORAD weapons for engagement. The air and missile defense workstation (AMDWS) manages force operations, which involves managing SHORAD assets by knowing the status, location, and posture of all assets in relation to the SBCT maneuver plan. This ensures that they can be properly supported and sustained and can provide the best coverage for the supported SBCT. This information is subsequently transmitted to subordinate units via FBCB2 (Figure 10-11).

Figure 10-11. ADA architecture.

10-33. MISSION

Air defense artillery protects the force and selected assets from aerial attack and surveillance. The primary aerial threats that must be countered by SHORAD systems are UAVs, rotary-wing aircraft, cruise missiles, and fixed-wing aircraft. The deconfliction of airspace and positive identification of friendly UAVs used by the RSTA squadron is the greatest near-term concern for the battalion commander.

10-34. ORGANIZATION

The SBCT does not contain organic ADA assets and is typically supported by an ADA battery from corps or division units (Figure 10-12). The battalion is typically supported by an Avenger or Linebacker platoon consisting of four firing units and a C2 vehicle. The platoon is organized into a headquarters section and two maneuver sections. Air defense commanders may modify platoon organizations to fit specific mission requirements. The platoon may operate in a DS role to the battalion but is more commonly in a GS role under control of the ADA battery commander.
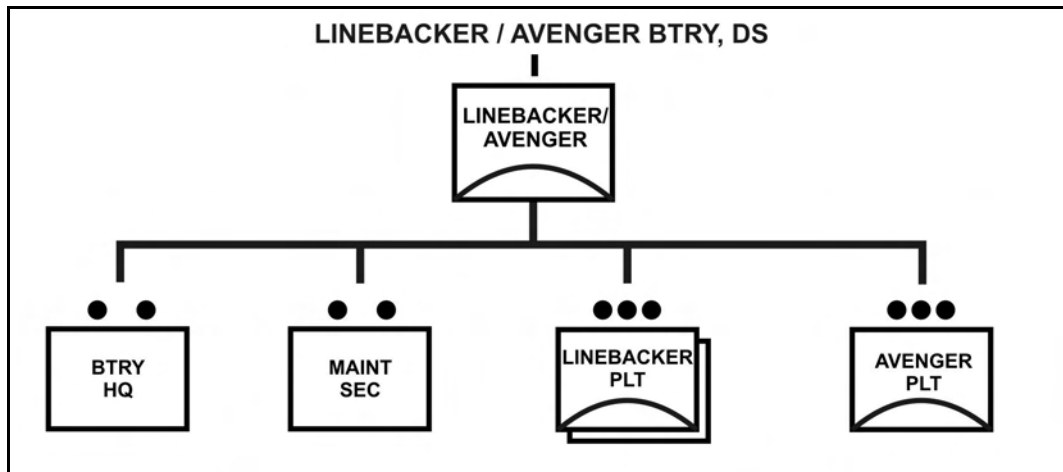

Figure 10-12. ADA battery.

10-35. AIR DEFENSE PLANNING CONSIDERATIONS

The battalion commander and his ADO integrate the firepower of all available fire systems to defeat the enemy air threat.

    a. ADA employment guidelines are used as aids for positioning individual ADA firing units. The six ADA employment guidelines are--

    (1) ***Early Engagement.*** Firing units must be positioned where they can engage enemy air platforms before the enemy can release his ordnance on or gain intelligence about friendly forces. With the mobility provided by the Linebacker, firing units should be located well forward and integrated into the supported battalion's scheme of maneuver. In less likely missions of defending a static asset, firing units should be positioned forward of the supported force along likely enemy air avenues of approach.

    (2) ***Weighted Coverage.*** Once the supported force commander designates his main effort, Linebacker firing units should be positioned along the most likely air avenues of approach to support the commander's main effort. This massing of firepower increases the Linebacker platoon's probability of killing enemy air targets. It is extremely

important that detailed, in-depth air IPB is developed prior to deciding where to weight coverage of air defense assets. Air defense focuses its efforts on the most likely avenues of approach along the supported force commander's designated main effort.

(3) ***Depth.*** Depth is achieved by positioning firing units so enemy air platforms encounter a continuous volume of fire as they approach the protected force or asset. The Linebacker platoon leader achieves depth by positioning his assets so that they can provide continuous fires along enemy air avenues, destroying the enemy as it advances toward the protected force or asset. Depth is maximized through the integration of all air defense weapons. Additional air defense assets on the battlefield (such as Stinger teams, Avenger firing units, HIMAD assets, and combined arms air defense efforts from ground forces) contribute to the creation of depth on the battlefield.

(4) ***Balanced Fires.*** Positioning air defense weapons to distribute fire equally in all directions creates balanced fires. Except for the mission of defense of a static asset, where no clear avenues of approach are identified, this guidance is seldom employed. As an example, on a flat, open battlefield characteristic of some desert environments, no specific air corridor exists. In this situation, planning for balanced fires may be viable.

(5) ***Mutual Support.*** Mutual support is achieved by positioning weapons to complement fires from adjacent firing units, thus preventing the enemy from attacking one position without being subjected to fire from one or more adjacent positions. Mutual support enhances volume of fire and covers the dead space of adjacent units. The planning range for mutual support for Stinger systems is approximately 2,000 meters.

(6) ***Overlapping Fires.*** Because of the battalion's extended battlespace and a scarcity of available Stinger systems, the air defense planner should attempt to enhance air defense protection by positioning firing units so that engagement envelopes overlap. The planning range for overlapping fires for Stinger systems is approximately 4,000 meters.

b. The FAADC3I system greatly enhances the ADO's ability to use these guidelines. The greatest impact is on early engagement. Air defense firing units must be positioned so that they are capable of engaging enemy aircraft prior to the ordnance release line (ORL). The determination of enemy air avenues of approach and ordnance loads comes from the air IPB. The SHTU enhances early warning and engagement and is issued to all ADA firing units including the ADA platoon leaders. It enables the firing units to receive early warning (40 kilometers out) air tracks (data) from the sensor, which in turn receives external air tracks (data) from the ABMOC. The sensor correlates external (ABMOC) track data with its own local data and broadcasts that data to its air defense battery, platoons, sections, firing units, and SBCT air defense LNOs. The battalion and direct support air defense firing units still broadcast flash precedence "FM voice" early warning to maneuver elements.

c. The additional feature of early warning distance (from enemy aircraft to the air defense firing unit) is enhanced by the fact that the SHTU enables the air defense firing unit to see 360 degrees out under ideal situations (20 kilometers light and special divisions interim sensor [LSDIS] and 40 kilometers ground-bases sensor [GBS]). ADA must still be attentive and suspect those areas where a pop-up or masked area (blind spot between the SHTU at the firing unit or platoon CP and the sensor) might exist and allow the enemy to reach those locations undetected.

d. Linebackers normally accompany the main body or the battalion reserve. Ultimately, Linebacker positioning is determined by the factors of METT-TC, the IPB,

and the battalion commander's priorities. The Linebacker platoon may be task-organized to provide direct support to the battalion, or be task-organized into sections to support individual companies. In either case, the battalion ADO must retain the flexibility to mass ADA assets at the critical time and place them on the battlefield to defeat the air threat. FAADC3I allows the ADO to push assets out to a broader area of coverage to provide more firepower forward, facilitate earlier engagement, and cover the flanks.

10-36. AIR DEFENSE OFFICER DUTIES

When augmented with ADA assets, the unit commander or leader will serve as the battalion's air defense officer. The ADO has dual responsibility as the ADO and ADA unit commander and or platoon leader. The ADO must participate in the MDMP as an integral member of the battalion staff. The ADO should work closely with the S2 during the IPB process and is best suited to prepare and brief the air IPB. Airspace or the aerial dimension of the battlefield is the most dynamic and fast-paced of the three dimensions. The most significant threats that must be evaluated at the battalion level for aerial IPB are UAVs, fixed-wing aircraft, and rotary-wing aircraft.

    a. The ADO's mission analysis should cover the following areas.

- *Air Threat Overview*: Air avenues of approach, type of air threat, probable threat objective, and potential to support the maneuver forces.
- *Specified, Implied, and Essential Tasks*: From the air defense perspective (for example, early warning).
- *Constraints and Restrictions*: Initial air defense warning status, weapons control status, and systems limitations.
- *Forces Available*: SHORAD, HIMAD, and sensor coverage.
- *Platoon Status*: Personnel, maintenance posture, weapons status, and missile supply.
- *Issues*: Coordination with SBCT (for example, missile supply).

    b. The ADO also--

- Assists the S3 in planning and executing the air defense portion of the operation.
- Advises the commander and S3 on the employment of air defense assets.
- Coordinates with the S3 air, FSO, and FAC for the appropriate air defense posture and A2C2.
- Controls integration of air defense elements and early warning systems.
- Recommends priorities to the commander:
  - $\Rightarrow$ *Threat*: Reverse target value analysis.
  - $\Rightarrow$ *Criticality*: Force or asset that is essential to mission accomplishment.
  - $\Rightarrow$ *Vulnerability*: Susceptibility to surveillance and attack.
  - $\Rightarrow$ *Recuperability*: In terms of time and equipment.

    c. The ADO is also responsible for the execution of the air defense plan. He must monitor the positioning and coverage provided by his platoon and other ADA assets, recommending changes to the plan based on the enemy threat and changes in the scheme of maneuver. FBCB2 allows the ADO to track his platoon assets visually to ensure proper position and coverage for the protected force. In most situations, the information provided by FBCB2 allows the supporting ADA platoon to perform a general support mission to the battalion rather than task-organizing the platoon to the maneuver

companies. This allows the ADO to command and control the supporting ADA assets and frees subordinate company commanders of this requirement.

10-37. OFFENSIVE CONSIDERATIONS
In offensive operations, air defense units move so they are best positioned to protect the supported force. The commander should consider weighting the main effort. The air defense plan must support the supported commander's scheme of maneuver. Air defense priorities are established to ensure effective and continuous support for the offensive operation. Air defense systems normally accompany the main body or battalion reserve, but ultimately system positioning is determined by the factors of METT-TC. The Avenger or Linebacker platoon normally provides direct support coverage to the battalion. Priorities for protection may include maneuver elements, fire support, engineer elements, command and control nodes, and logistics assets. Unit SOP and mission-specific IPB developed during the planning process determine priorities for air defense for each mission.

10-38. DEFENSIVE CONSIDERATIONS
The air defense plan must address air defense coverage during all phases of the defense. The number one challenge to the Avenger or Linebacker platoon is to deny the enemy's use of air assets. SHORAD assets focus on the main air avenues of approach. Lateral coordination with adjacent units is required to preclude gaps in the defense. Avengers and Linebackers travel with the counterattack force or operate from overwatch positions to protect the counterattack force from enemy aerial platforms.

10-39. AIR DEFENSE TYPES
The battalion adopts its air defense posture based on the type of supporting ADA assets it has attached. The battalion always uses a combination of active and passive measures to protect itself against air attack.

  a. **Passive Air Defense.** There are two types of passive air defense measures: attack avoidance and damage-limiting measures. Attack avoidance measures are used to avoid being detected by the enemy. Damage-limiting measures are those taken to avoid damage from air attack, such as vehicle dispersion, camouflage, and dug-in fighting positions with overhead protection.

  (1) *Attack Avoidance.* Attack avoidance involves taking the actions necessary to avoid being seen by the enemy to include concealment (the protection from observation or surveillance) and, more specifically, camouflage (the use of natural or artificial material on personnel, objects, or tactical positions with the aim of confusing, misleading, or evading the enemy). The techniques, procedures, and materials used for concealment from aerial observation are the same as those used for concealment from ground observation.

  (a) *Concealment Principles.* There are three concealment principles employed to eliminate the factors of recognition.

  - Siting. Siting means selecting the most advantageous position in which to hide a soldier, an object, or an activity.
  - Discipline. Success in any concealment effort depends on strict maintenance of concealment discipline by both the unit and individual soldiers.

- Construction. Adding natural materials to blend with the surrounding terrain augments this type of concealment.

Examples of concealment include using overhead cover to the maximum extent possible and selecting natural cover.

(b) *Fundamental Methods of Concealing.* There are three fundamental methods of concealing installations and activities.

- Hiding. Hiding is the complete concealment of an object by some form of physical screen.
- Blending. Blending is the arrangement or application of camouflage materials on, over, and around the object so that it appears to be part of the background.
- Disguising. Clever disguises can often mislead the enemy concerning identity, strength, and intention,and may draw his fire from real assets.

(2) *Damage-Limiting Measures*. Damage-limiting measures are an attempt to limit any damages if the enemy detects friendly forces. These measures are used when the troop or its platoons are located in a static position such as an assembly area or when they are maneuvering. If caught in the open, vehicles should immediately execute battle drills and move to positions of cover and concealment that reduce the enemy's ability to acquire or engage them. The same measures taken to limit damage from artillery attack are used for dispersion, protective construction, and cover.

(a) *Dispersion.* Dispersed troops, vehicles, and equipment force the attacker to concentrate on a single small target that will likely be missed. While maneuvering, maintain safe distances between vehicles to reduce the effects of enemy actions.

(b) *Protective Construction.* Protective construction is the use of natural or manmade cover to reduce damage and casualties. Digging in or sandbagging of natural or manmade cover can offer additional protection from attack.

(c) *Cover.* Cover is shelter or protection from enemy observation that reduces the effects of enemy direct or indirect fires. While stationary or maneuvering, select the cover available that will mitigate the effects of attack. Folds in the earth, natural depressions, trees, buildings, and walls all offer damage-limiting cover.

b. **Active Air Defense.** Although passive measures are the first line of defense against air attack, troops must be prepared to engage attacking enemy aircraft. The decision to fight an air threat is based on the immediate situation and weapons system capabilities. Based on the mission, companies do not typically engage aircraft except for self-preservation or as directed by the battalion or company commander.

c. **Right of Self-Defense.** The right of self-defense is never denied. A unit can defend itself from direct attack but should not engage aerial platforms that are not attacking it except on the command of the next higher authority.

d. **Crew-Served and Vehicle Weapons Systems.** Crew-served weapons and vehicle weapons systems provide a large volume and lethal means of engaging threat aircraft. When different munitions are available, use the currently loaded munitions, then reload with the appropriate munitions to engage the aircraft.

e. **Small Arms Used for Air Defense.** Small arms used for air defense incorporate the use of volume fire and proper aiming points according to the target. The key to success in engaging enemy air is to put out a high volume of fire. The commander must decide whether to engage and must provide the engagement command for the entire troop

to fire upon the attacking aircraft rather than having soldiers fire at the aircraft individually.

f. **Football Field Technique.** The football field technique is a simple method of estimating lead distance. This technique is used to lead the target by a common distance (the length of a football field as the base) (Table 10-8). The aircraft then flies into the volume of fire. UAVs should be engaged using helicopter aiming points. Aiming points for both fixed- and rotary-wing aircraft are described below (Figure 10-13).

g. **Heliborne Infantry and Paratroopers.** Infantry rapelling from a hovering helicopter should be engaged by destroying the helicopter using volume fire. Airborne troops are more difficult to engage because of their rapid descent. When engaging paratroopers, use machine guns leading two body lengths below their feet. The Geneva Convention of 1949 and the rules of war prohibit engaging crewmen parachuting from a disabled aircraft.

Basic Rule: Mass all available fire in front of the aircraft		
TARGET	PROFILE	AIMPOINT
Jet/cruise missile	Crossing	Two football fields in front of aerial platform nose
Jet/cruise missile	Overhead	Two football fields in front of aerial platform nose
Jet/cruise missile	Directly at you	Slightly above aerial platform nose
Helicopter	Hovering	Slightly above helicopter body
Helicopter/UAV	Directly at you	Slightly above helicopter/UAV body
Helicopter/UAV	Crossing	One-half football field in front of helicopter/UAV nose

Table 10-8. Football field technique.
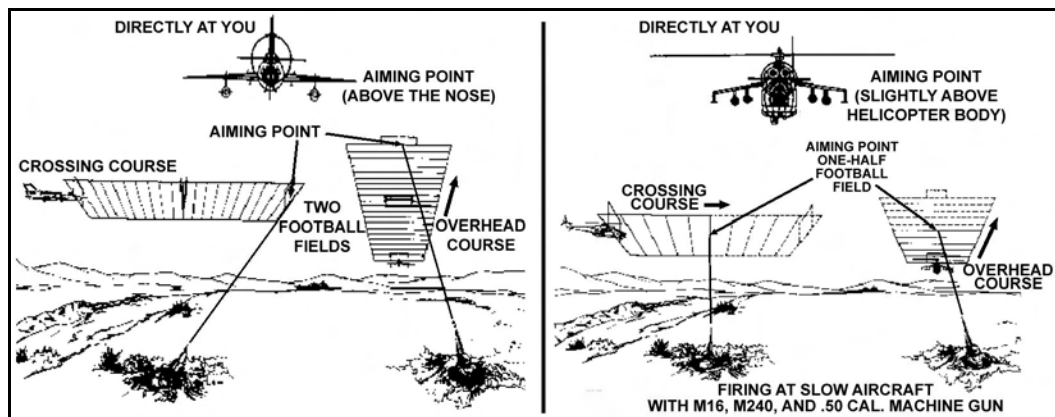
Figure 10-13. Aiming points for fixed- and rotary-wing aircraft.

10-40. AIR DEFENSE WARNINGS AND WEAPONS CONTROL STATUS
Battalion leaders should ensure their subordinates understand the air threat and air threat warning conditions.
    a. Air defense conditions are stated in the OPORD:
- *Red* indicates the attack is imminent.
- *Yellow* indicates that an attack is probable.
- *White* indicates that an attack is not likely.

    b. A local air defense warning (LADW) describes the air threat in the immediate area (Figure 10-14). LADWs are designed to alert a particular unit, several units, or an area of the battlefield of an impending air attack. ADA units use LADWs 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 (ADWs). Examples of LADWs are described below:
- *Dynamite* indicates an attack is imminent or in progress.
- *Look-out* indicates an attack is likely.
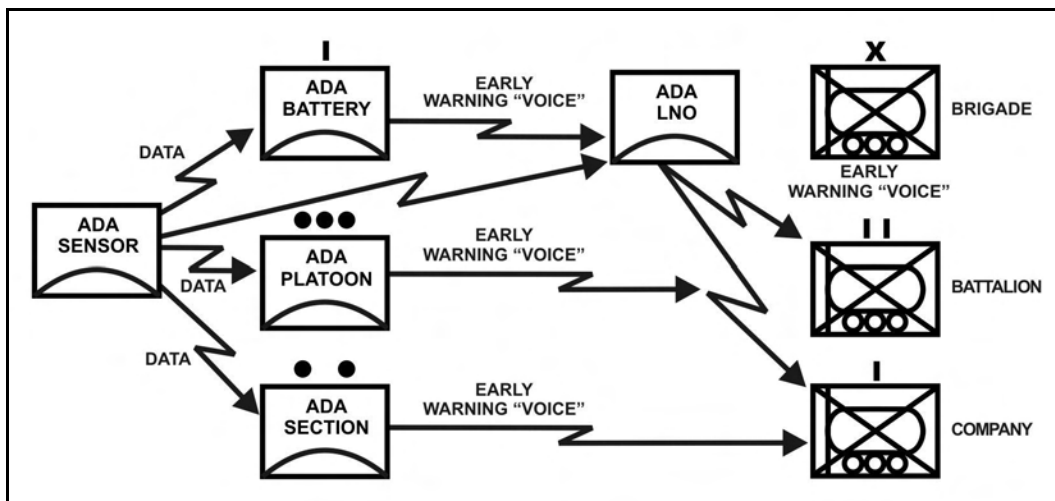- *Snowman* indicates an attack is not likely.

Figure 10-14. Local air defense early warning.

    c. Weapons control status determines the conditions for using weapons against enemy aircraft:
- *Weapons Free*: Enemy air is probable, and soldiers may fire at aircraft not positively identified as friendly.
- *Weapons Tight*: Enemy air is possible, and soldiers may fire only at aircraft positively identified as hostile according to announced hostile criteria.
- *Weapons Hold*: Enemy air is not likely, and soldiers may not fire except in self-defense.

10-41. AIR DEFENSE ASSETS
The ADA assets supporting the battalion as part of an attached ADA platoon are the Avenger, Bradley Linebacker, Stinger missile, man-portable system, and the Bradley Stinger fighting vehicle (BSFV).

a. **Avenger.** The Avenger weapon system is a lightweight, day or night, limited adverse weather firing unit employed to counter low-altitude aerial threats. The FU consists of two turret-mounted standard vehicle-mounted launchers (SVMLs), a machine gun, a forward-looking infrared (FLIR) sight, a laser range finder (LRF), and an identification, friend or foe (IFF). The gyrostabilized turret is mounted on the HMMWV. The FU can launch a missile or fire the machine gun on the move or from a stationary position with the gunner in the turret. It can also be remotely operated from a location up to 50 meters away. Onboard communications equipment provides for radio and intercom operations.

b. **Bradley Linebacker.** The Bradley Linebacker replaces the BSFV's TOW system with four ready-to-fire Stinger missiles housed in the SVML. With its ability to shoot on the move, the Bradley Linebacker eliminates the need for the Stinger team to dismount from the vehicle, providing a significantly increased capability over the BSFV.

c. **Stinger Missile.** The Stinger missile is the battalion's primary air defense weapon system. The Stinger is a short-range, heat-seeking guided missile that can be either shoulder-fired or fired from the SVML on the Bradley Linebacker. It is designed to counter the threat of advance helicopters, UAVs, remotely piloted vehicles (RPVs), high-speed maneuvering aircraft, and cruise missiles. The Stinger has a range in excess of 5 kilometers.

d. **Man-Portable System.** The Stinger can be employed as a man-portable air defense system (MANPADS). The two-man Stinger team, consisting of a gunner and a crew chief, is transported in an HMMWV or BSFV.

e. **Bradley Stinger Fighting Vehicle.** The BSFV provides the air defender with armor protection and gives him the ability to maneuver with the supported force and position the Stinger system forward on the battlefield. The Stinger team must dismount to fire its missiles. The BSFV carries a basic load of six Stinger missiles as its primary air defense weapon. The BSFV's 25-mm chain gun can be used to augment the Stinger and cover dead space to a range of 2,000 meters. The vehicle also carries five TOW missiles.

Section V. SIGNAL

The communications section provides the battalion with communications experts capable of supporting battalion and company.

10-42. BATTALION S6 SECTION

The section's signal officer is the primary planner for battalion communication operations. The S6 advises the battalion commander, staff, and the maneuver companies on all signal and communication matters. The section provides trained communications personnel to each maneuver company, and they coordinate closely with the S3 section to ensure and maintain clear lines of communication during tactical operations. The communications section is responsible for the transfer of information, the networking of automated systems, and the development of communications policies, procedures, and training for the battalion commander. The communications section is equipped with two Strykers for retransmission and two HMMWVs for retransmission and transportation).

10-43. COMMUNICATIONS NETWORKS

Doctrinally, communications are established from higher to lower, left to right, and supporting to supported. Table 10-9 shows the location of each SBCT C2 node information network subscriber by subnetwork.

Battalion Element	TI	CNR	TOC to TOC	GBS
Infantry Battalion	X	X	X	X
Infantry Company	X	X		

Table 10-9. Information network.

a. **Tactical Internet.** The TI integrates EPLRS, FBCB2, and supporting communications equipment into a mobile data network. The TI provides FBCB2 data and C2 data exchange capabilities to SBCT maneuver, CSS, and C2 elements. It also enables users to access the network with the FBCB2 at any location as long as the system is within line of sight of other TI assets. FBCB2 uses the TI to exchange information among users automatically as the tactical situation changes.

b. **Combat Net Radio.** The combat net radio (CNR) provides the SBCT with very-high-frequency (VHF) FM, high frequency, and single-channel tactical satellite (TACSAT) capabilities to execute C2 of forces throughout the SBCT battlespace. The CNR network's primary role is voice communications using the SINCGARS, HF, or single-channel TACSAT for C2. SINCGARS provides low-data-rate transmission for the AFATDS and Prophet.

c. **TOC-to-TOC Data Network.** The TOC-to-TOC data network enables users to exchange C2 information between TOCs and key C2 platforms. The near-term digital radio (NTDR) is a joint tactical radio system (JTRS) surrogate and provides the TOC-to-TOC data network connectivity within the SBCT. The TOC-to-TOC data network uses each NTDR within the network as a relay.

d. **Global Broadcast Service.** The global broadcast service enables the SBCT staff to receive high bandwidth products such as imagery, logistics data, and digital map information. It allows tactical commanders to receive, access, retrieve, and archive this data. Examples of information that may be sent over the global broadcast service include the following:

- Video broadcasts.
- UAV video feed.
- Common ground station sensor data.
- MCS overlays (friendly operational picture).
- ASAS overlays (enemy operational picture).
- Friendly operational picture overlaid with enemy picture from ASAS.
- Other large volume data.

10-44. COMMUNICATIONS EQUIPMENT

The following paragraphs describe the communications equipment that supports the SBCT information network.

a. **JTRS.** The NTDR is a surrogate for the JTRS and will be used until the JTRS is fielded. The NTDR radio supports local area network (LAN) (ethernet) and serial

interfaces inside the TOCs and selected C2 vehicles. The NTDR has a range of 10-20 kilometers (6-12 miles) and incorporates a global positioning system (GPS)-receive capability that provides the military grid reference system (MGRS) position for the radio.

b.   **EPLRS.** EPLRS provides the backbone for the SBCT's TI used for distribution of data and C2 information across the battlespace. The net control station-electronic (NCS-E) is used to establish and control the EPLRS network. EPLRS can also provide interfaces for numerous Army tactical computers, providing these computers access to the EPLRS network. Additionally, EPLRS provides a gateway function to adjacent networks and a relay capability with the EPLRS grid reference unit (EGRU).

c.   **SINCGARS.** SINCGARS is a family of VHF-FM CNRs that provides the primary means of C2 communications for SBCT units. A common receiver-transmitter (RT) is used for manpack and vehicular configurations. SINCGARS radios can transmit and receive voice and data and can record traffic consistent with NATO interoperability requirements.

d.   **HF.** The SBCT uses a commercial-off-the-shelf HF radio system. The AN/PRC-150(C) manpack is automatic-link-establishment (ALE) capable and has embedded COMSEC. The primary component of the HF system is the receiver-transmitter RT-1694D (P)(C)/U. This RT is common to all configurations of the SBCT's HF radios. The vehicular and base station nomenclatures are currently under development.

e.   **Single-Channel TACSAT Terminals.** The AN/PSC-5 Spitfire is a lightweight, ultra high frequency (UHF), demand-assigned multiple access (DAMA) capable satellite terminal that supports single-channel communications at all echelons. The terminal includes embedded COMSEC, narrow-band voice capability, and LOS communications for voice and data. The Spitfire data capability is limited to non-DAMA (satellite) mode. The terminal can support command and control on the move (C2OTM) (when equipped with the appropriate amplifier and antenna) and extends SINCGARS communications when paired with SINCGARS as a retransmission unit.

f.   **GBS Receive Suite.** The GBS receive suite operates in the Department of Defense GBS information distribution system. It receives the products programmed for the users serviced by each receive terminal at SBCT and battalion levels. The GBS can handle secret and unclassified products.

g.   **Commercial Mobile Satellite Service.** Commercial mobile satellite service provides mobile communications across the battlefield and will replace the mobile subscriber radiotelephone (MSRT) used at corps and division echelons. The system is similar to a commercial cellular phone service and provides voice, data, paging, facsimile, and messaging services. The pocketsize, handheld phone has a dual-mode capability that allows it to work as a mobile satellite terminal and a terrestrial wireless system.

h.   **Network Management Systems.** The BSN has organic network management capabilities and provides the SBCT with open system, integrated, planning, and engineering capabilities. These brigade subscriber node (BSN) organic network management capabilities provide management tools for the SBCT wide area network (WAN), the radio frequency (RF) spectrum, and COMSEC. The TI and LAN manager provide TI and LAN management tools for the TOC. The EPLRS network is managed using the NCS-E.

i.   **Defense Message System Extension into a Tactical Environment.** The tactical defense message system (DMS) provides a record traffic messaging system in the SBCT. Tactical DMS software components are installed on pre-existing platforms within each TOC at SBCT and battalion levels. The SBCT and battalion S6 sections are responsible for the message transfer agent (MTA) located on each TOC server supported by tactical DMS. Tactical DMS is supported by the tactical messaging system (TMS) at the ARFOR which provides backbone connectivity and management services to the SBCT.

j.   **Tactical Range Extension.** The tactical communications section employs a retransmission/relay capability for range extension of the TI, CNR, and TOC-to-TOC data networks. Retransmission capabilities in the SBCT's subordinate units remain under the control of the respective unit commander. This authority provides the commander with the flexibility to employ tactical range extension as the situation dictates.

k.   **Communications Relay Package (CRP).** The airborne CRP is the preferred option to provide range extension. The CRP reduces the need to deploy isolated ground retransmission teams and overcomes ground LOS restrictions. The BSC and other SBCT units maintain retransmission assets in support of range extension in the absence of airborne CRP assets, but operations in a noncontiguous battlespace demand coverage beyond the capabilities of the SBCT terrestrial retransmission systems. The aerial CRP, in addition to terrestrial retransmission systems, significantly enhances information network coverage throughout the SBCT battlespace. The TI, CNR, and TOC-to-TOC data networks must be able to use some aerial CRP assets to ensure full coverage of the SBCT battlespace. Network infrastructure and ISR missions should be prioritized IAW the commander's intent.

10-45. PLANNING CONSIDERATIONS

Because of the information- and intelligence-dependent nature of the battalion, commanders must identify known good areas of communication coverage by conducting network assessment early in the planning process. This assessment is required for each subnetwork that is used during a given operation. The commander plans communications networks to cover the greatest area of the battalion battlespace. The commander should identify critical communication requirements in order to reposition network infrastructure or request augmentation from higher. The CP locations should be templated IAW coverage available for the communication networks or else the commander must accept the risk of degraded or negated network support. During movement, points of known good communications are identified as communication coordination points. These points are used for intelligence synchronization between echelons.

a.   The S6 must conduct an electronic preparation of the battlefield (EPB) early enough for the commander to make informed decisions on assigning missions to ISR assets and subsequently to maneuver forces. Critical to the EPB is a risk analysis based on the recommended network architecture. The EPB should include analysis of the following:

(1) *Terrain.* Identify the general effect of the terrain upon communications and key terrain that the commander must control to facilitate IO.

(2) *Electromagnetic Environmental Effects (E3).* Identify electromagnetic pulse threat, electromagnetic interference sources and effects, electronic warfare threat impact, and environmental conditions that will degrade or enhance communications.

(3) *Enemy.* Identify enemy C2 information systems capabilities and likely courses of action that will influence enemy operations.

(4) *Network Architecture.* Recommend initial network architecture.

(5) *Bandwidth Assessment.* Recommend which standardized information packages can be moved by which network during each phase of the operation.

(6) *Single Points of Failure.* Identify the communications points on the battlefield that will cause the network to fail.

b. The commander must incorporate the EPB into his decision-making process early enough to understand the limitations in communications when planning maneuver for his unit. The commander must also indicate what he thinks are his critical information requirements in order for the S6 to ensure infrastructure support for that requirement.

c. The initial EPB must be refined as the commander decides what risks he will take in the C2 INFOSYS arena. The S6 plans to cover as much of the battlefield as possible with the available networks. Refinement of coverage is determined by the commander's estimate of critical information requirements. Adapting the command, control, communications, and computers (C4) plan to the priorities set by the commander requires close coordination between the S6 and the other staff members, particularly with the information officer. The information officer determines the priority of information being passed, and the S6 provides the transport path for that information. The S6 must ensure that the information officer is aware of system limits and capabilities at all times, and the information officer must ensure the S6 is aware of the information officer's priorities at all times. Critical to successful C4 planning are the following tasks:

- Develop primary, alternate, contingency, and emergency (PACE) planning for all networks.
- Identify C4 requirements by phase.
- Ensure the C4 requirements are synchronized and integrated with the scheme of maneuver. Embed C4 information on the synchronization matrix.
- In conjunction with the information officer, determine priority of use for networks by phase.
- Develop the signal annex.
- Plan and conduct communications exercises.
- Integrate C4 by BOS in all rehearsals.

d. The signal annex must provide a clear understanding of the unit's communications architecture and how it will operate on the battlefield. A number of styles of information presentation are effective: text, preformatted templates, and matrices. The annex must incorporate all communications resources. Providing a signal concept sketch to the commander works best because it provides the commander with a clear and concise understanding of the communications plan. Critical elements include concept of communications, CP locations, and tactical range extension (T-REX) locations. The S6 must capture information for the complete task organization in order to portray an accurate picture.

Section VI. INTELLIGENCE

In the SBCT infantry battalion, the primary means to obtain information is through subordinate maneuver companies, patrols, reconnaissance troops, OPs, and FISTs. The battalion S2 is the primary staff officer responsible for coordination of information

collection and dissemination by planning use of battalion reconnaissance and surveillance assets. Individually, the SBCT S2 performs all steps of the collection management process. The end result is an ISR plan integrated into the SBCT's ISR plan. Although SBCT ISR assets are limited, the S2 requests electronic and HUMINT intelligence support through the SBCT's direct support intelligence system. If requested and placed in an SBCT's AO, these assets operate DS or GS to the SBCT. If ISR assets are GS, they are integrated into the SBCT ISR plan and report through the operations and intelligence net.

10-46. ORGANIZATION AND EQUIPMENT

The MI company is the SBCT's primary source of intelligence products and manager of ISR operations. The company consists of an analysis platoon, ISR integration platoon, and human intelligence platoon. The analysis platoon provides analytic support to the development of the SBCT COP, targeting and effects, and refinement of the IPB. The integration platoon serves as an extension of the SBCT S2 staff for the internal and external management of ISR assets. The human intelligence platoon conducts the SBCT's tactical HUMINT collection operations by providing technical guidance and control to the tactical HUMINT teams operating DS to the SBCT's maneuver battalions and reconnaissance squadron. The company has the organic systems necessary to interface with ISR systems resident at the ARFOR, joint, theater, and national levels.

10-47. SURVEILLANCE TROOP

The surveillance troop conducts imagery intelligence (IMINT), measurement and signature intelligence (MASINT), SIGINT, and NBC surveillance operations to support the SBCT's planning, preparation, and execution of multiple simultaneous decisive actions across distributed AOs. The troop contains all the SBCT's organic electronic ISR assets. Successful planning, preparation, and execution of these operations requires the troop's leadership and soldiers to have a clear understanding of the SBCT commander's ISR requirements as well as the squadron commander's intent and concept of operations.

10-48. AIR RECONNAISSANCE PLATOON

The air reconnaissance platoon operates four UAVs to provide the SBCT with 12 hours of continuous coverage in a 24-hour period and a surge capability of 24 out of 24-hours' coverage for a period of 3 days. The platoon consists of a headquarters element, two ground control teams, a launch and recovery section, and a maintenance team.

10-49. MULTISENSOR PLATOON

The multisensor platoon consists of a headquarters element and four multisensor sections. Each section consists of one SIGINT team and one MASINT team. The platoon depends on the ISR integration section located at the squadron CP for SIGINT mission management, technical support, and direction-finding analysis. Each multisensor section consists of one SIGINT team and one MASINT team. Both teams always move as a two-vehicle multisensor section within the AOs. Movement by section allows the platoon to use bounding overwatch techniques to maintain MASINT coverage and to move the direction-finding baseline while maintaining continuous SIGINT support.

a. **Signal Intelligence Team.** Each SIGINT team is equipped with the AN/PRD-13(V)2 improved SIGINT manpack system (ISMS). The AN/PRD-13(V)2 operator can search, intercept, and locate signals from high-frequency to super-high-frequency bands.

b. **Measurement and Signature Intelligence Team.** Each MASINT team is equipped with the AN/PPS-5D GSR and the remotely monitored battlefield surveillance system (REMBASS). The MASINT team emplaces its GSR and REMBASS in areas of expected enemy activity as directed in the squadron S2's ISR plan. The team's REMBASS monitoring site is located within the team vehicle at the multisensor section position. The MASINT team uses its systems to--

- Provide indications and warning of enemy movement, reinforcement, or withdrawal.
- Provide near-real-time combat information and targeting data.
- Confirm or deny movement along major supply routes, along avenues of approach, or through specific named areas of interest.
- Support flank and rear security.
- Vector friendly forces to objectives during periods of limited visibility by monitoring their movement.
- Provide tip-off and cross cueing of other sensors to support the SBCT's targeting effort.

(1) *Ground Surveillance Radar.* The MASINT team's AN/PPS-5D detects, locates, identifies, and tracks moving ground targets in an area under surveillance. The GSR detects moving ground targets only and cannot distinguish between enemy and friendly targets.

(2) *Remote Battlefield Surveillance System.* The team's REMBASS can detect and classify moving targets by responding to seismic acoustic disturbances, changes to infrared energy, and magnetic field changes produced by the targets. The MASINT team hand-emplaces a string of three or more REMBASS sensors along likely avenues of approach, choke points, and obstacles. (The number of sensor strings depends on the area being covered.) The first sensor is normally a seismic acoustic sensor for early warning and classification. The second sensor is normally a count indicator of the expected type of target--a magnetic sensor for vehicles and an infrared-passive sensor for personnel. The count indicator sensor provides the number of targets and direction of travel. The third sensor is also a count indicator and provides rate of speed and length of column. Once the sensors are activated, they send a burst of digital message to the monitoring station. The system requires radio LOS to transmit activations from the sensors to the monitor station. With the collected information, the operator prepares and submits a sensor activation spot report to the ISR integration section at the squadron or to the supported unit.

CHAPTER 11
COMBAT SERVICE SUPPORT OPERATIONS

The core of combat service support to the SBCT is the brigade support battalion. The BSB provides direct support to the SBCT. The BSB has an austere force structure with the minimum capabilities necessary to support the SBCT. This CSS support package is strategically mobile and focused only on sustainment necessities and thus does not provide the same level of support as that provided by other support battalions. Initial sustainment relies on a combination of unit basic loads, strategic configured loads (SCLs), and the availability of fuel and water in the area of operations. By deploying with CSS packages tailored for a specific operation, the SBCT can sustain itself with external support for up to 72 hours.

The CSS functions within the SBCT are almost entirely consolidated under the command and control of the BSB headquarters. The BSB consists of three companies--the headquarters and distribution company (HDC), the forward maintenance company (FMC), and the brigade support medical company. The BSB commander is the SBCT commander's single logistics operator. His support operations officer (SPO) manages sustainment operations with multiple digital information and automation systems.

Section I. CSS PLANNING CONSIDERATIONS

The SBCT battalion commander, thru his executive officer, S1, and S4, makes plans and key decisions concerning CSS. The combat trains command post is the focal point of these activities. Since the SBCT infantry battalion does not have the organic maintenance and support platoons found in other infantry battalions, the battalion S4's planning responsibilities are more complex and require coordination with the SBCT S4 and the BSB SPO. Unit SOPs should address planning, implementation, and responsibilities in detail and should standardize as many routine CSS operations as possible.

11-1. GENERAL GUIDELINES

In SBCT infantry battalions, health service support assets are assigned to the HHC. The BSB provides each SBCT infantry battalion with a combat repair team to provide maintenance and repair parts support to all units operating in the battalion's area. The BSB retains control over supply and transportation assets to provide area support for other key logistics functions such as rations; petroleum, oils, and lubricants (POL); and munitions. The respective staff sections support other CSS functions such as personnel, legal, and religious (for example, S1 and unit ministry team).

a. Within this support structure, the SBCT infantry battalion must plan, prepare, and execute its portion of the SBCT CSS plan. Concurrent with other operational planning, the battalion develops its CSS plan during mission analysis and refines it in the war gaming portion of the troop-leading process. CSS rehearsals are normally conducted at both SBCT and battalion levels to ensure a smooth, continuous flow of materiel and services.

b. The battalion's basic CSS responsibilities are to execute health service support with its medical platoon, to report and request all other support requirements through the correct SBCT channels, and to ensure that CSS operations are properly executed when support

elements arrive in the battalion area. The CTCP is normally in charge of these functions with guidance and oversight provided by the battalion commander.

11-2. BATTALION RESPONSIBILITIES

The SBCT infantry battalion headquarters is responsible for the coordination and execution of CSS functions within the battalion. This includes conducting effective CSS operations for all units within the battalion's area of responsibility. The primary CSS functions required by the SBCT infantry battalion include casualty treatment and evacuation, resupply operations, maintenance activities, and personnel service support. The following battalion personnel have the primary responsibility for CSS.

   a. **Commander.** The commander ensures that CSS operations sustain his battalion's fighting potential. He integrates CSS activities into the tactical plan and provides guidance to the CSS operators. He tailors his CSS operations to meet the tactical plan.

   b. **Executive Officer.** The XO coordinates and supervises the battalion's logistical effort. During the planning phase, he reviews status reports from the companies, medical platoon, and CRT; reviews the tactical plan with the S3 to determine battalion CSS requirements; and supervises coordination with the SBCT S1, S4, and BSB SPO. The XO also ensures the CSS needs of other units in the battalion's area of responsibility are met.

   c. **Adjutant.** The battalion personnel and administration section is responsible for maintaining unit strength and conducting personnel actions. The S1 ensures assigned personnel transition smoothly into and out of the battalion. He processes status and strength reports, personnel awards and orders, and finance and legal actions. The S1 coordinates the special staff efforts of the chaplain and medical platoon leader and any attached public affairs personnel and supervises the casualty system. The S1 is also the staff point of contact for activities such as inspector general and judge advocate general issues. During tactical operations, the S1 supports the S4 section in operation of the CTCP.

   d. **Logistics Officer.** The battalion logistics section is responsible for providing logistical planning and support to the battalion and operates the battalion's CTCP. The S4 is the battalion's primary logistician. He coordinates the CSS functions of maintenance, supply, transportation, and services for the battalion and units operating in the battalion's area of responsibility. The S4 provides staff supervision of the battalion's direct support combat repair team. The S4 normally positions his assistant at the main CP to assist the S3's synchronization of combat and sustainment operations. The S4 section mans the CTCP in conjunction with elements of the S1 section.

   e. **Medical Platoon Leader.** The medical platoon provides health service support to the battalion. Its personnel provide immediate trauma and combat medical treatment and medical evacuation support to the headquarters and maneuver companies. The medical platoon leader also serves as a special staff member to the battalion commander, ensuring that battalion personnel maintain both physical and mental health. The medical platoon habitually establishes the battalion aid station under the direction of the battalion CTCP. Battalion medics also provide training to combat lifesaver personnel.

   f. **Chaplain.** The unit ministry team is composed of a chaplain and one enlisted chaplain's assistant. The chaplain is also a special staff member who serves as a confidential advisor to the commander on the spiritual fitness and ethical and moral health of the command.

g. **HHC Commander.** The HHC company headquarters section provides supply and personnel support to the battalion's headquarters. In a tactical environment, the HHC HQ section provides direct interface with the administrative and logistics support elements of the SBCT and BSB in the brigade support area. The HHC commander becomes the battalion commander's representative in the BSA and oversees the company supply sections when they are in the BSA.

11-3. PREDEPLOYMENT ACTIVITIES

The infantry battalion is responsible for predeployment activities that allow the SBCT to deploy within 96 hours. These are essentially constant and ongoing activities performed at home station prior to and after warning or alert notification. Predeployment activities include training validation, deployment planning, task organization, equipment maintenance, and soldier readiness processing (SRP). Transportation requirements for the battalion should be established prior to any alert or warning order. The battalion should have an appropriate number of personnel trained to perform special deployment duties. These duties include pallet construction teams, unit loading teams, hazardous cargo certifying officials, and air load planners.

Section II. TRAINS

The logistical focal points for SBCT infantry battalions are generally described as the "trains." CSS personnel and equipment organic or attached to a force that provides support, such as supply, evacuation, and maintenance services, comprise the unit trains.

11-4. SBCT INFANTRY BATTALION TRAINS

SBCT infantry battalion trains normally consist of two types: combat trains and field trains.

a. **Combat Trains.** The battalion combat trains normally are positioned close enough to combat elements to be responsive to forward units but beyond the range of enemy direct fires. The SBCT battalion combat trains usually consist of the HHC's medical platoon and the supporting CRT. They are supervised by the combat trains command post. The trains are positioned based upon the factors of METT-TC.

b. **Field Trains.** The battalion field trains normally are positioned in the BSA. Since it has no supply platoon, the SBCT infantry battalion has no dedicated field trains. The infantry companies normally locate their supply sections with the HHC headquarters section to form the battalion field trains. At times an infantry company may store its sustainment or contingency loads with its company supply section in the BSA. These may include rucksacks, duffel bags of extra clothing and personal items, armored vests, chemical protective overgarments (CPOG), and sleeping bags. The austere structure of the SBCT limits its ability to store and maintain these stocks. The battalion S4 coordinates with company commanders to ensure that these stocks are available. The battalion field trains operate as the primary direct coordination element between the infantry companies and the BSB. The HHC HQ section provides direct interface with the elements of the infantry battalion, BSB, and SBCT rear CP.

11-5. SBCT INFANTRY COMPANY TRAINS

Company trains are the focal point for company sustainment operations. They are the most

forward CSS elements and provide essential medical treatment and maintenance support. The size and composition of the company trains vary depending upon the tactical situation. Company trains are established to conduct evacuation (of wounded in action, weapons, and equipment) and resupply as required. Company trains are located in a covered and concealed position close enough to the company to provide responsive support but out of enemy direct fire.

11-6. POSITIONING TRAINS

Company trains normally operate one terrain feature to the rear of the company, beyond the range of direct-fire weapons. Battalion combat trains are normally positioned beyond the range of the threat's light indirect-fire weapons, such as mortar systems. The SBCT tries to position the BSA beyond the range of heavy indirect-fire weapons, such as rocket and artillery systems. Combat trains should not be considered a permanent or stationary support area. The 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.
- When area becomes worn by heavy use (for example, wet and muddy conditions).
- When security is compromised.

11-7. TRAINS SECURITY

Security of CSS elements is critical to the success of the SBCT battalion mission; therefore, trains must develop plans for continuous security operations. The best defense for combat trains is to avoid detection.

    a. Select good trains sites that use available cover, concealment, and camouflage.

    b. Utilize strict movement and positioning discipline as well as noise and light discipline to prevent detection.

    c. Establish a perimeter defense as in an assembly area:

- Establish observation posts and patrols.
- Position weapons (small arms and machine guns) for self-defense.
- Plan mutually supporting positions to dominate likely avenues of approach.
- Prepare a fire plan and make sector sketches.
- Identify sectors of fires.
- Emplace TRPs to control fires and for use of indirect fires.
- Integrate available combat vehicles within the trains into the plan (for example, vehicles awaiting maintenance or personnel) and adjust the plan when vehicles depart.
- Conduct rehearsals.

    d. Establish rest plans.

    e. Identify an alarm or warning system that allows for rapid execution of the defense plan without further guidance (normally included in an SOP).

    f. Designate a reaction force and ensure the force is equipped to perform its mission.

11-8. COMMUNICATIONS

Fast, reliable communications are critical to the CSS effort. Whether as directed by the SBCT headquarters or as needed to support a company mission, the CTCP reports the battalion's status, including combat losses, and sends resupply and support requests forward.

a. **Force XXI Battle Command Brigade and Below.** FBCB2 is a network of computers, global positioning equipment, and communication systems that provide on-the-move, real-time command and control information to tactical combat arms, CS, and CSS soldiers and leaders. The system provides preformatted, standardized reports allowing the leaders to rapidly disseminate required reports and FRAGOs. Each vehicle in the battalion has an FBCB2 system that can transmit its logistical and personnel status reports to the chain of command and the battalion S4. FBCB2 is the fastest method of disseminating this information. Leaders should verify receipt of all reports sent via FBCB2 either by follow-up message or via FM voice.

b. **FM Voice.** FM communication is still a critical mode of passing required reports. However, it may not be the fastest means and may be the least secure means of communications and poses other problems for the battalion's CSS operators. The battalion administrative and logistics (A/L) net is used for most CSS traffic, but infantry companies may not have enough authorized radio systems to monitor it. When this is the case, the CTCP must enter the company net to contact the company. Unit SOPs must specify procedures to be followed in this type of situation to ensure that the CTCP receives all transmissions on a timely basis.

c. **Messenger or Wire.** As an alternative, units can send CSS reports and requests by messenger or wire. Messengers are slower than radio transmission but more secure. Wire communications are also very secure but are strictly limited in range and coverage and may not be a feasible option in a fast paced operation or noncontiguous environment. For sending lengthy or complex reports and requests, messenger or wire is better than radio transmission.

11-9. COMMAND AND CONTROL SYSTEMS.

Computers have automated many CSS functions within the SBCT infantry battalion. They enable the CTCP to report near real-time status of the battalion or a single company.

a. **Force XXI Battle Command Brigade and Below.** FBCB2 has CSS management programs built into its software capabilities. Preformatted CSS reports from individuals and units automatically update many of the CTCP's recurring CSS rollup reports. Using these automated logistics and personnel reports, the CTCP can obtain near real-time status of individual FBCB2 platforms and unit rollups (Figure 11-1, page 11-6.) The task management status feature allows the CTCP to manage CSS requests from the calls for support (CFS), from the users to the logistics task orders (LTO), and from support units (Figures 11-2, page 11-6 and Figure 11-3, page 11-7).

Preformatted CSS Reports in FBCB2

- Logistics Report
- Personnel Status Report
- BRIL / CTIL Update
- Call For Support (CFS)

- Supply Point Status Report
- Medical Evacuation Request
- Medical Unit Report
- Mortuary Affairs Report

Figure 11-1. Preformatted CSS reports in FBCB2.

Logistics Call for Support

Supply Maintenance	Maintenance	Medical
Class I Supply	Repair	CL VIII
Class II Supply	Recovery	Medical Non-emergency
Class III (P) Supply	Other	Medic
Class III (B) Supply	**Transportation**	Other
Class IV Supply	Pickup	**Religious Support**
Class V Supply	Deliver	Worship Services
Class VI Supply	Other	Pastoral Care
Class VII Supply	**Mortuary Affairs**	EPW / Refuge Support
Class IX Supply	Evacuation of Remains	Funeral Services
Class X Supply	Process Remains	Memorial Services
Supply Water	Search & Recover of Remains	Other
Food Services	Other	**Military Police**
Laundry Services	**Finance**	EPW / Detainee Evacuation
Bath Services	Pay Inquiry	Convoy Escort
Other	Check Cashing	Area Security
Ordnance	Combat Payment	Traffic Control
Other (EOD)	Foreign Currency Conversion	Other

Figure 11-2. Logistics call for support in FBCB2.

Figure 11-3. Task management screen in FBCB2.

b. **Combat Service Support Control System.** CSSCS is a CSS command and control system used primarily by CSS planners at the BSB, SBCT, and higher echelons. CSSCS provides battlefield decision support and information for planning and controlling the logistics support of combat operations. CSSCS provides material and personnel status of units and identifies logistical capability to resupply units for subsequent combat operations. CSSCS receives input and provides visibility of data from--

- FBCB2.
- Standard property book system-redesign SPBS-R (property).
- Standard Army maintenance system (SAMS) (maintenance).
- Standard Army retail supply system (SARSS) (supply).
- Transportation coordinator's automated information for movement system (TCAIMS) (transportation),
- Medical communication for combat casualty care (MC4) (medical).
- Standard installation/division personnel system (SIDPERS) (personnel).

CSSCS has the following capabilities:Resource status summaries display current logistics information by class of supply, item, or unit as color-coded charts or detailed tabular reports.

- Course of action analysis (as deliberate or "quick" analysis) uses either current or planned task organization based upon approved planning factors.
- Unit task organization tracks task organization to company level and provides a structure for resource tracking.Commander's tracked items list (CTIL), a subset of baseline resource items list (BRIL), includes those items of command interest and command controlled items that are tracked by CSSCS.
- Color-coded "gumballs" indicate authorized and or operational status by class of supply and unit.
- Common operational picture with higher quality digital maps.

c. **Tactical Personnel System and Standard Installation Division Personnel Information System.** The S1 section has the capability to run the tactical personnel system (TPS) and SIDPERS-3 from the CTCP.

d. **Maneuver Control System.** The S4 section has an MCS to enable the CTCP to fulfill its role as the alternate battalion TOC.

Section III. CSS IN THE SBCT

To meet the challenge of supporting the operational of high operations tempo (OPTEMPO) warfighting and time-to-deploy objectives, the SBCT employs an austere CSS package with minimum capabilities. This CSS force package is streamlined, strategically mobile, and focused on sustainment necessities. This tailoring is achieved by optimizing the use of CSS resources (through CSS situational understanding) and minimizing the operational and CSS footprint in the area of operations. Split-basing (the concept of locating assets in the rear and forward with all but the immediate essentials held in the rear) and modularity (the concept of creating standardized units which may be located rear or forward) provide just-in-time tailored support to the SBCT. Supplies are pushed forward from the rear as needed whenever and wherever feasible. Also, highly deployable CSS assets are positioned to rapidly enter and depart the area of operations as needed to sustain the force. These concepts are part of CSS reach as discussed below and in FM 100-10. The key logistics and HSS provider within the SBCT is the BSB; however, there are other elements in the SBCT that plan and execute CSS operations. This section covers the CSS functions performed by the BSB and those SBCT elements other than the BSB.

11-10. BRIGADE SUPPORT BATTALION

The SBCT brigade support battalion is organized to perform distribution-based, centralized CSS functions in accordance with Army Force XXI CSS concepts. Logistics and many medical functions have been removed from combat and combat support units and consolidated in the BSB. The brigade support battalion (Figure 11-4) consists of the headquarters and three companies: the headquarters and distribution company, the forward maintenance company, and the brigade support medical company. The austere design of the CSS structure is insufficient to sustain the SBCT in garrison and during extended operations. The BSB has a limited distribution forward capability. It combines situational understanding with efficient delivery systems to form a distribution pipeline, eliminating most stockpiles. Supplies are tailored and packaged for specific supported units based on a specific time and location. Total asset visibility, including in-transit visibility, gives CSS personnel visibility over all assets and infrastructure capacity in the area of operations. The combat service support company (CSSC) is the minimum solution to overcome the shortfalls of the BSB during sustained operations.
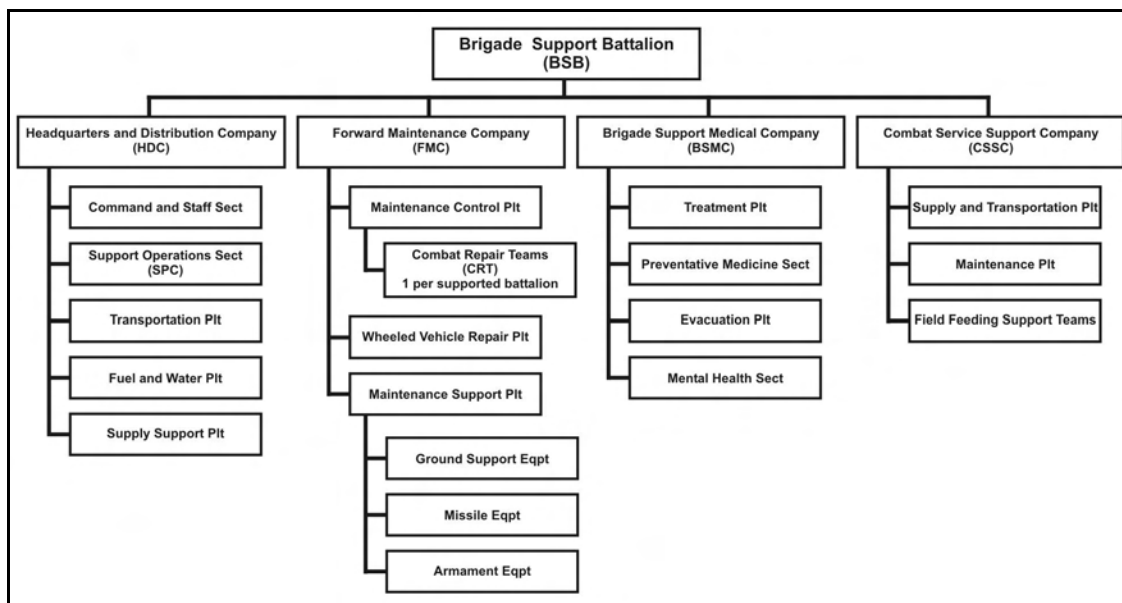
Figure 11-4. Brigade support battalion.

11-11. S1 SECTION

Battalion and SBCT personnel sections perform their traditional roles of personnel management, personnel services, and personnel support.

a. **Personnel Management.** Both SBCT and battalion S1 sections ensure their commander's priorities for manning units are executed.

(1) The battalion S1 focuses on accurate personnel accounting and strength reporting.

(2) The SBCT S1 focuses on replacement management, including the status of casualties in medical treatment facilities (MTF). Individual replacements will arrive at the SBCT with individual weapons and personal equipment (for example, TA-50).

(3) Personal information management, a deliberate system of validating and storing critical information on soldiers and contractors, is supported by the ability to access information at the intermediate staging base or home station.

b. **Personnel Services.** Generally, home station assets will perform personnel services.

(1) Primarily the SBCT S1 manages casualty operations. Battalion S1s ensure that witness statements and or casualty feeder reports are accurate and complete. The SBCT S1 is responsible for verifying unit submissions of witness statements and or casualty feeder reports against the personnel database and emergency data in the soldier's deployment packet. After verifying information with the appropriate medical treatment facility, the SBCT forwards the casualty information through the Army casualty information processing system.

(2) Battalion S1 sections have limited ability to conduct personnel services (awards, promotions, evaluations, and reassignments) while deployed. S1s will handle pay-input transactions for military pay.

c. **Personnel Support.** Personnel support is METT-TC dependant and normally requires a mature theater of operations.

(1) Postal operations within the SBCT will be limited to mail and distribution activities. The brigade S1 section will receive pre-sorted letter mail and small packages.

Battalion mail clerks within the S1 sections will pick up incoming mail from, and drop off outgoing to, the brigade mail clerk.

(2) Battalions will coordinate with the brigade S1 for provision of morale, welfare, and recreation (MWR) activities and services as the mission permits. The MWR system is a necessary outlet for soldiers to relieve combat stress, which is critical to sustaining the readiness of the force.

11-12. BRIGADE OPERATIONAL LAW TEAM

The brigade operational law team (BOLT) provides legal support in operational law (OPLAW) and either provides or coordinates legal support for the six legal disciplines: military justice, international law, administrative law, civil law (contract law, fiscal law, and environmental law), claims, and legal assistance. (See Chapter 2, FM 4-93.7.)

- The brigade judge advocate and a legal specialist provide OPLAW support from the SBCT main CP in order to support the commander and his fires and effects coordination cell.
- The bulk of the BOLT provides legal support from the SBCT rear CP.
- Battalion legal specialists may be consolidated with the BOLT or provide services from within the battalions. If positioned with the battalions, they are normally under the supervision of the S1 at the CTCP.

11-13. UNIT MINISTRY TEAM

The UMT is composed of a chaplain (MOS 56A) and an enlisted chaplain assistant (MOS 56M). Each UMT develops a religious support plan that details how it can best coordinate and facilitate religious support throughout the AO.

a. Religious support is usually expressed in terms of coverage. Traditionally, coverage deals with the type of support a UMT provides to elements of the unit. Coverage consists of three religious support functions: unit support, area support, and denominational support.

(1) Unit support is provided by the UMT organic to the battalion and to all units attached.

(2) Area support is provided to those who are not a part of the UMT's unit, but who are operating within the same AO without organic or available religious support.

(3) Denominational support may be limited to available assets. UMTs usually provide denominational support on an area basis.

b. Battalion UMTs normally operate from the CTCP or battalion aid station.

(1) When not conducting combat operations, the UMT coordinates with the CTCP to be at the right place at the right time for those who need them the most. Movement with a logistics package to a logistic release point is an excellent way to minister and provide services to a company.

(2) During combat operations, the UMT's priority for religious support is care for the wounded. The team performs "religious triage" in coordination with medical treatment personnel. The UMT moves to positions where the largest numbers of casualties are to be collected, usually at battalion aid stations.

(3) After combat, the UMT ministers to soldiers, paying attention to leaders and those who show signs of battle stress.

c. The SBCT UMT reviews and may adjust battalion religious support plans to ensure that religious coverage is available to all, to include contractors, refugees, displaced persons, detained civilians in the area of operation, and enemy prisoners of war.

d. The BSB UMT usually operates from the BSA and provides support to the FSMC and field trains. The battalion UMT should coordinate for support of unit soldiers in the BSA.

e. Chaplains often serve as the "conscience of the command." They advise the commander on the moral and ethical nature of command policies, programs, and actions and their impact on soldiers. The religious support model in Figure 11-5 depicts the supporting functions and tasks. The UMT is responsible for and supports the free exercise of religion. Chaplains provide support for death notifications, Red Cross notifications by command, and liaison with continental US (CONUS) and host nation clergy.
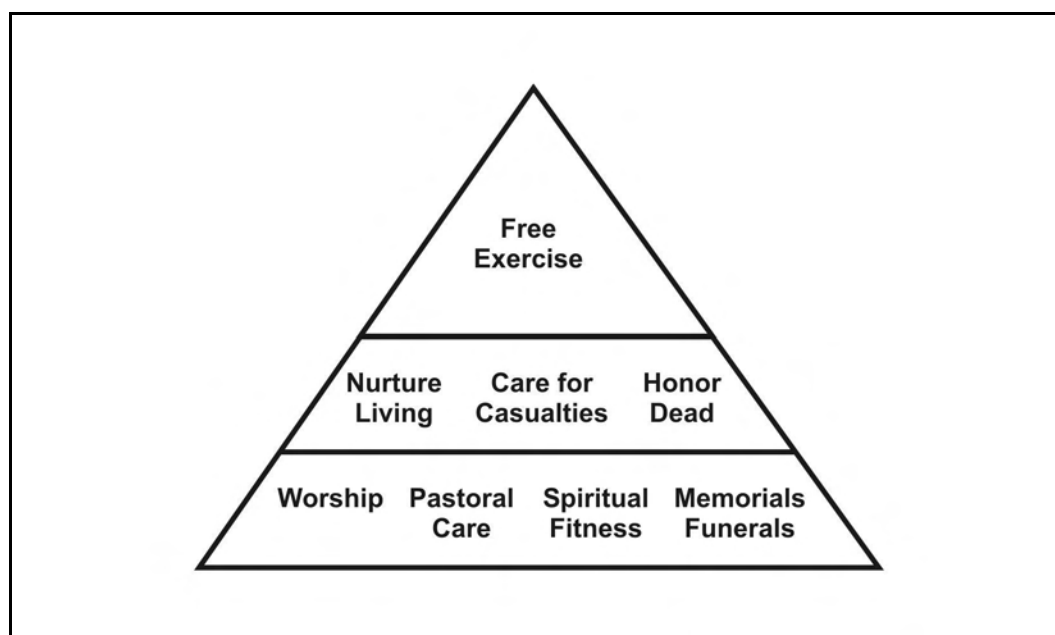
Figure 11-5. The religious support model.

11-14. FINANCIAL MANAGEMENT
Financial management support includes: banking and currency support, procurement support, disbursing support, cost-capturing and accounting, non-US pay to include EPW and counterintelligence (CI) and US pay and travel. The SBCT has no organic financial management support assets. Finance units must deploy to provide financial management for SBCTs in the same manner they support the rest of the Army.

11-15. ENEMY PRISONERS OF WAR
The SBCT has no organic military police support assets to take control and evacuate EPWs. See Figure 11-6, page 11-12, for an illustration of EPW handling.

a. Soldiers capturing documents and EPWs report immediately and coordinate a link up with the 1SG to turn the documents and prisoners over to him. The 1SG, often assisted by his supply section, moves them to the vicinity of the combat trains or UMCP for

processing and subsequent interrogation by battalion or MI company personnel. Crews of vehicles undergoing repair or unoccupied mechanics are used as guards.

b. The CTCP plans and coordinates EPW operations, collecting points, and evacuation procedures. EPWs are evacuated from the battalion area as rapidly as possible. Prisoners are then moved to the EPW collecting point in the BSA on returning LOGPAC vehicles or by transportation coordinated by the S4. As necessary, the S2 reviews and reports any documents or information of immediate value. The S4 coordinates evacuation of large amounts of enemy equipment.

c. The SBCT must assign responsibility for EPWs. Since there is no organic MP support, a unit within the SBCT may be detailed to operate an EPW collection point until a higher headquarters (ARFOR) assumes responsibility for them.
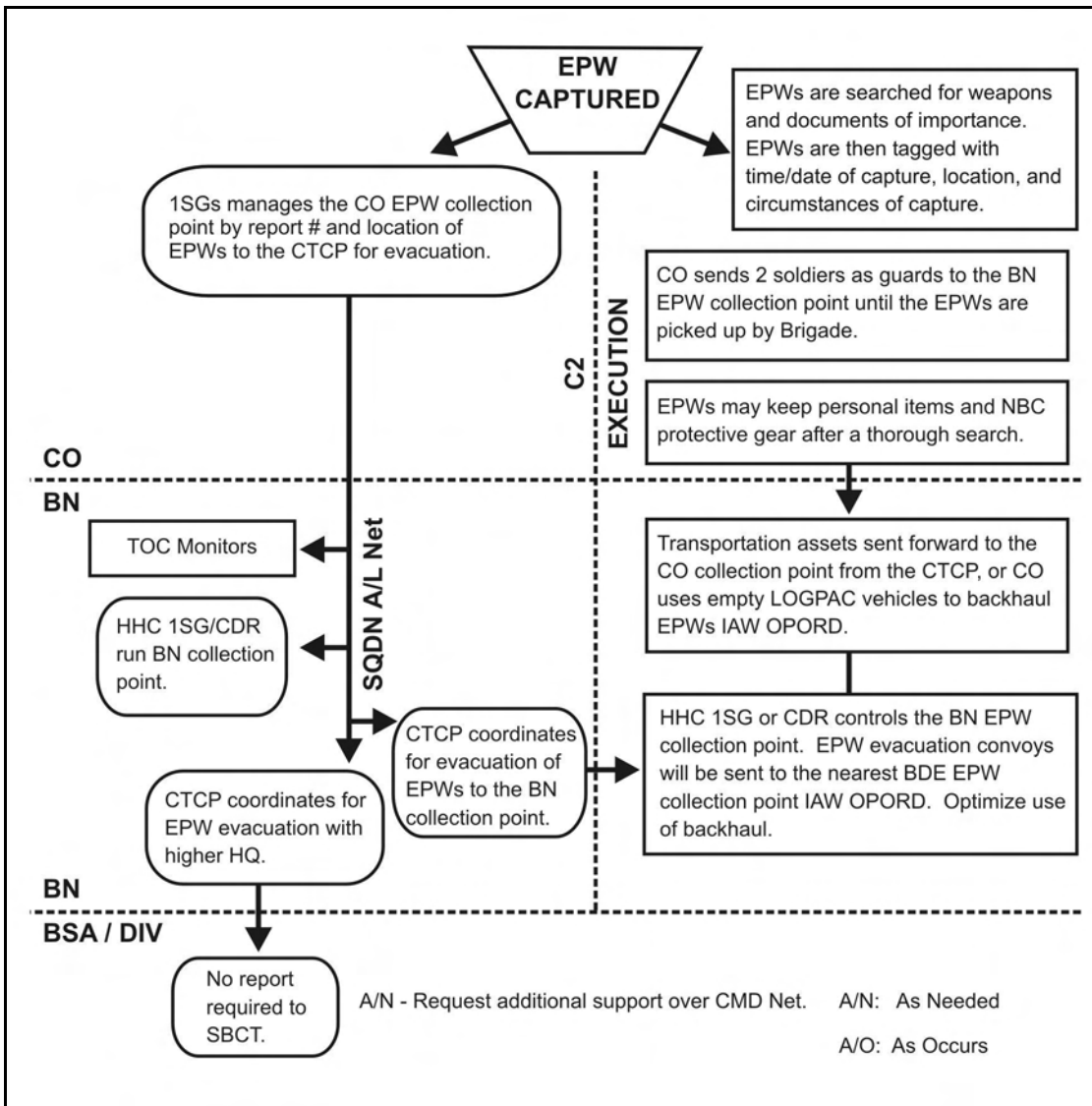
Figure 11-6. EPW handling.

Section IV. SUPPLY AND TRANSPORTATION OPERATIONS

Each SBCT infantry company deploys with 72 hours of supplies. The SBCT infantry battalion does not have organic supply or transportation assets, so the battalion commander must consider the ability of the BSB to resupply his infantry companies. Resupply operations are generally classified as routine or immediate. Cues and procedures for each method are specified in battalion, BSB, and SBCT SOPs and are rehearsed during field training exercises. The actual method selected for resupply in the field depends on METT-TC factors.

11-16. CLASSES OF SUPPLY

Supplies are divided into ten major categories, which are referred to as classes. There are also a few miscellaneous items that do not fit into any of the other ten supply classes. Figure 11-7, page 11-15, shows the classes of supply.

    a. **Class I.** Class I supplies (meals, ready to eat [MREs]) will be configured into unit configured loads by the BSB based on personnel strength reports. These pallet-sized loads will be delivered with the LOGPACs by the BSB's transportation platoon. No unit in the SBCT has organic food service capabilities. Operational rations (MREs) will be used until military augmentation (BSB combat service support company) or contractor support is identified in theater.

    b. **Water.** The BSB's fuel and water support platoon is capable of limited purification with it's two 600 GPH reverse osmosis purification units (ROWPU), limited storage (12,000 gallons), and limited distribution (9,000 gallons per day) of water. The SBCT is expected to obtain bulk water or commercial bottled water in the theater of operations. Each day the SBCT infantry companies should refill one of their two 400 gallon water trailers. The logistics system may not always be able to meet unit needs, particularly during decentralized operations. In most environments, water is available from natural sources. Soldiers should be trained to find, treat (chemically or using field expedients), and use natural water sources. See FM 21-76 for ways the unit can supply its own water, if necessary.

    c. **Class II.** Limited stocks of Class II items (preventive medicine, field hygiene, weapons cleaning, and special tools) will be available at the BSB. Class II (NBC) will be configured at intermediate staging bases (ISBs) and called forward as needed. Class II administrative supplies will not be stocked at the BSB but may be requested as the theater matures.

    d. **Class III.** The BSB's fuel and water support platoon has the only bulk fuel distribution capability within the SBCT. There are twelve HEMMT fuelers (2,500 gallons each) that support all maneuver units with LOGPAC operations. The battalion S4 will arrange for LOGPACs to deliver fuel based on logistics status reports. The BSB positions twelve PLS trailers (2,500 gallons each) in the BSA for bulk fuel storage. The SBCT is expected to obtain fuel in the theater of operations. The BSB retains limited motor gasoline (MOGAS) capability for unmanned aerial vehicles and other miscellaneous equipment.

    e. **Class IV.** The battalion SOP specifies the combat load of Class IV items for each vehicle. The BSB's supply support platoon stocks a limited amount of barrier material such as concertina wire, sandbags, and pickets. Other Class IV must be configured at ISBs and called forward as needed.

    f. **Class V.** The SBCT infantry battalion deploys with a combat load of personal munitions and a turret load of vehicles munitions. The BSB's ammunition transfer point

(ATP) section does not deploy with sustainment stocks. Munitions will be delivered to the BSA as mission configured loads (MCLs) from pre-positioned stocks or CONUS. These SCLs will be delivered on HEMMT-load handling system (LHS) flatracks (without repackaging) to unit LRPs. The flatracks will be left for unit personnel to rearm their equipment. The BSB's HEMMT-LHS vehicles are the only ammunition distribution vehicles within the SBCT.

g. **Class VI.** The BSB does not stock Class VI supplies. After 30 days in theater, the ration supplement health and comfort pack (HCP) is usually issued with Class I rations.

h. **Class VII.** Class VII status is reported through command channels, intensively managed, and command controlled. The BSB will receive replacement items as ready-to-fight systems (equipment, fuel, munitions, and crew). Ready-to-fight systems are sent forward with the LOGPAC.

i. **Class VIII.** Medical supplies, such as first aid dressings, refills for first aid kits, water purification tablets, and foot powder, are supplied by the BSB's brigade support medical company to the battalion medical platoon via LOGPAC or MEV. Initially, sustainment supplies will be pushed to the BSB based on casualty estimates.

j. **Class IX.** The SBCT infantry company stocks limited Class IX to perform organizational maintenance on small arms and communications equipment. The battalion's supporting CRT has limited stocks of line replacement units (LRUs) and consumable parts for repairs. The CRT relies on daily delivery of repair parts from its parent forward maintenance company to conduct maintenance. Rechargeable batteries for night vision devices and man-portable radios may require one-for-one exchange. In combat situations, exchange and controlled substitution are the normal means of obtaining Class IX items.

	I	Subsistence items and gratuitous issue health and welfare items: MREs, T-rations, and fresh fruits and vegetables.
	II	Items of equipment, such as clothing TA 50, pioneer tools, and NBC overgarments.
	III	Petroleum, oils, and lubricants.
	IV	Construction and barrier materials: lumber, sand bags, and barbed wire.
	V	Ammunition: small arms ammo, artillery, rounds, hand grenades, explosives, mines, fuzes, and detonators.
	VI	Personal demand items: post exchange system items: cigarettes, candy, and soap.
	VII	Major end items: vehicles and major weapons systems.
	VIII	Medical material: medicine, stretchers, and surgical instruments.
	IX	Repair parts and components, including kits and assemblies; items for maintenance support: batteries, spark plugs, and axles.
	X	Material to support civil programs such as agriculture and economic development projects: commercial design tractors and farm tools.
MISC		Miscellaneous items that do not fit into one of the classes above: water, maps, captured enemy material, and salvage material.

Figure 11-7. Classes of supply.

11-17. ROUTINE RESUPPLY

Routine resupply operations cover items in Classes I, III, V, and IX, as well as mail and any other items requested by the company. Whenever possible, routine resupply should be conducted daily, ideally during periods of limited visibility.

    a. **Resupply Requirements.** The FBCB2 system has automated the logistics status reporting and supply requisitioning process for the SBCT infantry battalion.

- Each company (1SG or XO) compiles company status and requirements using FBCB2's logistics situation report (LOGSITREP) function. These LOGSITREPs are forwarded to the CTCP using FBCB2.
- The CTCP reviews the reports and forwards individual company reports to the SBCT rear CP, where they are consolidated using CSSCS. The CSSCS in the CTCP is not used for data entry but to view information input; it is managed by the SBCT rear CP.
- The BSB prepares supplies and delivers them based on SBCT OPORDs and SOPs. Delivery may be to a company LRP, battalion LRP, or an area-based LRP. The SBCT rear CP advises the CTCP of the exact quantities of supplies, LRP locations, and timing for LOGPACs (Figure 11-8).

b. **Logistics Package Operations.** The LOGPAC technique is a simple, efficient way to accomplish routine resupply operations. SBCT infantry battalion and BSB SOPs specify the exact composition and execution order of the LOGPAC.

(1) *Preparation.* The BSB SPO coordinates preparation of the LOGPAC:

- The BSB fuel and water platoon prepares HEMMT tankers and HEMMT-LHS vehicles with fuel and water.
- The BSB supply support platoon configures flatracks of supplies, repair parts, and munitions.
- The BSB forward maintenance company prepares equipment returning to the battalion from maintenance. Vehicles returning from maintenance will require drivers from the battalion.
- The BSB transportation platoon is responsible for delivering supplies to the units throughout the SBCT. The platoon leader, or his NCOs, leads the LOGPAC convoys to the LRPs, where they are released to battalion control.

The CTCP must coordinate for other activities to accompany the LOGPAC, to include--

- Replacement personnel and soldiers returning from medical treatment.
- Mail and personnel action documents (including awards and finance and legal documents) from the battalion S1 section.
- UMT visits.

When LOGPAC preparations are complete, the CTCP advises the company. Company supply sergeants generally will accompany the BSB's LOGPAC to the LRP.

(2) *Actions at the LRP.* When the LOGPAC arrives at the LRP, the company supply sergeant quickly assumes control of the company LOGPAC and continues tactical movement to the company resupply point. The LOGPAC will stop at the LRP only when the tactical situation dictates or when ordered by the commander. Security will be maintained at all times.

(3) *Resupply Procedures.* Companies can use the service station or tailgate resupply method. The time required for resupply is an important planning factor. Resupply must be conducted as quickly and efficiently as possible both to ensure operational effectiveness and to allow the company LOGPAC to return to the LRP on time. Service station resupply of the company normally takes 60 to 90 minutes but may take longer. Tailgate resupply usually requires significantly more time than service station resupply.

(4) *Return to the LRP.* Once resupply operations are complete, the LOGPAC vehicles are prepared for the return trip. Vehicles requiring evacuation for maintenance are lined up and prepared for towing. Recoverable parts, human remains and their personal effects, and

EPWs are backhauled on the LOGPAC vehicles. All supply requests and personnel action documents are consolidated for forwarding to the CTCP where the appropriate staff section processes them for the next LOGPAC. The supply sergeant leads the LOGPAC back to the LRP where he links up with the BSB transportation platoon leader. It is critical that the LOGPAC continue to move through the LRP to avoid interdiction by enemy forces or artillery. The reunited LOGPAC convoy returns to the BSA or may move to another LRP. The BSB transportation platoon leader decides when to return empty vehicles back to the BSA.

Figure 11-8. LOGPAC deliveries.
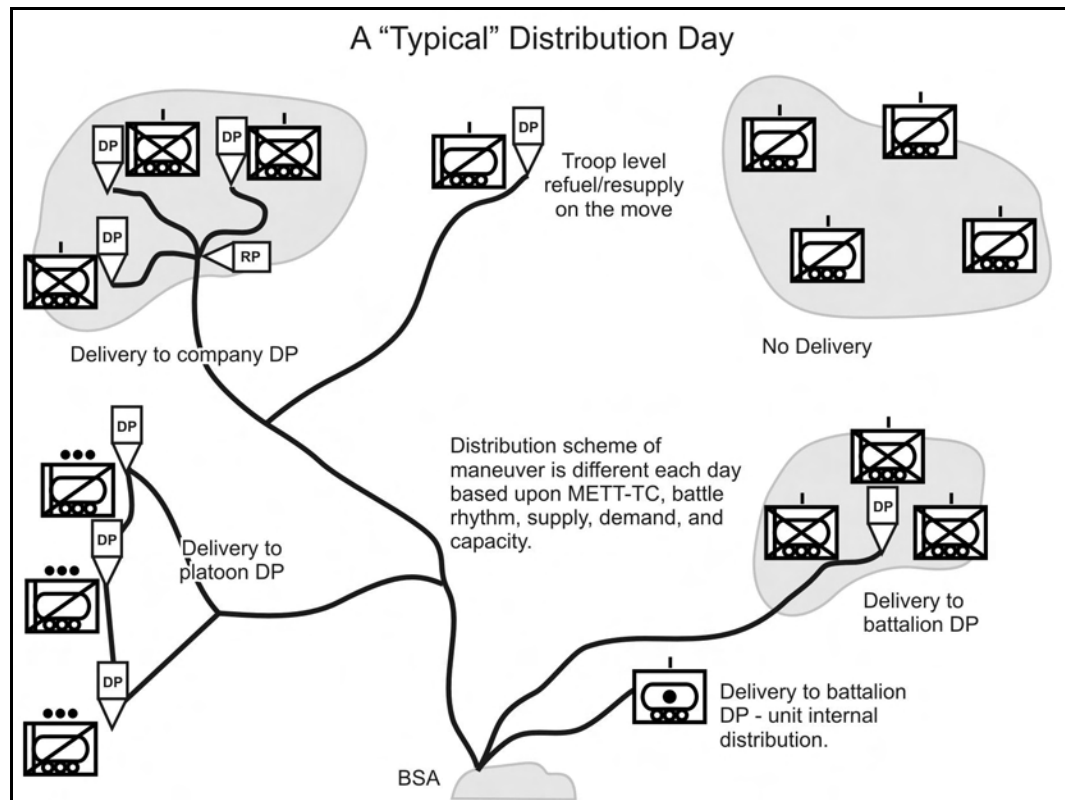
11-18. IMMEDIATE RESUPPLY

Occasionally (normally during combat operations), an infantry company may have such an urgent need for resupply that it cannot wait for a routine LOGPAC. Immediate (or emergency) resupply may involve Classes III, V, and VIII, as well as NBC equipment and, on rare occasions, Class I. The SBCT will use BSB vehicles and HHC medical assets to conduct emergency resupply. The BSB has a limited capability to prepare sling loads should the SBCT be augmented with air support.

11-19. PRESTOCK OPERATIONS

Prestock resupply, also known as pre-positioning or cache, is most often required in defensive operations. Infantry companies, and sometimes the infantry battalion, plan and execute prestock resupply using company assets. Normally only Class V items are pre-positioned. Class III supplies can be pre-positioned, but this requires company vehicles to refuel before moving into fighting positions during initial occupation of the battle position or

to move out of their fighting positions to conduct refueling operations at the rear of the BP. Prestock operations must be carefully planned and executed at every level. All leaders, down to vehicle commanders and squad leaders, must know the exact locations of prestock sites, which they verify during reconnaissance or rehearsals. The SBCT infantry company must take steps to ensure survivability of the prestock supplies. These measures include digging in prestock positions and selecting covered and concealed positions. The company commander must also have a plan to remove or destroy pre-positioned supplies to prevent the enemy from capturing them. (See FM 3-21.11 for additional details on prestock operations.)

11-20. SUPPLY AND TRANSPORTATION CONSIDERATIONS

The techniques described in the preceding paragraphs are the normal methods for resupply. However, a basic understanding of nonstandard techniques and different modes of delivery is also required for the successful execution of the sustainment function.

a. **Aerial Resupply.** Aerial delivery capability is not resident in the SBCT. Air Force airlift and Army aviation assets may supplement the SBCT's transportation capability. When supply routes become severely disrupted, the use of aerial delivery may be necessary. The infantry battalion must be prepared to receive both air-dropped and sling-loaded supplies. The receiving commander must consider the enemy's ability to locate his unit by observing the aircraft. Unless conducting the resupply in an area under friendly control and away from direct enemy observation (reverse slope of a defensive position with recon well forward), locate the drop zone (DZ)/LZ away from the main unit in an area that can be defended for a short time. The delivered supplies are immediately transported away from the DZ/LZ. Each unit must know how to select pick-up and landing zones and receive aerial resupply. (See FM 90-4.)

b. **Cross-Leveling.** Cross-leveling is simply a redistribution of supplies throughout the unit. Usually done automatically within companies after every engagement, the battalion may cross-level supplies between companies when resupply cannot be effected. In some instances, supplies may not be evenly redistributed. For example, during stability operations, a company defending a base camp may postpone fuel resupply so that a company conducting an area presence mission is completely supplied.

Section V. MAINTENANCE OPERATIONS

The maintenance of weapons and equipment is continuous. Every soldier must know how to maintain his weapon and equipment in accordance with the related technical manual. The commander, XO, and 1SG must understand maintenance for every piece of equipment in the company.

11-21. SBCT MAINTENANCE CONCEPT

The SBCT maintenance concept is based upon the two-level maintenance system and centralized management. The two levels of maintenance are field and sustainment. Field maintenance is the combined organizational and direct support tasks performed by the BSB's combat repair teams to return a piece of equipment to an operational status. Sustainment maintenance occurs at echelons above the SBCT. The BSB's forward maintenance company provides all maintenance support for the SBCT, less medical and the limited automation capability that is integrated into the SBCT's S6 sections and the signal

company. The FMC has limited ability to perform automotive, missile, armament, communications, special devices, line replacement unit, and power generation repair. The BSB may augment its capability with contractor maintenance support. Centralized management of all field maintenance by the BSB allows infantry commanders to focus on preventive maintenance checks and services (PMCS) to keep their units' weapons systems operational.

11-22. MAINTENANCE REQUIREMENTS
Proper maintenance is the key to keeping vehicles, equipment, and other materials in serviceable condition. It is a continuous process that starts with preventive measures taken by each vehicle crew and continues through repair and recovery efforts by maintenance personnel. It includes the functions of inspecting, testing, servicing, repairing, requisitioning, recovering, and evacuating equipment.

a. The unit SOP should detail when operator maintenance is performed (at least once a day in the field), to what standards, and who inspects it. The squad leader is most often the one who inspects maintenance work, with company leadership conducting spot-checks.

b. Maintenance applies to all equipment. Items such as computers, communications, and other electronic devices are also maintained and inspected. FBCB2 requires periodic removal of unnecessary files. Platform and filter settings need to be checked and adjusted by the chain of command.

c. Inoperative equipment is fixed as far forward as possible. When a piece of equipment is damaged, the crew makes a quick inspection to see if it can be repaired on the spot. Usually the CTCP will dispatch a repair team from the BSB's supporting CRT. If equipment cannot be repaired forward, it is evacuated immediately or returned with a LOGPAC. Even if the item cannot be evacuated at once, the CSS system is alerted to prepare for repair or replacement. If a replacement is available (from an evacuated soldier or inoperative equipment), it is sent forward.

d. Battle damage assessment and repair (BDAR) is rapid damage assessment and repair, bypassing or jury-rigging components, to support a combat mission or enable self-recovery. The purpose of BDAR is to return disabled combat equipment to the tactical commander as quickly as possible. The CTCP implements the commander's guidance on whether or not to use BDAR in lieu of normal maintenance procedures. Such enabling repairs may be temporary or permanent, depending on the repair required. At the completion of immediate combat operations, mechanics will make repairs that will return the equipment to fully mission-capable status. Since it may not be possible to train BDAR techniques in peacetime using actual equipment, the best substitute is to train system-oriented crews and mechanics to understand the principles associated with weapon systems. BDAR actions include:

- Using shortcuts to install or remove parts.
- Modifying and installing components designed for other vehicles or equipment.
- Using parts serving a noncritical function on a like vehicle.
- Jury-rigging to bypass noncritical components.
- Using substitute fuels, fluids, or other POLs.

11-23. COMPANY ROLE

The infantry company is where maintenance must occur. Maintenance begins with crew PMCS and preparation of the appropriate equipment inspection and maintenance forms (DA Form 2404 or 5988-E). These forms are the primary means through which the company obtains maintenance support or repair parts. Per unit SOP, the company XO or 1SG supervises the "flow" of these critical maintenance documents and parts.

a. Companies collect the maintenance forms each day, validate them, and forward them via FBCB2 or hard copy to the CTCP and it's supporting CRT. During the next LOGPAC operation, the completed hard copy forms are returned to the CRT to document acknowledgement of the maintenance or parts required.

b. The individual soldier or vehicle crew conducts initial maintenance, repair, and recovery actions on site. Once it is determined that the crew cannot repair or recover the vehicle or equipment, the crew initiates a maintenance call for support using FBCB2. The CFS is sent in accordance with unit SOP to the supporting CRT and CTCP. Once a CFS has been sent, the company can monitor status through the logistics task management application of FBCB2 (Figure 11-9).

c. Repair parts that do not require CRT assistance are packaged in the BSA and delivered during the next LOGPAC.
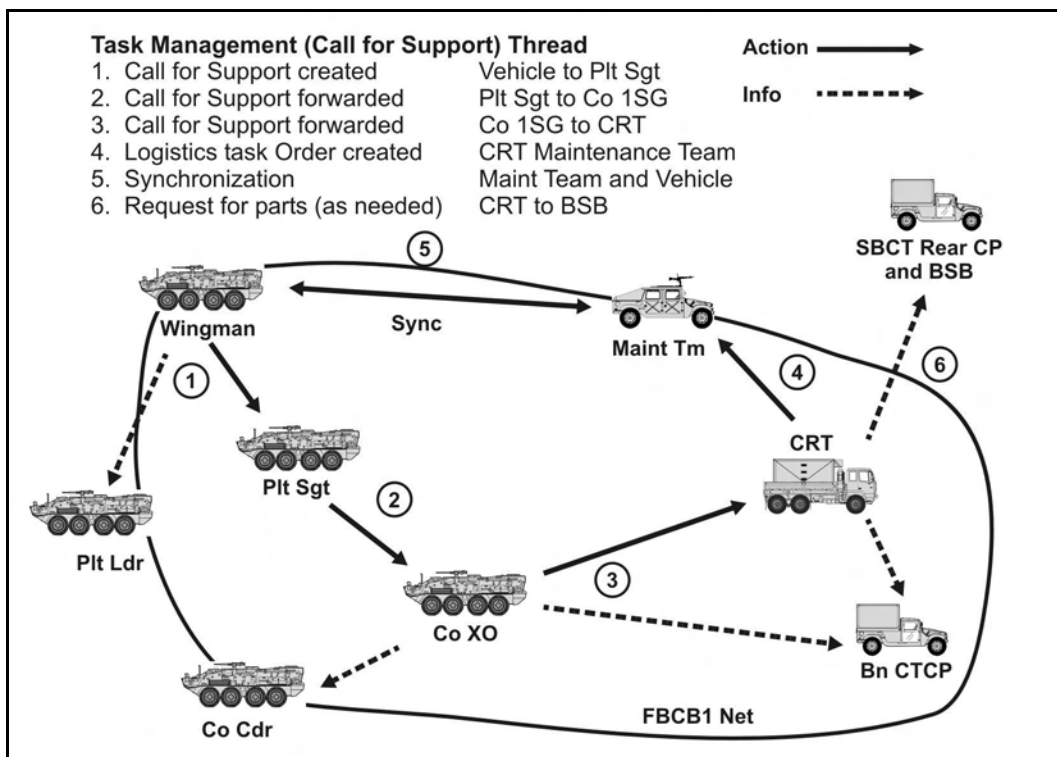
Figure 11-9. Call for support thread.

11-24. BATTALION ROLE

The battalion supervises the preventive maintenance work of companies, directs the repair work of the combat repair team, and coordinates for support from the BSB. Technical guidance for the CRT comes from its parent forward maintenance company.

a.   Daily maintenance management begins with the arrival of the appropriate equipment inspection and maintenance forms at the CTCP and CRT. FBCB2 and CSSCS are used to monitor operational status, maintenance requests in process, and repair parts flowing from the BSB.

b.   The CRT reacts to calls for support IAW CTCP priorities. The CRT generates a logistics task order to advise the support requester (and the CTCP) the status of his request. The CRT will assess the damaged or broken equipment and make necessary repairs to the equipment or order the necessary repair parts (Figure 11-9, page 11-20).

c.   The CRT requests back-up support or evacuates the vehicle to the BSA.

11-25. DESTRUCTION

When a vehicle or piece of equipment cannot be recovered or is damaged beyond repair, the company CRT reports the situation to the CTCP. The battalion commander gives permission for destruction of the materiel if that is the only way to prevent enemy capture.

Section VI. HEALTH SERVICE SUPPORT

The medical threat to soldiers comes from both enemy action and environmental situations that could adversely affect their combat effectiveness. Effective, timely medical care is an essential factor in sustaining combat power during continuous operations. The infantry battalion must ensure that its medical platoon and infantry companies coordinate with the brigade support medical company to become an integrated system of medical care.

11-26. PREVENTIVE MEDICINE

For the last forty years, disease and nonbattle injuries have been the major medical threat during military operations. Commanders and unit leaders are responsible for protecting their personnel against injuries that may result from diseases, inclement environments (heat and cold injuries), and accidents.

a.   The company commander must emphasize and enforce high standards of health and hygiene at all times to preclude diseases from affecting soldier readiness. Proper use of risk assessment during troop-leading procedures, and subsequent risk management of those risks identified, will help prevent injuries and accidents. (See Appendix E, Risk Management and Fratricide Avoidance.) Unit SOPs must address the following areas of concern:

- Ensure clean drinking water is supplied to and consumed by soldiers.
- Ensure proper control of unit waste--both human waste and trash.
- Prevent weather-related problems. These include cold injuries such as frostbite, trench foot, and immersion foot, and heat injuries like heat exhaustion and heat stroke. Soldiers must understand the effects of conditions such as sunburn and wind-chill.
- Prevent battle fatigue to include strict implementation of the unit sleep plan. (See Appendix L, Continuous Operations.)

b.   Though the medical platoon does not have organic preventive medicine assets, the platoon leader can call upon the resources of the BSMC.

(1) The preventive medicine section provides advice and consultation in the areas of disease and non-battle injuries (DNBI), environmental sanitation, epidemiology, entomology, and medical surveillance as well as limited sanitary engineering services and

pest management. This section is particularly valuable in the establishment of base camps.

(2) The mental health section provides training and advice in the promotion of positive combat stress behaviors and the early identification, handling, and management of misconduct stress behavior and battle fatigued soldiers. It assists and counsels personnel with personal, behavioral, or psychological problems.

11-27. SOLDIERS WOUNDED IN ACTION

Medical treatment of wounded or injured soldiers during combat operations is a continuous, progressive operation that occurs in a series of separate but interconnecting stages. It involves personnel, equipment, and facilities at virtually every level of the organization. The normal flow of medical treatment for combat casualties is from the injury site to the casualty collection point to the battalion aid station to the brigade support medical company. The following paragraphs discuss responsibilities at each phase of this process.

a. **Injury Site.** The combat lifesaver (CLS) is almost always the first person on the scene to begin the process of treating wounded and injured personnel. The CLS is a non-medical soldier trained to provide advanced first aid and or 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. The vehicle commander is responsible for ensuring that injured crewmen receive immediate first aid and that the commander is informed of casualties. He coordinates with the 1SG and company senior medic for ground evacuation. The vehicle commander ensures that casualty feeder (DA Form 1156) and witness statement (DA Form 1155) forms are completed and routed to the proper channels. Details on completion of these forms are provided in FM 3-21.11. (The casualty feeder card stays with the wounded soldier; witness statements are given to the 1SG.)

b. **Casualty Collection Point.** At the CCP, the senior medic conducts triage of all casualties, takes the necessary steps to stabilize their condition, and initiates the process of moving them to the rear for further treatment. He assists the 1SG in arranging evacuation via ground or air ambulance or by non-standard means. The medical platoon habitually positions a medical evacuation vehicle ambulance with each company to provide evacuation and en route care from the soldier's point of injury or the company's CCP to the BAS. In mass casualty situations, non-medical vehicles may be used to assist in casualty evacuation as directed by the company commander.

NOTE: Before casualties are evacuated beyond the CCP, leaders should remove all key operational items and equipment. Protective masks must stay with the individual.

c. **Battalion Aid Station.** The BAS conducts emergency medical treatment and advanced trauma treatment. Only procedures necessary to preserve life or limb or enable a patient to be moved safely are performed at the BAS. The BAS is normally positioned within 30 minutes' driving time of expected casualties. Patients are evacuated from the BAS by BSMC HMMWV ambulances. The BSMC habitually positions ambulances at an ambulance exchange point collocated with or near the BAS. During entry operations, air ambulances may not be available for the first 96 hours.

NOTE: Designated medical personnel collect DA Form 1156 at the aid station; it is forwarded through S1 channels for processing by the SBCT S1 in the BSA.

d. **Brigade Support Medical Company.** The BSMC performs Echelon II health service support. This includes medical evacuation from the BAS to the BSMC, patient holding, combat stress control (CSC) support, Class VIII resupply, preventive medicine support, medical equipment maintenance, x-ray, laboratory, and operational dental care. The BSMC also provides area medical support to BSA elements and back-up support to forward maneuver battalions. After the first 96 hours of brigade operations, the BSMC is normally augmented with a corps-level forward surgical team.

11-28. BATTALION MEDICAL PLATOON
The medical platoon of the infantry battalion is comprised of a headquarters, a combat medic section with 12 combat medics, an evacuation squad with four evacuation teams in MEV ambulances, and a treatment squad with two treatment teams in HMMWV ambulances (with trailers) (Figure 11-10).
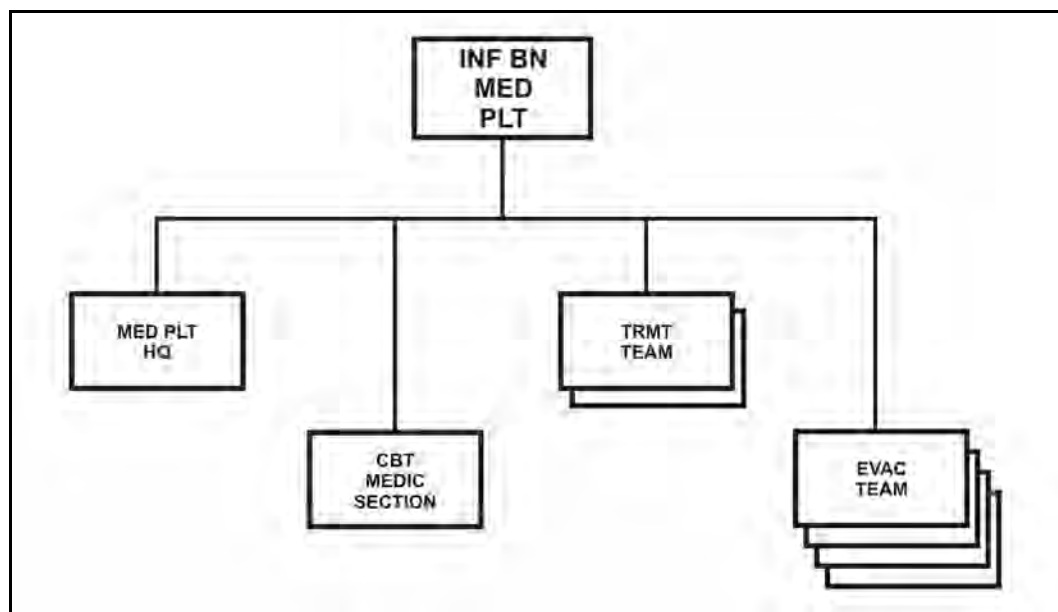
Figure 11-10. Battalion medical platoon.

a. **Platoon Headquarters.** The medical platoon leader is also the battalion surgeon. The platoon headquarters section is comprised of a field medical assistant and the PSG. It is normally collocated with a treatment team or a treatment squad to form the BAS. The field medical assistant, a medical services corps officer, is the operations/readiness officer for the platoon. He is the principal assistant to the platoon leader for operations, administration, and logistics. The field medical assistant coordinates HSS operations with the CTCP and evacuation with the BSMC. The PSG also serves as the evacuation squad SGT.

b. **Combat Medic Section.** Trauma specialists are allocated to the companies of the infantry battalion on the basis of one trauma specialist per platoon. The platoon trauma specialist normally locates with, or near, the platoon leader or PSG. A health care SGT is

allocated on the basis of one per infantry company. The company health care SGT normally collocates with the 1SG. As the tactical situation allows, he will manage the company CCP, provide medical treatment, and prepare patients for MEDEVAC.

c. **Evacuation Squad.** Evacuation teams in MEV ambulances are pre-positioned forward and evacuate casualties from the point of injury to the treatment teams/BAS. Three evacuation teams are in direct support of each infantry company while the fourth evacuation team provides an area support role.

d. **Treatment Squad.** The platoon's treatment teams operate with the BAS in either a static or mobile mode, to provide unit level HSS.

(1) The BAS has two treatment teams that can operate for limited times in split-based operations to ensure that soldiers receive treatment within 30 minutes. The teams can also operate in split-based operations when the BAS must move to a new location. One team remains at the current location and continues to treat patients while the other team moves to the new location and establishes patient care capabilities. Once the jump team has established a treatment capability at the new location, the other team evacuates or returns to duty all patients and moves to the new location.

(2) The BAS is under the tactical control of the CTCP. The battalion S4 closely coordinates locations for forward positioning the BAS with the battalion S3. Coordination ensures that CSS elements are not placed in the way of friendly maneuvering forces, in line of fires, or in areas subject to be overrun by rapidly advancing enemy forces.

11-29. MEDICAL COMMUNICATION FOR COMBAT CASUALTY CARE

The medical communication for combat casualty care computer system provides fully integrated medical information and communications to link all echelons of medical care. The medical platoon leader, both battalion treatment squads, and each MEV are equipped with MC4. MC4 uses the theater medical information program (TMIP) software and provides deployable medical forces with automation and advanced communication capabilities to link to medical information systems and databases, administrative procedures, medical diagnostic and monitoring systems, patient treatment systems, and evacuation platforms. The preformatted reports in MC4 provide the input data for the medical module of CSSCS.

11-30. SOLDIERS KILLED IN ACTION

Commanders are responsible to recover and evacuate soldiers killed in action to a collection point. Control of human remains and their personal effects is a systematic process. The following paragraphs discuss responsibilities at each phase of this process.

a. **Platoon.** During reorganization, the remains of those killed in action are brought to a company collection point. Casualty feeder (DA Form 1156) and witness statement (DA Form 1155) forms are completed. All personal effects remain with the body, but equipment and issue items are turned over to the 1SG.

b. **Company.** The supply sergeant, in coordination with (ICW) the platoon, inventories the personal effects using the record of personal effects of deceased personnel (DD 1076). (See Figure 11-11.) The company arranges for the remains to be transported to a mortuary affairs collection point in the BSA. As a rule, remains should not be transported on the same vehicle as wounded soldiers.

c. **Battalion.** The commander sends a letter of condolence to the soldier's next of kin, normally within 48 hours of the death.

d. **SBCT.** The BSB's mortuary affairs NCO and the SBCT S1 section coordinate to process the human remains and supporting documentation as part of the casualty management program.

Figure 11-11. Record of Personal Effects of Deceased Personnel (DD 1076).

Section VII. REORGANIZATION AND WEAPONS REPLACEMENT

To maintain effective, consistent combat power, the battalion must have specific plans and procedures that allow each element to quickly integrate replacement personnel and equipment. Unit SOP should define how soldiers and equipment are prepared for combat, including areas such as uploading, load plans, PCIs, and in-briefings.

11-31. REPLACEMENTS AND CROSS-LEVELING OF PERSONNEL

Replacements for wounded, killed, or missing personnel are requested through the SBCT S1. Returning or replacement personnel delivered with the LOGPAC should have already

been issued all TA-50 equipment, mission oriented protective posture (MOPP) gear, and other items, including their personal weapons. The battalion S1 cross-levels personnel among companies to implement the commander's guidance.

11-32. PERSONNEL REPLACEMENT PROCEDURES

Integrating replacements into the battalion and company is important. A new arrival on the battlefield may be scared and disoriented as well as unfamiliar with local SOPs and the theater of operations. The following procedures help integrate new arrivals.

a. The SBCT must establish SOPs on the processing of new personnel. Replacements who arrive in the BSA must be fed, billeted, and equipped.

b. The battalion conducts inprocessing using TPS and SIDPERS-3. New soldiers may be given a form letter to send to their next of kin. The letter should tell family members where to mail letters and packages, tell them how to use the Red Cross in emergencies, and introduce them to the chain of command. The medical platoon collects field medical records or digital personal information carriers (PIC). Once assigned to a company, the battalion S1 arranges for transportation with a LOGPAC.

c. The company commander and platoon leadership meet the replacements and welcome them to the unit. This is normally a brief interview. Companies must have an SOP for reception and integration of newly assigned soldiers.

11-33. REPLACEMENT AND SALVAGING OF EQUIPMENT

Lost, damaged, or destroyed equipment is reported and requisitioned through normal supply channels. Class VII replacements can be either components of end items such as radios, night vision devices, or small arms or end items such as ICVs, HMMWVs, or medical tactical vehicles (MTVs). Accountability of end items (Class VII) is done by echelons above the SBCT. Accountability of smaller equipment and components (Class II) is done by supply sergeants using hand receipts.

11-34. WEAPONS SYSTEM REPLACEMENT OPERATIONS

Weapons system replacement operations (WSRO) are conducted to provide units with fully operational, ready-to-fight (RTF) replacement weapons systems to include both vehicle and crew-served systems. Echelons above the SBCT will provide replacement weapons systems to battalions based on SBCT priorities. Before these weapons systems are sent forward for delivery to the company, the battalion supervises the completion of all necessary pre-combat checks.

Section VIII. CSS FROM OUTSIDE THE SBCT

Logistically, the SBCT relies on division or corps headquarters acting as the ARFOR command for sustainment. This headquarters often contains a tailored slice of a theater support command (TSC). The SBCT must exploit regionally available assets for transport, supply, and services. These assets include joint, multinational, host nation, and contracted support resources. Generally, the SBCT rear CP will coordinate for the use of these assets, but their employment will often occur within the battalion sector and require battalion supervision.

11-35. INTERMEDIATE STAGING BASE

An intermediate staging base is a secure base usually established within the theater of operations near to, but not in, the area of operations. The ISB provides a secure, high throughput facility. Once established there are two basic roles for an ISB: first, in the traditional role as a staging base for deploying units in transit to an AO; and second, as a remote support base.

a. **Staging Base.** Deploying forces debark from strategic lift, reassemble, and prepare for missions in the AO. For deploying forces transiting through, ISBs allow the supported commanders time to gather additional intelligence on the AO and finalize plans following briefings and rehearsals, and deploying soldiers can recuperate after long trips from their home stations. Support requirements at a staging base depend on the deployment flow, timelines, and the requirements of the transient force population. ISBs may also serve as a secure staging area for redeploying units, non-combatant evacuation operations evacuees, and so on, until strategic lift is made available for deployment or evacuation to final destinations.

b. **Support Base.** The support role of the ISB may involve two types of support capabilities. First, certain elements engaged in split-based operations may locate in an ISB. (Others stay at home station or CONUS.) Aspects of such functions as distribution and materiel management and some personnel or legal functions may be performed by elements at an ISB. The second part of an ISB involves the deliberate positioning of stocks and units or capabilities dedicated for a specific operation. These are then quickly moved to the AO via intra-theater transportation when additional support is required in the AO. Examples of facilities and capabilities that may be at an ISB include:

- Contracting elements for local supplies or services.
- Command post sites.
- Repair parts.
- Ground maintenance support.
- Aviation intermediate maintenance (AVIM) support.
- Medical facilities and telemedicine.
- Civil affairs and intelligence preparation of key leaders and troops.
- Personnel services and replacement operations.
- Finance support (to include limited currency exchange).
- Mortuary affairs.
- Ammunition supply activities.
- Explosive ordnance disposal support.
- Waste management--gray and black water, solids, medical, and hazardous materials.

11-36. CONTRACTING AND HOST NATION SUPPORT

The SBCT is expected to use contractors, DA civilians, and host nation support in the area of operations.

a. **Contracting Support.** Though they involve a number of risks, contractors and DA civilians are playing an ever-increasing role in providing combat service support to US forces. The Army may use contractors to bridge gaps between required capabilities and actual force structure available within an AO. Contractors may be employed, subject to METT-TC, throughout the AO and in virtually all conditions. Protecting contractors on

the battlefield is the commander's responsibility. When contractors are expected to perform in potentially hostile areas, the supported military forces must assure the protection of their operations and personnel. Commanders must understand that contractors are subject to the same threat as soldiers and must plan accordingly. Contractor personnel cannot be required to perform force protection functions and cannot take an active role in hostilities but retain the inherent right to self-defense. The defense logistics agency will provide bulk fuel, water, and food, either through pre-positioned stocks or host-nation contracts. The logistics civil augmentation program (LOGCAP) is also available to the SBCT when needed.

(1) *SBCT Role.* The SBCT contracting element will operate as direct support to the SBCT only in the unusual case where there is no Army principal assistant responsible for contracting (PARC) or other lead service theater support contracting cell supporting the SBCT AO. In most situations, the SBCT contingency contracting officers (CCOs) will be consolidated into the PARC contracting office in the AO. Anyone in the SBCT can generate a contracting support requirement for his organization or staff section. In order to execute a contract item, the requester must have a valid requirement and a certified funding document. It is essential that CCOs work with the appropriate finance and accounting activities and legal support in executing their duties.

(2) *BSB Role.* The BSB is authorized two contingency contracting officers to provide contracting support to the SBCT and AOR PARC. They coordinate and execute acquisition of contracting requirements, typically using local contracts.

(3) *Unit Role.* The commercial government-wide purchase card (GPC) used in CONUS may also be used outside CONUS (OCONUS). Merchant acceptance of the GPC varies widely outside the US. Contingency planning should determine whether the GPC is useful in specific instances. The source of funding associated with the GPC must be taken into consideration. Commanders may not wish to use their GPC, especially if funding is not available from contingency operational funds. As a general rule, commanders should anticipate the need for contracting.

b. **Host Nation Support.** Host nation support is provided to Army forces and organizations located in or transiting through host nation territory and includes both civil and military assistance. This support can include assistance in almost every aspect required to sustain military operations within a theater. Planners must consider that host nation support meets local, not necessarily US, standards. Host nation support can be a significant resource provided it is available and that appropriate agreements are in place.

11-37. EXPLOSIVE ORDNANCE DISPOSAL
Explosive ordnance disposal capabilities are not organic to the SBCT. EOD augmentation will be required from ARFOR to support SBCT operations. Once unexploded ordnance (UXO) is located and reported, the chain of command to the ARFOR EOD cell determines what EOD assets may respond. EOD teams may be called forward from an ISB as required. The EOD asset of any service nearest to theater responds.

11-38. FIELD SERVICES
Field services include laundry and shower support and field feeding. There is no organic field service support in the SBCT. Military augmentation (such as CSSC, corps, or force provider assets) or contractors will provide field services.

a. **Laundry and Shower.** A quartermaster (QM) field service company can be deployed in support of a brigade-size element. It is designed to provide soldiers one shower per week, at a minimum. Laundry service allows soldiers to meet the Surgeon General's standard of changing clothes at least every seven days and permitting the soldier to turn in up to 15 pounds of dirty laundry per week. The field service company does *not* provide laundry decontamination support, and showers are not required for troop decontamination of chemical and biological agents. Soldiers may need their clothing to be repaired on the battlefield. This support may be provided by three methods, depending on the extent of the requirement: self-help, direct support through the field service company clothing repair element, and support through host nation support and or contract service.

b. **Field Feeding.** Food is one of the most important factors affecting a soldier's health, morale, and welfare. The Army field feeding system is based on the requirement to serve three quality meals per day. It stresses the capability to distribute, prepare, and serve a unitized group ration A (UGR-A), a heat-and-serve UGR meal (URG-H&S), and a meal, ready-to-eat individual ration after initial entry into the theater. The SBCT provides no consolidated food preparation for its units. With augmentation of military personnel or contracted support, the SBCT will receive prepared meals based on METT-TC. If available, the food service support teams of the CSSC will serve UGR-A or UGR-H&S meals based on METT-TC.

11-39. GENERAL ENGINEERING SUPPORT
The SBCT organization consciously excludes the construction engineer capability often provided in a division slice. The LOGCAP is the most commonly used means of general engineer support available to the SBCT.

APPENDIX A

INTEGRATION OF SPECIAL OPERATIONS, MECHANIZED, AND LIGHT FORCES

Employing Stryker, special operations, and mechanized infantry with light infantry units is a combat multiplier. These operations take advantage of the light unit's ability to operate in restrictive and severely restricted terrain (such as urban areas, forests, and mountains), combined with the mobility and firepower inherent in SBCT and mechanized units. To ensure SBCT or mechanized and light assets are integrated and synchronized, forces should be mutually supporting based on the commander's concept of employment. SOF provide the Stryker infantry commanders with force multipliers, especially in information operations, effects, and intelligence. This appendix addresses conditions SBCT infantry battalion commanders must consider when planning and executing four types of tactical operations: when provided a light infantry company, when operating as part of a mechanized brigade, when operating as part of a light infantry brigade, or when linking up with special operations forces.

Section I. ORGANIZATION, CAPABILITIES, AND LIMITATIONS

Across the spectrum of operations, there is an overlap in which SBCT, mechanized, and light forces can operate. The use of a mixed force in this overlap takes advantage of the strengths of the forces and offsets their respective weaknesses. Mechanized/light or SBCT/light operations occur when an SBCT or mechanized force has light forces attached. Light/mechanized or light/SBCT operations occur when a mechanized or SBCT force is OPCON to a light infantry force. The integration of SBCT or mechanized and light forces can take advantage of the enemy force's structure to attack its weaknesses and seize the initiative

NOTE: For the purpose of brevity, this appendix will use the term *mechanized* to indicate Bradley fighting vehicle (BFV)- and tank-equipped units. *Light* forces include airborne and air assault infantry units and SOF include ranger units.

A-1.   MECHANIZED FORCES AND LIGHT INFANTRY OPERATIONS
The potential to use mechanized and or light forces together as part of an SBCT in military operations is unlimited. Their synergistic effort will capitalize on the strength of each, offset weaknesses, and attack the perceived weaknesses. The interjection of light forces into a theater of war dominated by friendly mechanized or SBCT forces allows a flexible response to increasing tensions and a rapid response in the face of a sudden all-out attack.
    a. **Factors of METT-TC.** SBCT/mechanized or light infantry forces are not routinely mixed but can be effective given the proper situation. The decision to cross-attach forces is based on corps- or JTF-level war planning or on the initiation of a subordinate commander's request for augmentation. In all cases, the factors of METT-TC drive the decision to use mechanized, SBCT, or light forces together.

b. **Advantages and Challenges.** One advantage of mixing mechanized, light infantry, or SBCT forces is greater tactical flexibility for the maneuver commander. In the offense, the light force can infiltrate by ground or air to seize and hold restricted and severely restricted terrain, allowing the SBCT or mechanized battalion to move faster, or it can air-assault into the enemy's rear, disrupting his defenses to create an exploitable weakness. Additionally, light infantry and SBCT elements can execute tasks that mechanized forces may not have the manpower or training to perform, such as attacking in restricted terrain to defeat enemy infantry in prepared positions. In the defense, the light force can defend in restricted and severely restricted terrain and allow the mechanized battalion to mass its systems along the enemy's primary mounted avenue of approach. Along with such flexibility, the integrated force also has the advantage of the mobility and firepower inherent in mechanized units. The challenge of mechanized, light, and SBCT operations is to understand the capabilities and limitations of each type of force structure. To ensure effective integration of mechanized, light, and SBCT assets, all forces should be mutually supporting based on the commander's concept of employment.

A-2. MECHANIZED FORCES MISSIONS, CAPABILITIES, AND LIMITATIONS

An SBCT infantry battalion operating with mechanized forces should consider the following missions, capabilities and limitations of mechanized forces.

a. **Missions.** The missions given to mechanized forces are best suited for unrestricted terrain.

b. **Capabilities.** Mechanized forces have the capability to--

- Conduct sustained combat operations in all environments.
- Accomplish rapid movement and deep penetrations.
- Exploit success and pursue a defeated enemy as part of a larger formation.
- Conduct security operations (advance, flank, and rear guard) for a larger force.
- Conduct defensive operations or delay in sector over large areas.
- Conduct offensive operations.
- Conduct operations with light and special operations forces.
- Conduct stability and support operations.
- Deploy personnel task-organized to an AO onto pre-positioned equipment.

c. **Limitations.** The following are limitations of mechanized forces:

- Mechanized forces are mainly dependent on radio communications. This makes mechanized forces vulnerable to EW reconnaissance. In the future as the mechanized forces field C2 INFOSYS, this limitation may be reduced.
- Mechanized forces have restricted mobility in jungles, dense forests, steep and rugged terrain, built-up areas, and water obstacles.
- They have a high consumption rate of supply items, especially Classes III, V, and IX.
- They are vulnerable to antiarmor weapons and mines.
- Tank elements have difficulty defending positions against enemy infantry.
- Mechanized forces are not able to conduct long duration or continuous dismounted infantry operations.
- Mechanized forces require a secure ground line of communication.

A-3. LIGHT FORCES MISSIONS, CAPABILITIES, AND LIMITATIONS

The SBCT and its SBCT infantry forces may support any of three types of light infantry units: light, airborne, and air assault. The light infantry organizations vary in capabilities and limitations and in their impact on the mechanized or SBCT force. For example, differences in the organization of the brigade headquarters and in antiarmor capability may affect the battalion mission. The commander and staff must understand the organization of the forces that the battalion may support and forces that may be attached or OPCON to the battalion.

a. **Missions.** The missions given to an infantry battalion must consider the enemy's armored superiority in mobility and firepower. The infantry battalion must offset its vulnerabilities with dispersion, cover and concealment, and use of close and hindering terrain to slow the enemy. Table A-1 provides examples of possible light infantry tasks.

MECHANIZED/SBCT BATTALION MISSIONS	LIGHT INFANTRY COMPANY TASK
Movement to Contact	Clear and secure restricted areas; follow and support.
Attack	Air-assault to fix or destroy enemy targets; infiltrate or air-assault to seize objectives; breach obstacles; create a penetration.
Exploitation	Secure LOC; air-assault to seize terrain or attack enemy forces.
Pursuit	Clear bypassed forces; air-assault to block enemy escape.
Follow and Support	Secure key terrain and LOC; provide rear security.
Defense	Block dismounted avenues; perform security tasks; occupy strongpoint; ambush; provide rear area security; conduct urban operations.
Linkup	Serve as follow-up echelon.
Demonstration	Conduct display operations.
Retrograde Operations	Provide rear security, clear routes, occupy positions in depth; perform reconnaissance or deception; conduct stay-behind operations.

Table A-1. Examples of possible tasks.

b. **Capabilities.** Light forces have the capabilities to perform the following actions:
- Seize, occupy, and hold terrain.
- Move on foot or by aircraft, truck, or amphibious vehicle.
- Move in all types of terrain.
- Conduct operations with tank and mechanized infantry forces.
- Conduct covert breaches.
- Conduct air assault operations.

- Take part in counterinsurgency operations within a larger unit.
- Rapidly accept and integrate augmenting forces.
  c. **Limitations.** Light forces have the following limitations:
  - They must depend on nonorganic transportation for rapid movement over long distances.
  - Without protective clothing, they are vulnerable to the effects of prolonged NBC exposure.
  - They require external support when they must operate for an extended period.
  - Unless dug in with overhead cover, they are extremely vulnerable to indirect fires.
  - Unless dug in, they are vulnerable in open terrain to long-range direct fires.

A-4. LIGHT INFANTRY BRIGADE

Light infantry brigades have the most austere of the three light headquarters organizations in terms of communications capabilities and the number of staff officers. There is no assistant S3, assistant S3 air, or ALO. There are few vehicles in the main CP. Organizational maintenance is centralized at the brigade maintenance section. All Class I rations are prepared by the brigade mess team. Like the light infantry division, the brigade must depend on corps-level transportation assets. A key characteristic of the light infantry brigade is its limited antiarmor capability. There are 12 TOWs and 54 Javelins per brigade. In addition, the light infantry division has only one attack helicopter battalion and an air cavalry squadron.

A-5. AIRBORNE BRIGADE

Once it completes entry operations, the airborne brigade essentially functions as a light infantry brigade. It has more CS and CSS assets than does the light infantry brigade and has 60 TOWs and 54 Javelins. The airborne division has only one attack helicopter battalion and an air cavalry squadron.

A-6. AIR ASSAULT BRIGADE

Staff and CSS functions in the air assault brigade are similar to those in tank and mechanized brigades. The air assault brigade uses helicopters to extend its command and control and CSS capabilities. Antiarmor capability is the same as for the airborne brigade. The air assault division has a combat aviation brigade, consisting of three attack helicopter battalions and an air cavalry squadron, that adds to its antiarmor capability.

A-7. LIGHT INFANTRY BATTALION

The light infantry battalion is the most austere infantry battalion and the one whose organization is most different from that of an air assault, airborne, SBCT, or mechanized battalion. There are only three rifle companies and a headquarters company in the battalion. It has four TOWs and 18 Javelins. Organic fire support is provided by an 81-mm mortar platoon assigned to the headquarters company and two 60-mm mortars in each infantry company. Differences between this battalion and the air assault and airborne battalions are greatest in the organization of support and logistics elements. It has no trucks larger than its 27 cargo HMMWVs. The battalion has no mess team; Class I

is prepared at brigade level. There is only one mechanic in the entire battalion; repairs are conducted at the brigade level. The battalion has only 18 long-range radios.

A-8. AIR ASSAULT AND AIRBORNE BATTALIONS

Once inserted, the air assault and airborne battalions perform much like the light infantry battalion, using walking as a primary means of transportation. Each battalion has ten light medium tactical vehicles (LMTVs) and 36 cargo HMMWVs and can conduct nontactical movement by truck. Each battalion has a mess section and a 16-man maintenance platoon. Air assault and airborne battalions have 30 long-range radios and 20 TOWs and 18 Javelins. An 81-mm mortar platoon assigned to the headquarters company provides organic fire support.

A-9. LIGHT INFANTRY COMPANY

The light infantry company has three platoons and a headquarters section, for a total of 130 soldiers. The company headquarters contains both the antiarmor section, consisting of six Javelins, and the mortar section, which has two 60-mm mortars. The rifle platoons, with 34 soldiers each, are organized into three squads and a headquarters section that controls the platoon's machine guns. Each rifle squad consists of two fire teams.

A-10. AIRBORNE AND AIR ASSAULT COMPANIES

Airborne and air assault companies are capable of more independent action than their light infantry counterpart. Each of the three rifle platoons has its own weapons squad as well as three rifle squads. The weapons squads have both machine-gun crews and antiarmor missile crews. The company headquarters retains control of the 60-mm mortar section.

A-11. SPECIAL OPERATIONS FORCES MISSIONS, CAPABILITIES, AND LIMITATIONS.

Special forces are employed in many roles spanning the full spectrum of conflict.

a. **Missions.** The primary missions of the special forces are special reconnaissance, direct action, foreign internal defense, unconventional warfare, combat terrorism, and information operations.

b. **Capabilities.** Special forces have the capability to--

- Infiltrate and exfiltrate specified operational areas by air, land, or sea.
- Conduct operations in remote areas and non-permissive environments for extended periods of time with little external direction and support.
- Develop, organize, equip, train, advise, and direct indigenous military and paramilitary units/personnel.
- Train, advise, and assist US and allied forces.
- Conduct reconnaissance, surveillance, and target acquisition.
- Conduct direct-action operations that include raids, ambushes, sniping, emplacing of mines and other munitions, or providing terminal guidance for precision-guided missions.
- Conduct rescue and recovery operations.

c. **Limitations.** Special forces have the following limitations:

- They depend on the resources of the theater army to support and sustain operations.
- They cannot conduct conventional combined armed operations on a unilateral basis. Their abilities are limited to advising or directing indigenous military forces conducting this type of operation.
- They do not have organic combined arms capability. They habitually require the support or attachment of other combat, CS, and CSS assets.
- They cannot provide security for operational bases without severely degrading operational and support capabilities.

A-12.   THE UNTIED STATES ARMY SPECIAL FORCES OPERATIONS COMMAND (USASOC)

USASOC has four subordinate special operational forces elements that may operate in the AOR of the SBCT.

a. **Rangers.** The rangers are a special operations infantry organization. Their task organization and command and control structure are configured to support the unique demands placed on them by the specialized nature of the missions they are expected to perform. They have personnel capable of serving in the role of liaisons to the brigade headquarters in the event operations or mission requirements would dictate this, but an operation requiring direct employment of both ranger and SBCT forces in direct support of each other would be unusual. Ranger operations generally set conditions for follow-on conventional forces or are independent of conventional forces, focusing at objectives above the tactical level of warfare.

b. **Civil Affairs.** Civil affairs units establish, maintain, influence, or exploit relations between military forces and civil authorities (both government and non-government) and the civil populace in a friendly, neutral, or hostile area of operations in order to facilitate military operations and consolidate operational objectives. Civil affairs units are designed for employment independently, attached, OPCON, or tactical control (TACON) to other forces. At the SBCT, the most common element from a CA organization would be the civil affairs team (CAT). The CAT is structured to meet the immediate needs of the host nation populace by executing civil military operations in support of the overall plan. A civil affairs assessment team (CAAT) can also be sent down from the JSOTF or the ARFOR command element to make a determination of the needs within the SBCT AOR prior to, or in conjunction with, a CAT. The SBCT information officer of the IO element serves as the planner and advisor to the commander on how best to employ these assets. Civil affairs achieves a non-lethal effect and as such would be employed by the fires and effects coordination cell.

c. **Psychological Operations.** The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originator's objectives. A tactical PSYOP team (TPT) can operate independently, attached, OPCON, or TACON to the SBCT. A TPT generally focuses on the dissemination of PSYOP material that already exists. Early in a deployment, the SBCT may also see a tactical PSYOP development team (TPDT) working in its AOR or attached from the JSOTF or ARFOR headquarters. A TPDT aids in the development of themes for information campaigns and determines specific targeting for PSYOP efforts. PSYOP is also a non-lethal effect and a function of information operations; therefore, the SBCT information officer of the IO element serves

as the planner and advisor to the commander for employment of PSYOP elements under the control of the SBCT as part of the FECC.

　　d.　**Special Forces.** Special forces (SF) are employed in many roles spanning the full spectrum of conflict. The primary missions of the special forces are special reconnaissance, direct action, foreign internal defense, unconventional warfare, combating terrorism, and information operations. Special forces units bring with them unique capabilities that include language ability and cultural training. SF are capable of conducting operations that employ their own capabilities unilaterally as well as joint, combined, coalition, and indigenous force operations in support of the overall theater engagement strategy. Special forces operate on a tactical level to achieve strategic results. SF operations are inherently joint and frequently controlled by higher echelons, often with minimal involvement of intermediate HQ.

Section II. PLANNING CONSIDERATIONS

Employment of mechanized or SBCT and light forces requires thorough integration of the operating systems of all units. This section focuses on planning considerations for each of the seven operating systems.

A-13.　COMMAND AND CONTROL

The directing headquarters designates command relationships between the forces. The command relationship between units can be either attached or OPCON. A light unit attached to a mechanized or SBCT unit can normally be adequately supported. Attachment of a mechanized unit to a light or SBCT unit, however, requires considerable CS and CSS support from the mechanized unit's parent organization or from higher-level support assets.

　　a.　**Communications.** Light units normally have considerably less digital and long-range communications capability than mechanized or SBCT forces. The controlling unit must therefore thoroughly analyze the communications requirements of an attached light unit.

　　b.　**Liaison Officers.** Units normally exchange LNOs, who assist in joint operational planning, coordinate the development of orders and overlays, and serve as advisors to the counterpart units. In addition, leaders from the attached unit may be required to perform special functions in the different organizational configurations.

A-14.　INTELLIGENCE

Detailed intelligence is critical in integrating light infantry with tank and mechanized infantry forces. Light forces orient on concentrations of enemy units, including counterattack forces and artillery and air defense assets; they also focus on the enemy's infantry avenues of approach and LZs and PZs.

A-15.　MANEUVER

Either the light, mechanized, or SBCT force can fix the enemy, allowing the other force to maneuver. Whether it conducts the fixing operation or maneuver, the light force requires the advantage of restricted terrain. The following maneuver considerations apply during employment:

a. **Operational Tempo.** The differences between the operational tempo of light infantry and that of mechanized or SBCT forces are always a key consideration, as are rehearsal schedules. An early rehearsal may be required, both to allow units to take part jointly and to resolve the operational differences effectively.

b. **Employment.** Infantry is best suited to restricted and severely restricted terrain, where it can impede the enemy's mobility and nullify his ability to use long-range weapons and observation assets.

c. **Movement.** To help prevent detection, leaders should plan the movement to coincide with limited visibility conditions such as darkness, severe weather, smoke, or fog.

d. **Fires.** Direct and indirect fires should be mutually supporting during integrated operations. The SBCT and mechanized forces can use their long-range direct fires to provide suppression, allowing light infantry units to maneuver. Conversely, light infantry forces can provide overwatch or support by fire to the SBCT or mechanized forces, allowing tanks, Strykers, and BFVs to maneuver in restricted terrain.

e. **Infiltration.** SBCT and mechanized forces can assist infiltration of the light forces by augmenting security at the LD. They can use their thermal capability to scan the area for enemy forces and can provide direct fire support as necessary.

A-16. FIRE SUPPORT

The mechanized force must recognize that dismounted infantry operations focus on stealth, which might not allow for preparatory and other preliminary fires. Fire support available to each force must be integrated into the fire support plan. Planners must know the organizations, capabilities, and limitations of all forces involved, particularly their digital and nondigital capabilities. In addition, planners should consider the possibility of limited continuous fires support for the SBCT DS due to the artillery battalion's towed howitzers in heavy/Stryker force offensive operations. During planning and preparation, a liaison team helps synchronize fire support. Restricted fire control measures must be jointly developed and understood by everyone.

A-17. AIR DEFENSE

Air defense assets may be deployed to fight and provide protection within the scope and design of any organization. Because infantry forces frequently maneuver in restricted terrain, Avenger and Linebacker coverage may not be feasible. In such operations, man-portable Stingers should be allocated to support the infantry.

A-18. MOBILITY AND SURVIVABILITY

A common obstacle plan must be developed for all operations. Light and SBCT forces may be used to reduce obstacles and clear choke points for the mechanized forces. In breaching operations, SBCT and light forces must ensure the breach is large enough for the widest vehicle in the operation. Survivability remains the priority for light forces, which must prepare to take advantage of the engineer assets available to the mechanized forces and the engineer company organic to the SBCT.

A-19. NUCLEAR, BIOLOGICAL, AND CHEMICAL

The light force lacks decontamination equipment and is more limited in an NBC environment than the mechanized and SBCT forces. The need to carry protective clothing in addition to standard loads affects the mobility of the light force soldiers. When higher headquarters cannot provide transportation assets, planners should arrange for mechanized and SBCT force vehicles to help transport light-force NBC equipment. SBCT and mechanized battalions have water-hauling capabilities they can use to offset light-force shortfalls. Transporting these items with mechanized or SBCT assets reduces the load of light infantry units. Commanders must consider METT-TC and must plan linkup points to ensure the light unit obtains these critical items as it needs them.

A-20. COMBAT SERVICE SUPPORT

Light units are not organized, equipped, or trained to meet the support requirements of a mechanized or SBCT force. The light force relies on considerable assistance from the mechanized or SBCT support elements and from corps-level support assets. SBCT and mechanized units, however, should be able to provide support to a light infantry element. For a more detailed discussion of CSS considerations, refer to Section V of this appendix.

A-21. SPECIAL OPERATIONS FORCES PLANNING CONSIDERATIONS

The following are planning considerations for requesting direct support of SOF and linkup procedures.

a. **Request for SOF Support.** Commanders can request direct support of SOF from the unified command's special operations command (SOCOM). The SOCOM forms a joint special operations task force, as required.

b. **Special Forces Liaison Element (SFLE).** During the planning phase, an SOF liaison officer is assigned to the SBCT along with all communications assets necessary for immediate communications with SOF assets at JSOF headquarters and at the objective area. The SOF liaison officer and assets make up the SFLE. The signal operations instruction (SOI) and signal plan must standardize not only frequencies and call signs, but address visual signals as well as daylight and night operations.

- ARSOFT provides a special operations command and control element (SOCCE) to its supporting operational HQ. The SOCCE links with the SBCT through the SOF liaison officer in the SFLE.
- The SFLE coordinates with the SBCT S2/S3 sections, and both elements provide the current situation, commander's intent, and future operations of their respective forces (within OPSEC limits).
- The SOCCE provides SOF locations to the FECC and SBCT S3 section through personal coordination through the SFLE, overlays, and other friendly order of battle data.
- The SFLE requests appropriate restricted fire support coordination measures and provides time windows when these measures are to be effective. The SOCCE must also ensure that FECC dissemination of these measures does not result in OPSEC violations.

Section III. OPERATIONS

Employment of SBCT, mechanized, and light forces requires a thorough understanding of tactical employment of light forces during the conduct of the offense or defense. This section focuses on tactical employment of SBCT, mechanized, and light forces during combat operations.

A-22. OFFENSIVE OPERATIONS

The fundamentals, principles, and concepts discussed in Chapter 4 apply to SBCT and light infantry as well as to mechanized force offensive operations. While combining these forces in the offense can work in many different ways, the following are some of the most common examples:

   a. **Mechanized Force Support, Infantry Assault.** Tanks and BFVs support by fire while the infantry assaults the objective. The vehicles fire from hull-defilade positions until the infantry masks their fires. This is the most effective method for BFVs and may be used with tanks when antitank weapons or obstacles prohibit them from moving to the objective.

   (1) This method may incorporate a feint to deceive the enemy as to the location of the main effort. If so, the supporting effort is timed to divert the enemy's attention from the infantry's assault. The fires of the mechanized force may also cover the sound of the infantry's approach or breach. Close coordination is vital for effective fire control.

   (2) This method may vary when either the terrain or disposition of the enemy limits the mechanized force's ability to support the infantry's attack. In this case, the mechanized force may be tasked to suppress or fix adjacent enemy positions or to accomplish other tasks to isolate the objective area.

   b. **Simultaneous Assault.** With this method, SBCT, light, and mechanized forces advance together, and the infantry and vehicles move at the same speed. The vehicles may advance rapidly for short distances, stop and provide overwatch, then move forward again when the infantry comes abreast. Tanks are best suited to assault under fire. BFVs may also be used in this manner but only when the threat of antitank fires is small. Additionally, the armored protection provided by a Stryker vehicle is considerably less than that of a Bradley fighting vehicle. If an antitank threat exists, light or dismounted infantry usually leads while the vehicles follow to provide fire support.

   (1) This method may be used when the enemy situation is vague, when the objective is large and consists of both unrestricted and restricted terrain, or when visibility, fields of fire, and the movements of the mechanized force are restricted. These conditions exist during periods of limited visibility and in restricted terrain, such as in urban areas and wooded areas. The vehicles provide immediate close direct fires, and the dismounted infantry protects the vehicles from individual antitank measures.

   (2) This method sometimes requires infantry to follow a safe distance behind the tanks or BFVs or the SBCT's MGS for protection from frontal fires. This is true when the main enemy threat is small-arms fire. From behind the tanks, BFVs, or the MGS, the dismounted infantry can protect the flanks and rear of the vehicles from handheld antitank weapons.

   (3) This method may require assaulting forces to advance together in operations that require long, fast moves. Infantrymen may ride on the tanks or other vehicles until they make contact with the enemy. Although this is a quick way to move, it exposes the light

infantry to enemy fire, particularly airburst munitions, and may interfere with the operation of the Strykers, BFVs, and tanks.

c. **Assault from Different Directions.** Mechanized and light forces converge on the objective from different directions. SBCT or mechanized and light infantry forces advance by different routes and assault the objective at the same time. For this synchronization to succeed, the light infantry elements maneuver and close on their assault position, ideally under cover of darkness or poor weather. The synchronization of the assault provides surprise, increases fire effect, and maximizes shock action. Planning, disseminating, and rehearsing the coordination of direct and indirect fire measures are critical in this type of operation.

(1) This method is effective when using tanks and BFVs and when two conditions exist:

- First, terrain must be at least partly unrestricted and free from mines and other armored vehicle obstacles.
- Second, supporting fires and smoke must effectively neutralize enemy antitank weapons during the brief period required for the tanks and or BFVs to move from their assault positions to the near edge of the objective.

(2) This method requires coordination of infantry and mechanized forces to provide effective fire control on the objective. When conditions prohibit the mechanized force vehicles from advancing rapidly, infantry should accompany them to provide protection.

A-23. EXPLOITATION

Exploitation follows success in battle. The mechanized force is usually the most capable exploitation force. It takes full advantage of the enemy's disorganization by driving into his rear to destroy and defeat him. A mechanized force operating as a team (BFV- and tank-equipped units) may exploit the local defeat of an enemy force or the capture of an enemy position. The purpose of this type of operation is to prevent reconstitution of enemy defenses, to prevent enemy withdrawal, and to secure deep objectives. A common combination is a mechanized battalion reinforced by an attached SBCT or light infantry unit, engineers, and other supporting units. The light infantry may be transported in armored vehicles or trucks or may ride on the tanks. Riding on tanks reduces road space, decreases supply problems, and keeps the members of the team together; however, it exposes the riding infantry to enemy artillery fire. The light infantry leaders ride with the corresponding tank or BFV unit commanders. The mechanized force battalion commander must weigh the likelihood of enemy contact against the need for speed.

A-24. DEFENSIVE OPERATIONS

The combination of SBCT, light infantry, and mechanized forces is well suited to conduct defensive operations. The SBCT infantry battalion or mechanized force provides a concentration of antiarmor weapons and the capability to counterattack by fire or maneuver rapidly. The light force can occupy strongpoints, conduct spoiling attacks, and conduct stay-behind operations. The fundamentals, principles, and concepts discussed in Chapter 5 apply to combined light and mechanized force defensive operations.

a. **SBCT or Light Force in Depth, Mechanized Force Forward.** The mechanized unit covers forward of a light unit's defense, masking the location of the light unit. While passing through the SBCT or light unit's positions, mechanized units provide most of

their own overwatch protection. Careful planning is required for battle handover to the SBCT or light unit. Light unit direct fire overwatch weapons that are able to support from inside the battle handover line are scarce. To solve this problem, the mechanized force can provide some of its antiarmor assets to the light infantry. Usually, these assets are provided at company level and above.

b. **Light Force Forward, SBCT or Mechanized Force in Depth.** The SBCT or mechanized force assumes positions in depth behind the light unit's defense. The light unit's forward deployment shapes the battlefield for decisive action by the SBCT or mechanized forces. The light unit leaves an avenue of approach into the SBCT or mechanized force's engagement area. At the same time, the light unit prevents the enemy from using restricted and severely restricted terrain. If the enemy penetrates the light unit, the SBCT or mechanized force counterattacks, destroying the enemy or blocking him until additional units can be repositioned to destroy him. To support the counterattack, the light unit identifies the location of the enemy's main effort, slows his advance, and destroys his command, control, and CS elements. The light unit can guide the counterattacking force through restrictive terrain to surprise the enemy on his flank.

c. **SBCT or Light Force Terrain-Oriented, Mechanized Force Enemy-Oriented.** Terrain-oriented refers to area defense; enemy-oriented refers to mobile defense. With this method, the entire force defends along the FEBA. The SBCT or light force, whether used as a flanking or covering force or positioned in depth, places its elements to use restrictive terrain effectively. The mechanized force keeps its freedom of maneuver. To protect the SBCT or light unit, contact points between units should be in restrictive terrain. The SBCT or light unit may defend to hold terrain while the tanks and BFVs maneuver to destroy the enemy from the flanks or rear.

d. **Strongpoint.** The SBCT infantry battalion or light infantry unit, with additional assets, occupies a strongpoint. The strongpoint forces the enemy into the mechanized force's engagement area.

e. **Stay-Behind Operations.** The SBCT or light unit occupies hide positions well forward of the FEBA. As the enemy passes, the light force attacks the enemy's command, control, CS, or CSS elements. The mechanized force defends against enemy maneuver forces.

A-25. RETROGRADE OPERATIONS

Retrograde operations include delays, withdrawals, and retirements, which gain time and avoid decisive action. Mechanized forces are employed against the enemy forces and avenues of approach that most threaten the operation. To move to subsequent positions, light forces need additional transportation assets, including helicopters. Basic movement techniques include bounding and bounding overwatch. Mechanized forces with small light force units mounted, along with infantry reconnaissance platoons and antitank elements, move to subsequent delay positions under the cover of mutually supporting forces.

A-26. SPECIAL FORCES OPERATIONS

Under the control of SOF headquarters, special forces, rangers, and special operations aviation can conduct combat operations against high-value targets.

a. **SOF and SBCT Operations.** SOF may operate with the SBCT or within the SBCT AO. Physical contact between the SBCT infantry battalion and SOF is typically short term. It usually ends with a passing of responsibility, the passage of friendly lines, or the extraction of SOF. The focus, therefore, should be on synchronization (not physical integration) of SBCT and SOF on the ground. Synchronization involves the simultaneous or sequenced execution of separate actions in time and space to achieve a synergistic effect.

b. **Linkup.** SOF and the SBCT infantry battalion conduct operations in war or stability oprations or support operations that may require a linkup. Linkup operations are often one of the most difficult operations to conduct because of the differences in the SOPs of the units conducting linkup. As linkup becomes imminent, coordination and control are intensified. The SBCT infantry battalion and the SOF element conducting linkup must adhere to emplaced control measures to ensure successful operations and to prevent fratricide. The two types of linkup operations are physical linkup operations and communications linkup operations.

(1) *Physical Linkup Operations.* Physical linkup operations occur when the SBCT infantry unit(s) linkup with and establish physical contact with a deployed SOF element or a resistance element, if applicable (as in an unconventional war (UW) scenario). During war in a joint special operations area (JSOA) or region, a physical linkup occurs at a specified contact point. Duringstability operations and support operations, a physical linkup may occur in the rear area, JSOA, or AO. A physical linkup is the most difficult to plan, conduct, and control effectively. It requires detailed, centralized coordination and planning at a planning conference between the SBCT forces, the SOCCE, and the deploying SOF element, if available. Physical linkups are conducted--

- In any instance where the SBCT infantry battalion operation requires physical interaction with an SOF unit already deployed or deploying into the same AO for operations.
- For resupply and logistics.
- For intelligence.
- For exfiltration of the sick and wounded.
- For exfiltration of very important people and prisoners of war.
- For infiltration of U.S. and resistance replacements.
- For coordination and planning.
- When transferring guides and liaisons to the SBCT infantry battalion.

(2) *Communications Linkup Operations.* Communications linkup operations take place when operations are conducted between SBCT forces and deployed SOF elements and a physical linkup is not required or desirable. A communications linkup requires coordination between all linkup forces. It also requires compatible communications equipment and current SOI. The SOI must be exchanged at a planning conference. Whenever possible, all linkup forces must rehearse the SOI, complete their planning, and implement coordinating instructions NLT 24 hours before the start of the linkup operations. Communications linkups may take place when the SBCT conducts--

- Offensive operations, and an SOF element already in the AO or the resistance force functions as a blocking or screening force.
- A raid, and an SOF element already deployed or the resistance force conducts security missions.

- Offensive operations, and an SOF element already deployed or the resistance force conducts deception operations.
- Offensive operations, and an SOF element already deployed or the resistance force conducts tactical reconnaissance and surveillance of the intended conventional force target.

Section IV. ADDITIONAL OPERATIONAL CONSIDERATIONS

The following additional considerations apply in SBCT/light/mechanized operations.

A-27. DISMOUNTED INFANTRY MOVEMENT RATES

Commanders of mechanized forces often overestimate (or simply fail to recognize) the speed with which light infantry or SBCT infantry can move when operating dismounted. Numerous factors can affect the rate of march for the infantry forces: tactical considerations, weather, terrain, march discipline, acclimatization, availability of water and rations, morale, individual soldiers' self-confidence, and individual loads. Table A-2 summarizes dismounted rates of march for normal terrain. The normal distance covered by a dismounted force in a 24-hour period is from 20 to 32 kilometers, marching from five to eight hours at a rate of 4 kph. A march in excess of 32 kilometers in 24 hours is considered a forced march. Forced marches increase the number of hours marched, not the rate of march, and can be expected to impair the unit's fighting efficiency. Absolute maximum distances for dismounted marches are 56 kilometers in 24 hours, 96 kilometers in 48 hours, or 128 kilometers in 72 hours.

	ROADS	CROSS-COUNTRY
Day	4.0 kph	2.4 kph
Night	3.2 kph	1.6 kph

Table A-2. Dismounted rates of march (normal terrain).

A-28. TANK MOUNTED INFANTRY

An additional maneuver consideration for a light/mechanized or mechanized/light operation is the decision of whether to move infantrymen on tanks. This mode of transportation can be difficult but is not impossible. It does, in fact, afford some significant advantages. The mounted infantry can provide additional security for the company. When the team conducts a halt or must execute a breach or other tactical tasks, infantry assets are readily available to provide support and security. The commander must weigh the potential dangers of carrying tank-mounted infantrymen against the advantages of mobility and security they can provide. For specific procedures and safety considerations involved in mounting infantry on tanks, refer to FM 17-15.

A-29. SAFETY CONSIDERATIONS

Initially, most infantrymen are not familiar with the hazards that may arise during operations with tanks, BFVs, and other armored vehicles. The most obvious of these include the dangers associated with main-gun fire and the inability of armored vehicle crews to see people and objects near their vehicles. Leaders must ensure that soldiers understand the following points of operational safety.

a. **Discarding Sabot.** Tank sabot rounds and BFV antipersonnel rounds discard stabilizing petals when fired, creating a downrange hazard for infantry. The aluminum petals of the tank rounds are discarded in an area extending 70 meters to the left and right of the gun-target line, out to a range of 1 kilometer. The danger zone for BFV rounds extends 30 degrees to the left and right of the gun-target line, out to 200 meters from the vehicle. Infantrymen should not be in or near the direct line of fire for the tank main gun or BFV cannon unless they are under adequate overhead cover.

b. **Noise.** Tank main guns create noise in excess of 140 decibels. Repeated exposure to this level of noise can cause severe hearing loss and even deafness. In addition, dangerous noise levels may extend more than 600 meters from the tank. Single-layer hearing protection such as earplugs allows infantrymen to work within 25 meters of the side or rear of the tank without significant hazard.

c. **Ground Movement Hazards.** Crewmen on tanks and BFVs have very limited abilities to see anyone on the ground to the side or rear of the vehicle. As a result, vehicle crews and dismounted infantrymen share responsibility for avoiding the hazards this may create. Infantrymen must maintain a safe distance from armored vehicles at all times. In addition, when they work close to an armored vehicle, dismounted soldiers must ensure that the vehicle commander knows their location at all times.

NOTE: A related hazard is that M1-series tanks are deceptively quiet and may be difficult for infantrymen to hear as they approach. As noted, vehicle crews and dismounted infantrymen share the responsibility for eliminating potential dangers in this situation.

d. **M1 Exhaust Plume Hazard.** M1-series tanks have an extremely hot exhaust plume that exits from the rear of the tank and angles downward. This exhaust is hot enough to burn skin and clothing.

e. **TOW Missile System.** The TOW missile system has a dangerous area extending 75 meters to the rear of the vehicle in a 90-degree "cone." The area is divided into a 50-meter danger zone and a 25-meter caution zone

Section V. CSS OPERATIONS

CSS planning and execution are critical elements for integration of SBCT, light, and mechanized forces. Light brigades are not organized, equipped, or trained to meet the support requirements of a mechanized company. The SBCT is not structured to provide maintenance support to a mechanized unit. The SBCT can provide limited Class V (.50 cal and 7.62 mm) and Class III support. CSS may be further complicated if the mechanized force is operating across a large geographical area to meet the demands of a decentralized mission. The following discussion covers CSS considerations that may affect light/mechanized and mechanized/light operations.

A-30. PLANNING AND INTEGRATION

SBCT/light/mechanized operations may require the mechanized team to integrate into the SBCT or light brigade organization early in the deployment phase. This, in turn, may require CSS assets to move into the theater of operations very early as well, usually at the same time as the command and control elements. Specific support requirements,

including needed quantities of supplies, depend on the mission and must be planned and coordinated as early as possible. In addition, because the SBCT or light brigade does not possess the required logistical redundancy to sustain the mechanized company, it is imperative that mission requirements calling for division- or corps-level CSS assets be identified early in the planning process.

A-31. SUPPLY REQUIREMENTS

Operations with a light brigade create many unique supply considerations for the SBCT or mechanized battalion. The sheer bulk and volume of supplies required by an SBCT infantry battalion and a mechanized battalion merit special attention during the planning and preparation phases. The following paragraphs examine some of these supply-related considerations.

a. **Class I.** Class I food requirements are determined based on the unit's personnel strength reports. This process may be complicated by unique mission requirements imposed on the unit, such as rapid changes in task organization or dispersion of subordinate companies over a wide area.

b. **Class II.** Many Class II items required by Stryker, tank, and BFV crews, such as specialized tools and Nomex clothing, may be difficult to obtain in a light organization. Although such items can be ordered through normal supply channels, the mechanized battalion may face significant delays in receiving them. To overcome this problem, the SBCT or mechanized battalion should identify any potential shortages and arrange to obtain the needed supplies before leaving its parent organization.

c. **Class III.** The fuel and other POL products required by the SBCT or mechanized battalion are extremely bulky; they present the greatest CSS challenges in planning and preparing for light/mechanized operations. Transportation support must be planned carefully. For example, planners must consider the placement of fuel HEMTTs during all phases of the operation. They must also focus on general-use POL products, such as lubricants, that are not ordinarily used by the light brigade. As noted previously, the mechanized battalion should stock its basic load of these items, as well as make necessary resupply arrangements, before attachment to the light brigade.

d. **Class IV.** The SBCT or mechanized battalion does not have any unique requirements for barrier or fortification materials. The main consideration is that any Class IV materials that the commander wants may have to be loaded and carried prior to attachment.

e. **Class V.** Along with POL products, ammunition for the mechanized force presents the greatest transportation challenge during combat operations. Planning for Class V resupply should parallel that for Class III; key considerations include anticipated mission requirements and the availability of HEMMTs. Ammunition may be prestocked based on expected consumption rates.

f. **Class VI.** There are no unique requirements for personal demand items and sundries.

g. **Class VII.** Class VII consists of major end items, such as "float" Strykers, tanks, or BFVs. The handling of these items requires thorough planning to determine transportation requirements and positioning in the scheme of the operation.

h. **Class VIII.** There are no unique requirements for medical supplies.

i. **Class IX.** Repair parts for combat vehicles are essential to the sustainment of the mechanized force. Repair parts stockage levels must be carefully considered before operations begin. SBCT and mechanized forces may find it advantageous to prestock selected items to meet anticipated needs.

A-32. OPERATIONAL CONSIDERATIONS

An SBCT or mechanized unit can satisfy the CSS needs of a light infantry unit more easily than an infantry brigade can satisfy the needs of a SBCT or mechanized battalion.

a. **SBCT and Mechanized Battalion with Light Infantry Company.** Except for mortar rounds, the SBCT or mechanized battalion can provide all munitions the light infantry company needs. The S4 must plan to receive and move 120-mm, 81-mm, or 60-mm mortar munitions.

b. **Infantry Brigade with SBCT or Mechanized Battalion.** Adding an SBCT or mechanized battalion to a light infantry brigade significantly increases the fuel, ammunition, and maintenance that must be delivered to the forward area support team or the forward support battalions. The light infantry brigade lacks the transportation required to support even a small SBCT or mechanized unit, particularly the HETs for armored vehicle evacuation. The SBCT or mechanized battalion S4 must constantly anticipate the battalion's needs to allow the light infantry brigade S4 more time to react. Support packages may be required for the SBCT or mechanized element that is attached or under OPCON of the light force. The preferred method of command relationship is OPCON, which permits the SBCT or mechanized battalion to continue receiving support from its BSB or FSB. The support package may need to include fuel, HEMTTs and operators, HETs with drivers, tracked ambulances, and maintenance support teams.

APPENDIX B

COMMAND POST OPERATIONS

Echeloned command and control facilities control battalions with varying levels of staff participation at each echelon. The battalion command group operates forward and consists of the commander and those selected to go forward to assist in controlling maneuver and fires during the battle. The command group normally includes the FSO and ALO but there is no requirement for these people to collocate. For example, the commander may be in one part of the battalion sector while the S3 is in a separate part of the sector. The commander determines the composition, nature, and tasks of the command group based on METT-TC analysis. As a minimum, the command group--

- *Synchronizes combat assets in support of close operations.*
- *Controls close operations.*
- *Maintains the current operational situation.*
- *Provides close situation information to the main CP.*

The commander and S3 monitor the battle, develop the situation, analyze courses of action, and control the companies.

Section I. COMMAND AND CONTROL FACILITIES

Battalion command and control facilities consist of the vehicles and locations from which the battalion commander, assisted by his staff, directs the battle and sustains the force. These facilities include the main command post, the tactical command post, and the combat trains command post.

B-1.   COMMAND POST SURVIVABILITY

CP survivability depends mostly on concealment and mobility. The best way to protect a CP is to prevent the enemy from detecting it. Good camouflage and proper noise, light, and signal discipline enhance the security provided by a good location.

a.   **Location.** The best place for CPs is in built-up areas. When necessary, a CP not in a built-up area should be located 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 communications with higher, lower, and adjacent units.
- Avoiding redundancy of communications.
- Masking signals from the enemy.
- Using terrain for passive security (cover and concealment).
- Collocating with tactical units for mutual support and local security.
- Avoiding possible enemy TRPs for enemy artillery and CAS.
- Locating the CP near an existing road network out of sight from possible enemy observation.

b.   **Access.** CPs should be centered in the area of operations whenever possible. They should be near, but not next to, a high-speed avenue of approach with no more than one or two routes leading into the CP. These routes should provide cover, concealment, and

access to other routes of communication. When possible, a helicopter landing zone should be nearby.

c. **Size**. The area selected must be large enough to accommodate all CP elements. This includes liaison teams from other units; communications support; and eating, sleeping, latrine, and maintenance areas. Sufficient area must be available for positioning security and vehicle dismount points and parking.

d. **Shelter.** Dryness and light are vital when working with maps and producing orders and overlays. CPs should be sheltered from weather conditions and should have lights for night work (exercising proper light discipline.) Buildings are the best choice but if none are available, CPs operate from their organic vehicles or tents.

e. **Operational Security.** OPSEC considerations for positioning CPs include the following:

(1) There should be no signs advertising CP locations. Disperse CP vehicles and thoroughly camouflage all vehicles and equipment. Maintain noise and light discipline.

(2) A security force is required, and it must have communications with the CPs. Establish security force positions as in any defensive position, with a 360-degree perimeter and far enough out to prevent enemy fires on the CPs. The security force should have antitank weapons to protect CPs from enemy armor. Establish a reserve reaction force and rehearse the execution of the perimeter defense.

(3) Battalions normally rely on off-duty personnel for CP security. The command group may assist in securing a CP if collocated. Units may rarely be able to employ combat elements to help secure a CP.

(4) In general, positioning C2 assets off major enemy mounted avenues of approach reduces the enemy threat. Position CPs so the enemy bypasses them.

(5) An OP should secure any remote antennas located outside the perimeter.

(6) All subordinate units and elements of the CP must receive near and far recognition signals. The CP uses these signals, challenges, and passwords to control access into its perimeter.

(7) 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.

B-2. DISPLACEMENT

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

a. A portion of the CP, called a jump CP, moves to the new location, sets up operations, and takes over operational control of the battle from the main CP. The remaining portion of the CP then moves to rejoin the jump CP. The jump CP consists of the necessary vehicles, personnel, and equipment to assume CP operations while the remainder moves. At battalion level, the jump CP normally comes from within the main CP.

b. The XO or S3 selects a general location for the jump CP site. The jump CP can be accompanied by a quartering party, which may consist of a security element and personnel and equipment for quartering the remainder of the CP. The signal officer, who is usually part of the quartering party, ensures communications on all nets are possible

from the new site. When the jump CP becomes operational, it also becomes the net control station for the unit. The remainder of the CP then moves to rejoin the jump CP.

    c. Another technique is to hand off control to the command group and move the main CP as a whole. The command group can also split, with the commander moving with the main effort and the S3 moving with the supporting effort.

Section II. COMMAND POST OPERATIONS

Each CP must be organized to permit continuous operations and the rapid execution of the command and control process. SOPs for each CP should be established, known to all, and rehearsed. These SOPs should include--

- The organization and setup of each CP.
- Plans for teardown and displacement of the CP.
- Eating and sleeping plans during CP operations.
- CP shift manning, shift changes, and operation guidelines.
- Physical security plans for the CP.
- Priorities of work during CP operations.
- Loading plans and checklists.
- Orders production.
- Techniques for monitoring enemy and friendly situations.
- Posting of CP map boards.
- Maintenance of CP journals and logs.

B-3.   COMMUNICATIONS

Command posts monitor communications nets, receive reports, and process information to satisfy commander needs or CCIR. This information is maintained on maps, charts, and logs. Each staff section maintains daily journals to log messages and radio traffic.

B-4.   MAPS

CPs maintain information as easily understood map graphics and charts. Status charts can be combined with situation maps to give commanders friendly and enemy situation snapshots for the planning process. This information must be updated continuously.

    a. For simplicity, all map boards should be the same size and scale, and overlay mounting holes should be standard on all map boards. This allows easy transfer of overlays from one board to another.

    b. The following procedures for posting friendly and enemy information on the map will aid commanders and staff officers in following the flow of battle.

    (1) All graphics should be posted on an overlay. Friendly and enemy unit symbols should be displayed on clear acetate placed on the operations overlay. These symbols can be marked with regular stick cellophane tape or with marking pen.

    (2) The exact unit location is indicated by the center of mass of the symbol.

    (3) Units normally keep track of subordinate units two levels down. This may be difficult during the conduct of combat operations. It may be necessary to track locations of immediate subordinate units instead.

B-5. THE BATTLE CAPTAIN

The CP staff focuses on collecting the critical information the commander needs to fight the battle. Information flow is a constant problem in most CPs, especially since everyone in the CP must maintain a common operating picture. The battle captain's role is to plan, coordinate, supervise, and maintain communication flow throughout the CP to ensure the successful accomplishment of all assigned missions. The CP battle captain assists the commander, XO, and S3 by being the focal point in the CP for communications, coordination, and information management. The battle captain is also the CP officer in charge (OIC) in the absence of the commander, XO, and S3.

a. The battle captain has the overall responsibility for the smooth functioning of the CP facility and its staff elements. This range of responsibility includes--

- Maintaining continuous operations of the CP while static and mobile.
- Battle-tracking the current situation.
- Ensuring communications are maintained with and between all stations and that all messages and reports are routed and logged per SOP.
- Assisting the XO with coordination of CP staff functions to ensure a smooth and continuous information flow between the staff sections of the CP.
- Processing essential data from the incoming flow of information to ensure all tactical and logistical information is gathered and provided to the CP staff, S3, and XO on a regular basis.
- Providing security for the CP, including its physical security and maintenance of noise and light discipline.
- Ensuring mobility of the CP, including configuration, equipment, and training, to facilitate rapid movement.
- Conducting CP battle drills and enforcing CP SOP.

b. The battle captain ensures all staff elements in the CP understand their actions in accordance with SOP and provides coordination for message flow, staff briefings, updates to CP charts, and other coordinated 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 commander, XO, and S3.

c. Information management in the CP can include processing journals, message forms, reports, FRAGOs, and requests for information. The battle captain ensures the consistency, accuracy, and timeliness of information leaving the CP, including preparing and dispatching FRAGOs and warning orders. In addition, he monitors and enforces the updating of charts and status boards necessary for battle management and ensures this posted information is timely, accurate, and accessible.

d. To function effectively, the battle captain must have a working knowledge of all elements in the CP, understand unit SOP, and ensure the CP staff uses them. He 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 his decision-making and action authority.

e. The battle captain must be integrated into the decision-making process and know why certain key decisions were made. He must know the technical aspects of the battle plan and understand the time-space relationship to execute any specific support task. He must understand and enforce the battle rhythm--the standard events or actions that happen during a normal 24-hour period--and ensure the CP staff is effective throughout the

period. Battle captains use their judgment to adjust CP activities and events to accomplish the CP mission across different shifts, varying tactical circumstances, and changes in CP location.

Section III. COMMUNICATION

Communication is the means through which command and control is exercised. Soldiers throughout the organization must know the chain of command and succession of command. There must be open lines of communications up, down, and laterally. The commander should--

- Provide for redundancy in communications means by having backup at key locations.
- Make sure subordinates know what to do during interruptions in communications. Ensure SOPs specify immediate actions in case of jamming, including prearranged frequencies to switch to and code words.
- Avoid overloading the communications systems. Use them only when necessary. Practice disciplined communications procedures by eliminating nonessential conversations.

B-6. RESPONSIBILITIES

The order of responsibilities for communications is--

- Senior to subordinate.
- Supporting to supported.
- Reinforcing to reinforced.
- Passing to passed (for forward passage of lines).
- Passed to passing (for rearward passage of lines).
- Left to right.
- Rearward to forward.

All units take immediate action to restore lost communications. These responsibilities apply to establishing liaison between headquarters.

B-7. MEANS OF COMMUNICATION

Wire is the primary means of communication when the situation permits. Other means include couriers, sound and visual signals, telephones, and radios.

a. **Wire.** Wire is normally used for internal communications in the CP area, assembly areas, and defensive positions. Wire takes more time to plan, install, and recover but provides reliable communication if time and the tactical situation permit its installation.

b. **Courier.** Couriers are used between C2 facilities and between higher and lower headquarters. Couriers are slower and more vulnerable than other means of communications but can be used when other means cannot be used. When authorized, motorcycle messengers can be used between the CP, trains, higher headquarters, and companies. Messengers should be instructed on destruction procedures to prevent enemy capture of messages.

c. **Sound and Visual.** Sound and visual signals may be included in unit SOPs. Sound signals include metal-on-metal, vehicle horns, whistles, and bells. Visual signals include lights, flags, arm-and-hand signals, and pyrotechnics.

d. **Telephone Lines.** Commercial telephone lines can be used with permission of higher headquarters. If used, it should be assumed the enemy can monitor all calls made using commercial telephone lines.

e. **Radio.** Radio should not be the primary means of communication until after the unit makes contact.

B-8.   COMMUNICATIONS SECURITY

The commander must understand the capabilities, limitations, and vulnerabilities of the CP communications systems and ensure the employment of effective communications control and security as an essential function of command post operations.

a. **Radio Transmissions.** Radio transmissions should be brief to reduce the EW signature. Using secure operational and numerical codes reduces the chance of enemy detection. Use low-power transmissions and terrain to mask signals from enemy direction-finding equipment. Use couriers or wire for lengthy messages. Units must practice using SOP and operational terms.

b. **Physical Security**. Physical security protects cryptographic systems and classified documents from capture or loss. Before vacating an area, inspect it for any materials that could provide friendly information to the enemy. Patrol wire lines to prevent enemy tapping. When cryptographic equipment is lost or captured, report the facts promptly to the next higher command. The unit SOP must contain instructions for destruction of equipment and classified documents to prevent their capture or use by the enemy.

Section IV. COMMUNICATION SYSTEMS

Communications is the means by which the commander projects his command and control across the width and depth of the battlefield. The Army command and control system encompasses all Army communications and consists of the following subordinate systems: Army global command and control system (AGCCS) at the operational/theater level and the ABCS at echelons corps and below (ECB). Communications currently available to the battalion fall under one of the subsets of the ABCS:

- Combat net radio.
- Army common user system (ACUS).
- Army data distribution system (ADDS).

B-9.   COMBAT NET RADIO

The primary means of communication for the maneuver battalion is CNR. This family of push-to-talk radios includes SINCGARS, improved high frequency radio (IHFR), and single-channel TACSAT radios.

a. **SINCGARS.** SINCGARS is the primary means of communications available to the battalion. Although primarily a voice transmitter, SINCGARS can also be used to pass limited data transmissions. The planning range for this system is a maximum of ten kilometers dismounted and 35 kilometers mounted. The range can be extended through use of retransmission equipment or antennas such as the OE-254. SINCGARS, through CNR, can provide access into the ACUS via the KY-90 combat net radio interface (CNRI). The KY-90 is installed on the battlefield by the signal battalion. The SINCGARS radio nets typically installed by a battalion are command and control,

intelligence, and administrative/logistical. The battalion also enters and monitors nets established by its higher headquarters. When establishing SINCGARS nets for CP operations, remoting the antennas limits the enemy's ability to direction-find the CP location.

b. **Improved High Frequency Radio.** Using IHFR provides a versatile capability for short- and long-range communications and provides longer range than SINCGARS. HF is the only tactical communications asset that may achieve long-range communications independent of terrestrial or satellite relays. HF is also useful where LOS cannot be achieved. HF communications may be either voice or secure data, but the distribution of this equipment is limited to one or two sets per battalion. Radio remains the most detectable means of electronic communications and is subject to both intentional and unintentional electronic interference.

c. **Tactical Satellite.** The use of satellite communications gives the commander the greatest range. The TACSAT radio transmits in the UHF/VHF range, requiring the antenna to have LOS with the satellite. Satellite access time must be requested in advance of use.

B-10. ARMY COMMON USER SYSTEM

Mobile subscriber equipment (MSE) provides the ACUS at ECB. Signal battalions install the backbone node centers (NCs) while small extension nodes (SENs) and radio access units (RAUs) provide access for the maneuver unit.

a. **Mobile Subscriber Radio Telephone.** The MSRT is the primary MSE equipment available to the battalion. It consists of a VHF radio and a digital secure voice telephone (DSVT). The MSRT automatically selects random channels for each call and chooses the lowest effective radio frequency transmit level. The MSRT can be installed in a vehicular configuration, remote from the vehicle, or in a stand-alone mode when used with an appropriate power supply. The MSRT must be within 15 kilometers of a RAU site to communicate. Distribution in a battalion is usually limited to two or three MSRTs.

b. **Digital Voice Nonsecure Telephone (DVNT).** The DVNT is a four-wire nonsecure telephone terminal that requires collocation with a SEN to connect to the MSE network. The SEN provides connection to the tactical packet network (TPN) for the battalion computers. Using the TPN allows the battalion to connect commercial computers or Army systems (warlord or maneuver control system) to the MSE network. Typically, battalion operations do not include task organization of a SEN for battalion use. The field trains command post (FTCP) located in the BSA is usually the first SEN access available to a battalion.

B-11. THE DIGITAL BATTLEFILED

As the Army enters the 21st century, digital communications upgrades will change the nature of operations at the battalion level. The information battlefield will see rapid dissemination of products up and down the chain of command and to adjacent units. The Army will share a common picture of the battlespace regardless of task organization. Emerging doctrine has redefined the ABCS as the integration of six functional area control systems that provide situational information and decision support.

a. The principal automation components of the ABCS at the battalion level are--

- Maneuver control system-light.
- Advanced field artillery tactical data system.
- Forward area air defense command, control, computers, and intelligence.
- All-source analysis system.
- Combat service support control system.
- Force XXI battle command brigade and below.

b. The principal communication components of the ABCS are--

- EPLRS.
- NTDR.
- CNR SINCGARS system improvement plan (SIP).
- MSE TPN.

B-12. TACTICAL INTERNET

The TI is a collection of interconnected tactical radios and computer hardware and software providing seamless C2 INFOSYS data exchange between maneuver, CSS, and C2 INFOSYS platforms. The TI's primary function is to provide a more responsive information exchange capability to support battle command at brigade level and below.

a. The TI consists of FBCB2 computers, the EPLRS very high speed integrated circuits (VHSIC), the SINCGARS SIP, and other supporting communications equipment. It is an automated, router-based communications network using commercial Internet standard protocols to move data vertically and horizontally through the SBCT area and to higher-level echelons using the MSE TPN. Automated network management tools in the maneuver battalion provide TI planning, monitoring, and reconfiguring capabilities.

b. The TI is divided into two sub-areas: autonomous systems and routing areas. Typically, a battalion represents one autonomous system. An autonomous system is a collection of networks, under a common administration, that shares a common routing strategy. An autonomous system can consist of one or many networks, and each network may or may not have an internal structure. A routing area is a network in an autonomous system. Routing areas and the autonomous system to which they belong share the same routing strategy.

B-13. FORCE XXI BATTLE COMMAND BRIGADE AND BELOW

The FBCB2 hardware is a mix of commercial, ruggedized, and militarized computers installed in vehicles at brigade level and below or issued to individuals as dismounted soldier system units (DSSUs). When available, the FBCB2 can be connected to the GPS and other embedded platform interfaces. FBCB2 is common to all aspects of the digitized battlefield; selected individuals in all platoons and companies have one. They are in most C2 INFOSYS platforms and CPs. The FBCB2 system has five configurations or versions:

- FBCB2, Version 1 (V1): Commercial off-the-shelf notebook computer.
- FBCB2, V2: Ruggedized computer.
- FBCB2, V3: Militarized computer.
- DSSU: Militarized computer.
- Position Navigation Device: Militarized computer.

a. FBCB2 uses the variable message format (VMF) to send and receive messages horizontally and vertically on the battlefield, irrespective of task organization. VMF improves current configurations in which the BOS automation systems do not

communicate to each other. Digitization provides communication and processing capabilities to the Warfighter, which yields significant advantages in two key areas.

(1) *Situational Understanding.* Situational understanding is a state of understanding gained from knowledge based on accurate and real-time information of friendly, enemy, neutral, and noncombatant locations. It consists of a common, relevant picture of the battlefield scaled to specific levels of interest and needs.

(2) *Command and Control.* C2 is direction by a commander over assigned forces in accomplishing a mission. A commander employs C2 functions as he plans, directs, and controls forces and operations to accomplish a mission.

b. FBCB2 provides each echelon with the COP two echelons up and down and one adjacent unit left and right. FBCB2 significantly improves the effectiveness of the force.

(1) FBCB2 provides up-to-date combat situation information based on echelon and location of--

- Friendly and enemy positions.
- Air and ground unit positions.
- Maps, terrain, and elevation.

(2) FBCB2 provides rapid generation and dissemination of messages and acknowledgments of--

- Orders and requests.
- Fires and alerts.
- Reports.
- Overlays on the situation picture.
- Semiautomatic exchange of selected mission-critical data between the FBCB2 and the ABCS component systems.

c. For each task reorganization, FBCB2 hosts affected by the task reorganization must receive new initialization data. Transfer of the modified initialization data to the ultimate users occurs through signal channels.

B-14. ENHANCED POSITION LOCATION REPORTING SYSTEM WITH VERY HIGH SPEED INTEGRATED CIRCUITS

Battalion C2 INFOSYS platforms employ EPLRS VHSIC as their primary data communications link to company and platoon platforms. It serves as a position location, navigation, identification, and communications system. Its primary components are the NCS and the radio sets. The NCS is the centralized control element used for system initialization, monitoring, and control. The radio sets are the radio receiver-transmitters provided to EPLRS VHSIC users. The battalion uses EPLRS VHSIC to provide WAN connectivity down to platoon and up to SBCT. The antenna used with the system is an omni-directional dipole. The planning range is three to ten kilometers between radios, depending on power output settings and terrain.

B-15. RESPONSIBILITIES

Key communications personnel include: the battalion signal officer, unit signal support systems specialists, systems integration vehicle (SIV) operators, CP LAN manager, and ABCS system administrator:

a. **Battalion S6 (Signal Officer).** The battalion S6 manages the operations of communications systems received from the SBCT communications systems to support

their organization as well as the battalion's own communications systems. He has OPCON of attached signal personnel. The battalion S6--

- Participates in the planning and operations process of the battalion.
- Coordinates closely with the brigade S6 on planning and operating the TI as it relates to the battalion.
- Understands the capabilities and operation of all communication and automation equipment in the battalion.
- Advises the battalion staff on communications matters.
- Receives and validates EPLRS VHSIC requirements and provides these to the SBCT signal officer.
- Maintains the status of communications systems operating in the battalion.
- Coordinates employment and operation of the SIV assigned for network management.
- Keeps the SIV team apprised of battalion mission operations.
- Exercises supervisory responsibility for training and assigning the signal support system specialists in the battalion.
- Develops a concise signal annex to the battalion OPLAN or OPORD.
- Tracks COMSEC distribution within the battalion.

b. **Unit Signal Support Systems Specialists.** The unit signal support system specialists assigned to all units accomplish system maintenance and TI system initialization and reinitialization functions, as required.

c. **SIV Operators.** The two information systems integrator-analysts and one single-channel radio operator are responsible for SIV operations. The information systems operator-analysts execute the network plan, initialize the network, and operate the network. The radio operator-maintainer establishes the site for the SIV and installs, operates, and maintains the radio systems (SINCGARS SIP, EPLRS VHSIC, and NTDR) in the SIV.

d. **CP LAN Manager.** The battalion S3 is responsible for ensuring the CP LAN, which supports all ABCS component systems, is properly integrated to provide synchronization of information needed for successful battle command execution.

e. **ABCS System Administrator.** The system administrator is responsible for the installation, operation, and maintenance of an ABCS computer host. Each ABCS component system (ASAS, AFATDS, CSSCS, FAADC3I, and MCS) assigns a "senior operator" to serve as system administrator.

Section V. DIGITAL COMMAND AND CONTROL SYSTEMS AND ARCHITECTURE

This section provides basic information on the digital command and control systems and architecture that support SBCT C2 operations.

B-16. ARMY BATTLE COMMAND SYSTEM COMPONENTS

The ABCS consists of the five Army tactical command and control system (ABCS) subcomponents, the FBCB2 system, and the tactical internet. The ABCS components have traditionally been "stovepipe" systems in their development, with very limited interface capability to other digital systems. The ABCS components are the primary digital communication systems between command posts. FBCB2 is the primary digital

system for communication and transmission of data at battalion level and below and for some SBCT units (for example, the SBCT calvary squadron (RSTA) reconnaissance troop).

a. **Maneuver Control System.** The MCS is the hub of the ABCS component in each command post. It is the primary system for the creation and dissemination of orders, graphics, and operations-related reports. Embedded battle command (EBC) is a software subcomponent of MCS-Light. It is a derivative of FBCB2 software and allows MCS-Light to exchange reports and graphics with FBCB2 systems.

(1) At battalion level, MCS-Light performs these primary functions:

- Receives orders and graphics from higher and adjacent units.
- Creates and disseminates orders and graphics to subordinate, higher, and adjacent units. Near-term ability to interface graphics and orders to FBCB2 and platform EBC is limited.
- Extracts information from other systems to display a picture of the battlefield that may include friendly and enemy positional information, terrain, friendly graphics, artillery range fans, ADA umbrellas, obstacles and contaminated areas, C2 INFOSYS nodes, and supply nodes.
- Sends and receives reports.

(2) Future system capabilities should allow for MCS to support course of action analysis and war gaming as well as digital rehearsals.

(3) Two MCS-Light systems are located in the CP. One is used primarily for generation and transmission of orders and messages; the other is normally set to display the enemy and friendly COP and friendly graphics to allow the staff to track the battle.

(4) There are limitations in the automatic generation of friendly locations. Obviously, forces that are not equipped with FBCB2 or are not transmitting to the TI will not automatically appear in the COP picture and must be manually input into MCS by the operations section. Operators may also manually input friendly icons via FBCB2.

b. **All-Source Analysis System.** ASAS supports intelligence operations, providing linkage to strategic and tactical intelligence sensors and sources. ASAS primary functions include--

- Data access, databasing, and correlation capabilities.
- Creation and dissemination of intelligence reports, templates, and annexes.
- Receipt of intelligence reports from a variety of sources (including FBCB2 and other digital systems and display and management of the enemy COP).
- Collection management.
- Support of targeting functions.

The battalion has a single ASAS-Light system located in the S2 platform at the CP. The S2 uses ASAS-Light to receive intelligence reports from all sources and to create and manage the correlated COP, which the other ABCS components in the CP can access. Additionally, the S2 routinely sends the ASAS-Light picture he generates down to subordinate units via FBCB2. He also sends it to the SBCT, where it is integrated into the brigade-level enemy picture by the SBCT S2 section.

c. **Advanced Field Artillery Tactical Data System.** AFATDS provides automated capabilities to control fire support operations. Located in the FSE platform at the CP and in the supporting artillery battalion CP, the system provides the ability to--

- Create and disseminate fire support orders, graphics, and control measures.
- Receive and process calls for fire from other digital systems and target acquisition radars.
- Manage mission allocation.
- Monitor firing unit status and locations.
- Transmit and receive reports and free-text messages.
- Display the enemy and friendly COP from MCS-Light and ASAS-Light.
- In conjunction with ASAS, provide integrated fires and IEW management.

d. **Forward Area Air Defense Command, Control, and Intelligence System.** FAADC3I is the collection of computer and communication systems used to control air defense elements and create the air battle picture. It serves to integrate sensors (airborne warning and control system [AWACS], Patriot, Sentinel) with SHORAD weapons systems. The long-range air picture is created from information received from AWACS aircraft transmitted on joint tactical information distribution system (JTIDS) radios, and from the division's Sentinel air acquisition radars transmitted through the ground-based sensor. Air track data is sent via EPLRS and SINCGARS radios to individual firing elements (Linebacker, Avenger, and Stinger teams). The total FAADC3I system provides real-time enemy air engagement operations, airspace data, and air threat early warning. The air defense element in the battalion CP is equipped with an AM radio to monitor the division air defense early warning net and a handheld terminal unit that provides a digital link to the FAADC3I network. FM voice remains the primary means for transmitting initial air threat warnings to the battalion as a whole for the near-term. FBCB2 is the secondary method and is capable of displaying both visual and audible alerts to crews.

e. **Combat Service Support Control System.** CSSCS provides logistics status and information in support of CSS planning and operations. The system receives subordinate unit logistical reports, and it transmits reports and requirements to echelons-above-brigade support elements. CSSCS is not available in combat units. Within the SBCT the BSB is fielded with the CSSCS system.

f. **FBCB2 and Embedded Battle Command.** FBCB2 and its derivative, EBC, is the foundation system for ABCS. Mounted on most of the vehicles in the battalion, each system is linked to a precision light weight GBS receiver (PLGR) and a SINCGARS or EPLRS radio. Each FBCB2 generates and transmits its own position location. Collectively, the FBCB2 systems generate the friendly picture. Operators use FBCB2 to generate enemy spot reports, which comprise most of the enemy picture at the tactical level. The system's capabilities for messaging, reporting, and producing orders and graphics support battle command for each battlefield functional area.

(1) *Embedded Battle Command.* Some platforms have the embedded battle command system. These systems have segments of FBCB2 software loaded into computers that are built into the vehicle (not added on, as FBCB2 is). EBC is a separate software package that allows platforms to share information with FBCB2-equipped platforms and ABCS components. The vehicle computer is designed to support a variety of vehicle operations in addition to command and control. On the vehicles noted above, the computers also perform fire control functions. (In this manual, the general term FBCB2 includes the platform EBC for the sake of simplicity.)

(2) *Internet Controller.* FBCB2 receives data across the tactical internet via the internet controller (INC). The INC is a tactical router built into the SINCGARS radio

system. The EPLRS data radio and the SINCGARS radio transmit and receive digital information between vehicles.

B-17. DIGITAL COMMAND AND CONTROL TECHNIQUES
This paragraph discusses considerations and techniques for digital command and control procedures and for integrating analog and digital units. The potential of these systems to contribute to battlefield lethality, tempo, and ability to dominate is enormous. Digital command and control systems bring a dramatic increase in the level of informational dominance units may achieve. They can significantly speed the process of creating and disseminating orders; allow for extensive databasing of information; and increase the speed and fidelity of coordination and synchronization of battlefield activities. At the same time, achieving the potential of these systems requires extensive training, a high level of technical proficiency by both operators and supervisors, and the disciplined use of detailed SOPs. Communications planning and execution to support the digital systems is significantly more demanding and arduous than is required for units primarily relying on FM and MSE communications.

a. **FM or Digital.** Whether to use FM or digital means for communication is a function of the situation and SOPs. Even though both systems are critical for effective C2 at the battalion level, FM remains the primary method for control at battalion level and below during operations, with additional support from the COP display provided by FBCB2. Some general considerations can help guide the understanding of when to use which mechanism at what time.

(1) FM is the primary method of communications between battalion and SBCT and when elements are in contact throughout the battalion. Prior to and following an engagement, the staff and commanders use digital systems for disseminating orders and graphics and conducting routine reporting. During operations, however, the battalion staff uses a combination of systems to report and coordinate with higher and adjacent units.

(2) Staffs at higher echelons, particularly division and brigade levels, must remain sensitive to the difficulty and danger of using digital systems when moving or in contact. They should not expect digital reports under those conditions. Other general guidelines include the following:

- Initial contact at any echelon within the battalion should be reported on FM voice; digital enemy spot reports should follow as soon as possible to generate the enemy COP
- Elements moving about the battlefield (not in command posts) use FM voice unless they can stop and generate a digital message or report.
- Emergency logistical requests, especially casualty evacuation requests, should be initiated on FM voice with a follow-up digital report, if possible.
- Combat elements moving or in contact should transmit enemy spot reports on FM voice; their higher headquarters should convert FM reports into digital spot reports to generate the COP. At team level, the XO, the first sergeant, or the troop CP converts the reports.
- Calls for fire on targets of opportunity should be sent on FM voice; team FISTS submit digitally to AFATDS.
- Planned calls for fire from FISTS in the initial part of an engagement should be sent digitally.

- Routine logistical reports and requests should be sent digitally.
- Routine reports from subordinates to battalion prior to and following combat should be sent digitally.
- Orders, plans, and graphics should be sent digitally, accompanied by FM voice call to alert recipients that they have critical information being sent to them. Additionally, the transmitting element should request a verbal acknowledgement of both <u>receipt</u> and <u>understanding</u> of the transmitted information by an appropriate soldier (usually not the computer operator).
- Obstacle and NBC-1 reports should be sent initially by voice followed by digital reports to generate a geo-referenced message portraying the obstacle or contaminated area across the network.

b. **Friendly COP.** The creation of friendly COP is extensively automated, requiring minimal manipulation by command posts 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, since some elements may not be in that platform's network. For example, a combat vehicle in a battalion will probably not have information on a corps artillery unit operating nearby since the two are in different networks. The COP generated from individual FBCB2 platforms is transmitted to command posts through the TOC server to MCS-Light. The other ABCS components can access the friendly COP through MCS.

(1) *Limitations.* Commanders must recognize limitations in the creation of the friendly COP that results from vehicles or units that are not equipped with FBCB2 or EBC. The following are two aspects to consider.

(a) Not all units will be equipped for years to come, particularly in the reserve component. With over 60 percent of the corps logistical units and supporting artillery in the Army Reserve or National Guard, it is inevitable that analog units will enter the SBCT and battalion area of operations.

(b) Most dismounted soldiers will not be equipped with a digital device that transmits information. A system (Land Warrior) for dismounted soldiers is under development.

(2) *Solutions.* The following are ways to overcome these limitations:

(a) 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.

(b) The battalion main CP tracks analog units operating with the battalion and generates associated friendly icons.

(c) A digitally equipped platform acts as a liaison or escort for analog units moving or operating in the battalion area. Battalion and higher elements must be informed of the association of the LNO icon with the analog unit.

(d) <u>Do not use friendly positional information to clear fires since not all elements will be visible!</u> Friendly positional information can be used to <u>deny</u> fires and can aid in the clearance process, but it cannot be the sole source for clearance of fires. This holds true for all ABCS systems.

c. **Enemy COP.** The hardest and most critical aspect of creating the COP is creating the picture of the enemy. The enemy COP at SBCT and battalion levels is the result of

multiple inputs--FM spot reports, UAV and JSTAR reports, reports from FBCB2- and EBC-equipped platforms in subordinate units, electronic or signal intelligence feeds, and inputs from the S2 section. Enemy information generation is a complex process that is partially automated but requires a great deal of work and attention to detail to get right.

(1) Generation of the enemy COP occurs at all echelons. At battalion level and below, the primary mechanism for generating information is FBCB2. When an observer acquires an enemy element, he 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, he ideally passes responsibility for the icon to another observer. If multiple observers see the same enemy element and create multiple reports, the battalion or SBCT S2 (or some other element that has the capability) must eliminate the redundant icons.

(2) FBCB2 spot reports must include the higher headquarters S2 in the address group for the data to be routed through the CP server into ASAS-Light to feed the larger intelligence picture. FM reports received at a command post can be manually input into the ASAS-Light database by the S2 section. FBCB2 and FM voice reports are the primary source of enemy information for fighting the close and rear battles.

(3) In the SBCT, the S2 section and the supporting analysis control team receive ASAS intelligence feeds from higher and adjacent units along with feeds from JSTARS, UAVs, and the common ground station. They enter enemy information from these sources into the ASAS database and send this information via FBCB2 to the battalion S2s. These feeds, along with FM voice and FBCB2 reports, are the primary sources of the enemy COP for executing the SBCT deep fight and providing battalions a picture of what is coming into their areas.

(4) Fusion of all the intelligence feeds is normally done at brigade and division levels. The SBCT S2 routinely (every 30 minutes to every hour) sends the updated enemy picture to subordinate units down to platform level. Since the fused ASAS database is focused on the deeper areas of the battlefield and its timeliness may vary, subordinate battalion elements and the reconnaissance units normally use only the FBCB2-generated COP. Companies should stay focused entirely on the FBCB2-generated COP. Battalion leaders and staffs refer occasionally to the FBCB2-generated intelligence picture to keep track of enemy forces that will be encountered in the near future but that are not yet part of the battalion close fight.

(5) As systems develop further in the future, the generation of the enemy COP will be increasingly automated. However, the success of the intelligence effort depends primarily on the ability of staffs to analyze enemy activities effectively, to develop and continuously refine effective IPB, and to create and execute effective collection management plans. Automation and displays contribute enormously to the ability to disseminate information and display it in a manner that aids comprehension, but information generation must be rapid for it to be useful. Information must also be accompanied by analysis: pictures alone cannot convey all that is required nor will they be interpreted the same by all viewers. S2s must be particularly careful about spending too much time operating an ASAS terminal while neglecting the analysis of activities for the SBCT and subordinate commanders and staffs.

(6) The enemy COP is usually incomplete and less current than friendly COP. The timeliness and accuracy of the enemy picture must always be scrutinized. Use the picture to focus observers and orient the fire support process but do not use it as the sole source for generating indirect fire support target location data--it will usually not be timely enough.

d. **Graphics and Orders.** All ABCS components effectively support the creation and transmission of doctrinal field orders. The SBCT staff sections normally develop their portions of orders and send them to the S3 (plans) where they are merged into a single document and transmitted to subordinate, higher, and adjacent units. In creating orders, remember that the tactical internet does not possess high transmission rates like civilian E-mail. Orders and graphics must be concise to reduce transmission times. Orders transmitted directly to FBCB2-equipped systems (as all subordinate leaders in the battalion have) must meet the size constraints of the order formats in FBCB2. Graphics and overlays should be constructed with the same considerations for clarity and size.

(1) *Graphics.* When creating graphics, remember that the primary users will be FBCB2-equipped. The graphics must interface and transmit. The interface and commonality of graphics will continue to evolve technologically and will require further software corrections. The following guidelines apply.

(a) Create control measures relative to readily identifiable terrain, particularly if analog units are part of the task organization.

(b) Boundaries are important, especially when multiple units must operate in near proximity or when it becomes necessary to coordinate fires or movement of other units.

(c) Intent graphics that lack the specificity of detailed control measures are an excellent tool for use with warning and fragmentary orders and when doing parallel planning. Follow them with appropriately detailed graphics as required.

(d) Use standardized colors to differentiate units. This should be articulated in the SBCT SOP and established at brigade level. For example, SBCT graphics may be in black, armor battalion A in purple, armor battalion B in magenta, and mechanized infantry battalion in brown. This adds considerable clarity for the viewer. Subordinate team colors should be specified.

(e) Use traditional doctrinal colors for other graphics (green for obstacles, yellow for contaminated areas, and so on). Develop an SOP that uses the color capabilities of the systems to identify templated actions or activities (such as proposed obstacles and templated enemy actions or positions) and executed or actual activities (emplaced obstacles and observed enemy).

(2) *Overlays.* When creating overlays, use multiple smaller overlays instead of a single large overlay. This speeds transmission times. System operators can open the overlays they need, displaying them simultaneously. This technique also helps operators in reducing screen clutter.

(a) The S3 should create the initial graphic control measures (boundaries, objectives, and phase lines) on a single overlay and distribute it to the staff. This overlay should be labeled as the operations overlay with the appropriate order number.

(b) Staff elements should construct their appropriate graphic overlays using the operations overlay as a background but without duplicating the operations overlay. This avoids unnecessary duplication and increase in file size and maintains standardization

and accuracy. Each staff section labels its overlay appropriately with the type of overlay and order number (for example, fire support, OPORD X-XX).

(c) Before overlays are transmitted to subordinate, higher, and adjacent units, the senior battle captain or the XO checks them for accuracy and labeling. Hard copy (traditional acetate) overlays are required for the CPs and any analog units.

(d) Transmit graphics for on-order missions or branch options to the plan before the operation as time permits. If time is short, transmit them with warning orders.

(3) *Acetate Maps.* The advent of digitization does not mean that acetate and maps have no use and will disappear, at least not in the near future. Maps still remain the best tools when maneuvering and fighting on the battlefield or for controlling and tracking operations over a large area. The combination of a map with digital information and terrain database is ideal; both are required and extensively used.

B-18. SOP CONSIDERATIONS

This paragraph contains information regarding digital operations that is relevant for the SBCT and battalion tactical SOPs. Most of the digital operating procedures must be established at brigade level to achieve standardization and effective C2 INFOSYS. As units have different mission requirements and technical changes occur, they should experiment with these guidelines.

a. **Filter Settings.** To create a common picture, all FBCB2 and EBC platforms must have the same information filter settings. This is particularly important for the enemy COP so that as icons go stale, they purge at the same time on all platforms. Standard filter settings based upon the nature of the enemy's operation should be established in unit SOPs and be the same throughout the SBCT. For enemy offensive operations, the filter setting times should be short; for enemy defensive operations, the setting times should be longer, reflecting the more static nature of the enemy picture.

(1) Standard filter setting may need adjusting based on the terrain and the mission. In compartmentalized, difficult terrain, longer settings are more appropriate, maybe 10 minutes for the attack. In wide-open, fast-paced operations in the desert, however, shorter settings in the 5-minute range may be more appropriate. Also, as the enemy transitions from offensive to defensive operations, the decision should be made at brigade level to change to the appropriate standard filter setting.

(2) The standardization of friendly situational filter settings is of equal importance in maintaining a common COP throughout the force. FBCB2 provides three methods for updating individual vehicle locations: time, distance, and manually. When the system is fully operational, it automatically updates friendly icons using time, distance traveled, or both, based on the platform's friendly situational filter settings. These settings should be standardized across the force based on both the mission and the function of the platform or vehicle, with shorter refresh rates for combat vehicles and vehicles that frequently move versus longer refresh rates for fairly static vehicles such as CPs. Tailoring the frequency of these automatic updates also reduces the load on the tactical internet, freeing more capacity for other types of traffic.

(3) The friendly icon refresh rate may also change as the battle is executed. This is especially true in the transition from the offense to the defense or vice versa. The standardization of friendly situational filter settings is probably most effectively done at the brigade level using the SBCT tactical SOP. There are no set rules for what these

settings should be; they must be established based on the unit's experience in using FBCB2 and the capacity of the tactical internet. The capability to update a vehicle's position manually should be used only when a platform's system is not fully functional and has lost the ability to maintain its position within the system.

b. **Reporting.** It may not be advantageous to have all platforms on the battlefield send spot reports digitally. This can lead to multiple reports of the same enemy element and contribute to an already confused and indecipherable intelligence picture. Defining who within the SBCT can initiate digital spot reports can help eliminate this problem. One technique is to limit the creation of enemy icons via digital spot reports to reconnaissance elements and the company leadership (commander, XO, or 1SG). Others report on FM to their higher headquarters, which creates and manages the icon. Defining who within the SBCT can initiate digital spot reports also helps those who execute the direct fire fight by moving the digital reporting responsibility to someone who is somewhat removed from the fight. At company level, the XO, 1SG, or CP personnel become the primary digital reporters. These assignments cannot be completely restrictive. Unit SOPs and command guidance must allow for and encourage soldiers who observe the enemy and know they are the sole observer (because there is no corresponding enemy icon displayed in the situational COP) to create a digital spot report. SBCT and battalion SOPs should define the schedule for report submissions, the message group for the reports, and the medium (digital system or verbal) to be used.

c. **Updates.** Establish a routine schedule of system updates. For example, the S2 section should continuously update the ASAS database and should transmit the latest COP to the network every 30 minutes during operations if the battalion commander, S3, or reconnaissance elements need it. Also, staff sections should print critical displays on an established schedule. These printed snapshots of the COP can be used for continuity of battle tracking in the event of system failures and can contribute to AARs and unit historical records.

d. **Orders and Overlays.** SOPs should define the technical process for creating, collating, and transmitting orders and overlays, both analog and digital.

e. **Filing System Naming Convention.** For interoperability and clarity, SBCT SOPs should define the naming convention and filing system for all reports, orders, and message traffic. This significantly reduces time and frustration associated with lost files or changes in system operators.

f. **Color Standards.** As discussed previously, SOPs should define colors used in graphics down to team level.

g. **Databases.** C2 INFOSYS will inevitably migrate to a web-based capability, allowing information to be entered into a database and then accessed by users as needed or when they are able to retrieve it. For example, the S2 may transmit an intelligence summary to all subordinates and inevitably some will lose the file or not receive it. The S2 can simultaneously post that same summary to his "homepage" so users can access it as required. If this technique is used, there are a few key things to consider:

- Posting a document to a homepage does not constitute communications. The right people must be alerted that the document is there and available.
- Keep documents concise and simple. Elaborate Powerpoint slide briefings will take days to transmit, collapsing the tactical internet. Gaudy graphics and templates are a no-go.

- The amount of information entered in a database and personnel who have access must be carefully controlled, both to maintain security and to keep from overloading the tactical internet.

B-19. INTEGRATING DIGITAL AND ANALOG UNITS

It will be several years before the majority of the Army is digitally equipped. Even then, the SBCT will operate with elements without digital equipment, especially in joint or coalition environments. National Guard and Army Reserve units, light forces, supporting corps artillery, and corps-level logistical units are the most likely types of analog units with whom the SBCT and its battalions will operate. Procedures for integrating digital and analog units are essential for the SBCT.

a. FM and MSE are the primary communications mediums with the analog unit.

b. Hard copy orders and graphics are required.

c. Graphical control measures require a level of detail necessary to support operations of a unit without situational information. This generally requires that more control measures be tied to identifiable terrain.

d. LNO teams are critical.

e. The battalion staff must recognize that integrating an analog unit into a digital unit requires retention of most of the analog control techniques. In essence, two control systems must be in operation, with particular attention paid to keeping the analog unit apprised of all pertinent information that flows digitally.

APPENDIX C
SNIPER EMPLOYMENT

Snipers play an important role in the SBCT infantry battalion. They give the commander accurate, discriminatory, long-range small-arms fire. The best use of sniper fire is against key targets that other available weapon systems may be unable to destroy due to their range, size, or location; visibility; security and stealth requirements; avoidance of collateral damage; intensity of conflict; or rules of engagement. The techniques snipers use enable them to gather detailed, critical information about the enemy as a secondary role. The effectiveness of a sniper is not measured simply by the number of casualties or destroyed targets; sniper effectiveness also includes the effect the presence of snipers has on enemy activities, morale, and decisions. The presence of snipers hinders the enemy's movement, creates confusion and personal fear, disrupts enemy operations and preparations, and compels the enemy to divert forces to deal with the snipers. (See FM 23-10.)

C-1. SNIPER TEAMS

The battalion sniper squad is a modular organization consisting of a squad leader and two similarly equipped three-man sniper teams (Figure C-1). Each team, consisting of the team leader, one sniper, and one observer, is capable of providing the battalion with a full range of sniper support. The team is equipped with both the M24 7.62-mm sniper rifle (providing antipersonnel fires out to 800 meters) and the .50-caliber XM107 sniper rifle (providing antipersonnel and anti-equipment fires beyond 800 meters). The third member of the sniper team is equipped with an M203 rifle system to provide protection and security for the sniper and his spotter as well as a means to break contact if the team is compromised. Sniper teams avoid contact until they have identified their targets. Involvement in sustained close combat is not the optimal employment of sniper teams.
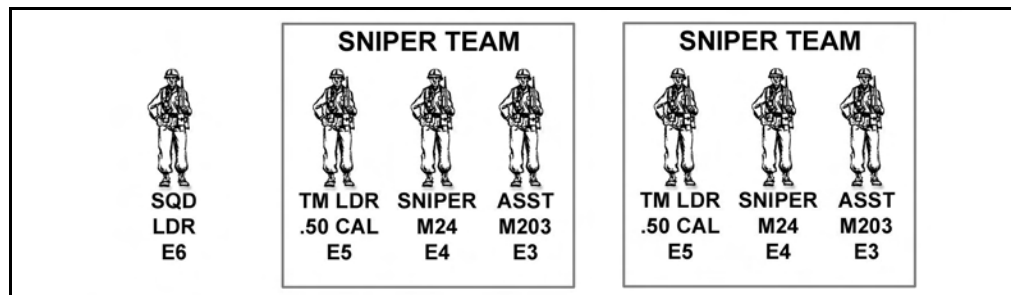
Figure C-1. Sniper team.

a. **Employment.** The commander or designated sniper employment officer controls sniper teams from a central location. Once deployed, snipers generally operate independently. They must understand the commander's intent, his concept of the operation, and the purpose for their assigned tasks. This understanding allows the teams to exercise initiative within the framework of the commander's intent and to support the

commander's concept and accomplishment of the unit's mission. Snipers are effective only in areas that offer good fields of fire and observation. They must have the freedom of action to choose their own positions once on the ground. The number of sniper teams participating in an operation depends on their availability, the expected duration of the mission, and the enemy's strength.

b. **Security Element.** Sniper teams should move with a security element (squad or platoon) whenever possible. This allows the teams to reach their areas of operation faster and more safely than if they operated alone. The security element also protects the snipers during operations. When moving with a security element, snipers follow these guidelines:

(1) The leader of the security element leads the sniper team.

(2) Snipers must appear to be an integral part of the security element. To do so, each sniper carries his weapon system in line with and close to his body to hide the weapon's outline and barrel length. Snipers also conceal from view all sniper-unique equipment (optics and ghillie suits).

(3) The snipers' uniforms must be the same as that of security element members. Snipers and element members maintain proper intervals and positions in the element formation.

c. **Sniper Employment.** It is very important that all commanders understand the capabilities and limitations of the sniper teams. When properly employed, the sniper teams can contribute significantly to the fight.

(1) *Mission.* The sniper's primary mission is to support combat operations by delivering precise rifle fire from concealed positions. The mission assigned to a sniper team for a particular operation consists of the task(s) the commander wants the sniper team to accomplish and the reason (purpose) for it. The commander must decide how he wants his sniper team to affect the battlefield. Then he must assign missions to achieve this effect.

(a) The commander should assign priorities to targets so snipers can avoid involvement in sustained engagements. Regardless of the target priorities, the sniper team must be free to change targets to support the commander's intent.

(b) The commander may describe the effect or result he expects and allow the sniper team to select key targets.

(c) The commander may assign specific types of targets to achieve an effect. For example, if he wants to disrupt the defensive preparations of the enemy, he may task snipers to kill engineer equipment operators. He may task them to disable enemy vehicles carrying supplies, or he may task them to engage soldiers digging enemy defensive positions.

(d) The commander may assign specific targets. These can include enemy leaders, command and control operators, ATGM gunners, armored vehicle commanders, or weapons crews. In urban areas where US forces need to keep casualties to a minimum, snipers can be assigned countersniper tasks and focus on killing enemy snipers.

(2) *Enemy.* The commander must consider the characteristics, capabilities, strengths, weaknesses, and disposition of the enemy:

- Is the enemy force heavy or light, rested or tired, disciplined or not?
- Is it motorized infantry or towed artillery? Is it well supplied or short of supplies?

- Is it patrolling aggressively or lax in security?
- Is it positioned in assembly areas or dug in?

The answers to questions like these help the commander determine the enemy's susceptibility and reaction to effective sniper operations. A well-rested, well-led, well-supplied, and aggressive enemy with armored protection poses a greater threat to snipers than one that is tired, poorly led, poorly supplied, lax, and unprotected. The commander needs to know if enemy snipers are present and effective since they can pose a significant danger to his operations and the snipers. The commander must consider the enemy's directed energy weapons capability since snipers are particularly vulnerable to these due to their use of optical devices.

(3) *Terrain.* The commander must evaluate and consider the terrain in and en route to the sniper's area of operations, the time and effort snipers will expend getting into position, and the effects of weather on the sniper and his visibility. Snipers prefer positions at least 300 meters from their target area. Operating at this distance allows them to avoid effective fire from enemy rifles while retaining much of the 800- to 1,000-meter effective range of the sniper rifle. Snipers need areas of operations with adequate observation, fields of fire, and good firing positions.

(4) *Troops.* The commander must decide how many sniper teams to use depending on their availability, the duration of the operation, expected opposition, and the number and difficulty of tasks and targets assigned. Commanders must consider the snipers' level of training and physical conditioning and remember the effects of these human factors on sniper operations.

(5) *Time Available.* The commander must consider how much time the snipers will have to achieve the result he expects. He must allocate time for snipers to plan, coordinate, prepare, rehearse, move, and establish positions. The commander must understand how the snipers' risk increases when they lack adequate time to plan or to perform other tasks such as move to the area of operations. The amount of time a sniper team can remain in a position without loss of effectiveness due to eye fatigue, muscle strain, or cramps depends mostly on the type of position it occupies. Generally, snipers can remain in an expedient position for 6 hours before they must be relieved. They can remain in belly positions or semi-permanent hides for up to 48 hours before they must be relieved. Normal mission duration times average 24 hours. (FM 23-10 provides guidance on sniper position considerations, construction, and preparation and occupation times.) Movement factors for snipers moving with a security element are the same as for any infantry force. When snipers move alone in the area of operations, they move slowly; their movement can be measured in feet and inches. The sniper team is the best resource in determining how much time is required for its movement.

(6) *Civil Considerations.* The commander and staff must make their assessments based on a thorough understanding and appreciation of the local social and cultural norms. Positive identification of targets, sound engagement policies, discipline, and consideration will positively affect the attitudes of the population toward the battalion. In populated areas where casualties should be kept to a minimum, the sniper team can be assigned to destroy enemy snipers.

C-2. OFFENSIVE EMPLOYMENT

Offensive operations carry the fight to the enemy to destroy his capability and will to fight. By killing enemy targets that threaten the success of the attack, the sniper can play a major role in offensive operations.

    a. **Offensive Operations.** During the attack or a movement to contact, snipers--

- Conduct countersniper operations.
- Overwatch movement of friendly forces and suppress enemy targets that threaten the moving forces.
- Conduct surveillance and observation of enemy positions and or planned friendly positions.
- Place precision fire on enemy crew-served weapons teams and into exposed apertures of bunkers.
- Place precision fire on enemy leaders, armored-vehicle drivers or commanders, FOs, and other designated personnel.
- Place precision fire on small, isolated, bypassed forces.
- Place precision fire on targets threatening a counterattack or fleeing.
- Assist in screening a flank using supplemental fires.
- Can be employed 24 to 48 hours before the unit's movement.
- Select positions.
- Gather information about the enemy.
- Deny enemy access to key terrain through controlled precision fires, preventing enemy surprise attacks.

    b. **Dismounted Assault.** Snipers can provide effective support during a dismounted assault.

    (1) Contact may force the rifle companies to dismount and continue moving dismounted. Snipers placed with lead elements move to positions that allow them to overwatch the movement of the rifle companies and provide long-range small-arms fire. Sniper teams are most effective where MGS and ICVs are ineffective--that is, where these vehicles cannot provide overwatching fires. In certain areas, the terrain may limit MGS or ICV mobility. In other areas, the enemy situation may present an unacceptable risk to vehicles occupying hull defilade positions. Vehicle movement could compromise the stealth of the dismounted force. Multiple avenues must be overwatched.

    (2) Snipers may also be placed with a mounted support element (MGS) assigned to suppress, fix, or isolate the enemy on the objective. The sniper rifle's precision fire and lack of blast effect allow the sniper to provide closer supporting fires for rifle companies than the MGS element can provide. The difference in their weapons' effective ranges requires the snipers and the mounted support element to seek support by fire positions at different ranges when terrain allows. Long after the MGSs are forced to shift or lift their supporting fires, snipers can selectively fire on close-in targets threatening the assault. These targets may be gunners of enemy crew-served weapons or enemy soldiers in fortified positions.

    (3) If time permits, snipers may be deployed as soon as the element reaches the dismount point. Because the snipers' weapons have better optics and longer ranges than other types of small arms, they can provide additional long-range observation and

precision fire on any enemy targets that may appear. To increase security, snipers may cover different sectors than the mounted elements.

(4) Snipers may move with the rifle companies toward the objective, occupy a close-in support by fire position where they can help suppress or destroy targets threatening the assaulting force, or move with the rifle companies onto the objective to provide close-in precision fire against enemy fortified positions, bunkers, and trench lines. Selection of the sniper support by fire position depends on METT-TC. The closer snipers are to the objective area, the greater the chance they will be discovered and lose their effectiveness.

(5) To increase security and surprise, snipers may move covertly into position in an objective area well before the companies arrive in the area. Ideally, a sniper team inserting early moves with infiltrating dismounted infantry. This is faster and more secure than moving alone. After the snipers are in position, dismounted infantrymen may remain nearby as additional security, but they are more likely to have other supporting tasks to perform. The proximity of dismounted infantry enhances security.

(6) After their fires are masked, snipers must reposition as soon as possible. The speed of the assaults may prevent snipers from firing from more than one support position. The commander must carefully evaluate where snipers will be most useful. If he wants to use snipers in several different places, or if he wants them to contribute throughout the attack, he should ensure the snipers are able to move quickly, stealthily, and safely on the battlefield.

(7) Upon consolidation, snipers may displace forward to new positions that are not necessarily on the objective. From these positions, the snipers provide precision fire against bypassed enemy positions, enemy counterattack forces, or other enemy positions that could degrade the unit's ability to exploit the success of the attack.

c. **Raid.** During a raid, sniper teams can join with either the security element or the support element to--

- Cover avenues of approach and escape that lead in and out of the objective.
- Cover friendly routes of withdrawal to the rally point.
- Provide long-range fires on the objective.

C-3. ACTIONS AGAINST FORTIFIED AREAS

Assaulting forces usually encounter some type of fortified positions prepared by the defending force. These can range from field-expedient, hasty positions produced with locally available materials to elaborate steel and concrete emplacements complete with turrets, underground tunnels, and crew quarters. Field-expedient positions are those most often encountered. More elaborate positions are likely when the enemy has had significant time to prepare his defense. He may have fortified weapons emplacements or bunkers, protected shelters, reinforced natural or constructed caves, entrenchments, and other obstacles.

a. **Enemy Defensive Positions.** The enemy tries to locate these positions so they are mutually supporting and arrayed in depth across the width of his sector. He tries to increase his advantages by covering and concealing positions and preparing fire plans and counterattack contingencies. Fortified areas should be bypassed and contained by a small force.

b. **Sniper Support.** The sniper's precision fire and observation capabilities are invaluable in the assault of a fortified area. Precision rifle fire can easily detect and

destroy pinpoint targets that are invisible to the naked eye. The snipers' role during the assault of a fortified position is to deliver precision fire against observation posts, exposed personnel, and the embrasures, air vents, and doorways of key enemy positions. The commander plans the order in which snipers should destroy targets. Their destruction should systematically reduce the enemy's defense by destroying the ability of enemy positions to support each other. Once these positions are isolated, they can be reduced more easily. The commander must decide where he will try to penetrate the enemy's fortified positions and then employ his snipers against those locations. Snipers can provide continuous fire support for both assaulting units and other nearby units when operating from positions near the breach point on the flanks. Sniper fires add to the effectiveness of the entire unit; the commander can employ snipers in situations where other resources cannot be used for various reasons.

    c. **Sniper Plan.** The sniper team bases its plan on information available. The enemy information it needs includes--

- Extent and exact locations of individual and underground fortifications.
- Fields of fire, directions of fire, locations and number of embrasures, and types of weapons systems in the fortifications.
- Locations of entrances, exits, and air vents in each emplacement.
- Locations and types of existing and reinforcing obstacles.
- Locations of weak spots in the enemy's defense.

C-4. DEFENSIVE EMPLOYMENT

Snipers may effectively enhance or augment any unit's defensive fire plan. After analyzing the terrain, the sniper team should recommend options to the commander.

    a. **Defensive Tasks.** The sniper team can perform the following tasks during defensive operations:

- Cover obstacles, minefields, roadblocks, and demolitions.
- Perform counterreconnaissance (kill enemy reconnaissance elements).
- Engage enemy OPs, armored-vehicle commanders exposed in turrets, and ATGM teams.
- Damage enemy vehicles' optics to degrade their movement.
- Suppress enemy crew-served weapons.
- Disrupt follow-on units with long-range small-arms fire.
- Damage or destroy thin-skinned vehicles.

    b. **Primary Positions.** Snipers are generally positioned to observe or control one or more avenues of approach into the defensive position. Due to the types of weapons systems available, snipers may be used against secondary avenues of approach. Sniper employment can increase all-round security and allow the commander to concentrate his combat power against the most likely enemy avenue of approach. Snipers may support the SBCT infantry battalion by providing extra optics for target acquisition and precise long-range fires to complement those of the M249, M240B, and M2 machine guns. This arrangement seeks to maximize the effectiveness of all the unit's weapons systems. Snipers in an economy-of-force role may cover dismounted enemy avenues of approach into defensive positions.

c. **Alternate and Supplementary Positions.** Snipers establish alternate and supplementary positions for all-round security. Multiple sniper teams, if used, can be positioned for surveillance and mutual fire support. If possible, they should establish positions in depth for continuous support during the fight. The sniper's rate of fire neither increases nor decreases as the enemy approaches. Sniper teams systematically and deliberately shoot specific targets, never sacrificing accuracy for speed.

d. **Key Terrain.** The commander can position snipers to overwatch key obstacles or terrain such as river-crossing sites, bridges, minefields, or anything that canalizes the enemy directly into engagement areas. Snipers are mainly used where weapons systems are less effective due to security requirements or terrain. Even though weapons systems with greater range and optics capability than the snipers' weapons are available to the commander, he may be unable to use them for any of several reasons. They might present too large a firing signature, be difficult to conceal well, create too much noise, or be needed more in other areas. Sniper team members provide the commander with better observation and greater killing ranges than do other soldiers.

e. **Force Security.** Snipers can be used as an integral part of the security effort. They can help acquire and destroy targets, augment the security element by occupying concealed positions for long periods, observe and direct indirect fires (to maintain their security), and engage targets. Selective long-range sniper fires are difficult for the enemy to detect. A few well-placed shots can disrupt enemy reconnaissance efforts, force him to deploy into combat formations, and deceive him as to the location of the main battle area. The sniper's stealth skills counter the skills of enemy reconnaissance elements. Snipers can be used where reconnaissance or rifle platoon mobility is unnecessary, freeing the reconnaissance teams and rifle squads to cover other sectors. Snipers can also be used to direct ground maneuver elements toward detected targets. This also helps maintain security so ground maneuver elements can be used against successive echelons of attacking enemy.

f. **Strongpoint Employment.** Snipers should be tasked to support any unit defending a strongpoint. The characteristics of the sniper team enable it to adapt to perform independent harassing and observation tasks in support of the force in the strongpoint, either from inside or outside the strongpoint.

g. **Reverse Slope Defense.** Snipers can provide effective long-range fires from positions forward of the topographical crest (or on the counterslope if the unit is occupying a reverse slope defense).

C-5. RETROGRADE EMPLOYMENT

The sniper team must know the concept, intent, scheme of maneuver, withdrawal times or conditions and priorities, routes, support positions, rally points, and locations of obstacles. Both engagement and disengagement criteria must be planned and coordinated to ensure snipers achieve the desired effect without compromising their positions.

a. **Force Enemy Deployment.** Snipers can help the delaying force cause the enemy to deploy prematurely during retrograde operations. They help by inflicting casualties with accurate, long-range small-arms fire. When the enemy receives effective small arms fire from unknown positions, he is likely to assume he is near an enemy position (most likely one with ATGMs) and begin maneuvering to a position of advantage against the perceived threat. Using a sniper team, the commander can achieve the same effect he

could with another infantry unit. The snipers' stealth also gives them a better chance of infiltrating out of positions close to the enemy.

b. **Repositioning.** Delaying forces risk being bypassed or overtaken by attacking enemy forces. Commanders may provide transportation to move snipers to successive positions. Vehicles must remain in defilade positions to the rear of the sniper position, or they must occupy different positions away from the sniper's area of operations to avoid compromising the sniper's position. In either case, a linkup point, egress routes, and conditions for executing the linkup must be fully coordinated. Commanders may also provide communications assets to the sniper team to facilitate control and movement.

c. **Infiltration.** Snipers may be required to infiltrate back to friendly positions. Their infiltration plans must be fully coordinated to avoid fratricide when they try to reenter a friendly position. When planning successive positions, the commander must realize the sniper team may be unavailable for use if it is destroyed or is having difficulty disengaging from an enemy force. The commander must consider carefully how and where he wants snipers to contribute to the operation. Planning too many positions for the sniper team in a fast-paced retrograde may result in failure.

d. **Sniper Tasks.** Snipers may be assigned any of the following specific tasks:
- Delay the enemy by inflicting casualties.
- Observe avenues of approach.
- Cover key obstacles with precision fire.
- Direct artillery fire against large enemy formations.

C-6. URBAN OPERATIONS EMPLOYMENT

The value of the sniper to a unit conducting urban operations depends on several factors, including the type of operation, level of conflict, and rules of engagement. In a high-intensity urban environment where the ROE allow destruction, the precision fire capability of snipers may not be needed; however, their ability to call for fire may be used generously. Where ROE prohibit collateral damage, snipers may be the most valuable tool the commander has to employ. (Refer to FM 3-06.11 for a detailed discussion of sniper employment during urban operations.)

a. **Urban Terrain.** Sniper effectiveness depends partly on the terrain. The characteristics of an urban area degrade control. To provide timely and effective support, the sniper must have a clear understanding of the scheme of maneuver and commander's intent.

(1) Observation and fields of fire are clearly defined by roadways, but rooftops, windows, and doorways limit surveillance. Each requires constant observation. The effects of smoke from military obscurants and burning buildings can degrade what otherwise appears to be an excellent vantage point. All-round defense becomes even more important because the enemy can fire from many directions and because enemy infiltration attempts must be countered.

(2) Cover and concealment are excellent for both the attacker and defender. The defender has a decisive advantage. The attacker normally exposes himself during movement through the area.

(3) Avenues of approach inside buildings are best. Movement there is less easily detected than movement through the streets. The sniper must be conscious of all avenues of approach and must be prepared to engage targets that appear on any of them.

b. **Positioning.** Snipers should be positioned in buildings of masonry construction, which offer long-range fields of fire and all-round observation. The sniper has an advantage because he does not have to move with, or be positioned with, lead elements. He may occupy a higher position to the rear or flanks and some distance away from the element he is supporting. By operating far from the other elements, a sniper avoids decisive engagement but remains close enough to kill distant targets threatening the unit. Snipers should not be placed in obvious positions, such as church steeples and rooftops, since the enemy often observes these and targets them for destruction. Indirect fires can generally penetrate rooftops and cause casualties in top floors of buildings. Snipers should not be positioned where there is heavy traffic because these areas invite enemy observation as well.

c. **Multiple Positions.** Snipers should operate throughout the area of operations, moving with and supporting the companies as necessary. Some teams may operate independent of other forces. They search for targets of opportunity, especially for enemy snipers. Since a single position may not afford adequate observation for the entire team without increasing the risk of detection by the enemy, the team may occupy multiple positions. Separate positions must maintain mutual support. Each team should also establish alternate and supplementary positions.

d. **Tasks.** The commander may assign the following tasks to snipers:
*   Conduct countersniper operations.
*   Kill targets of opportunity. (The sniper team assigns priorities to these targets based on an understanding of the commander's intent; for example, engaging enemy snipers, then leaders, vehicle commanders, radio men, sappers, and machine gun crews, in that order.)
*   Deny enemy access to certain areas or avenues of approach (control key terrain).
*   Provide fire support for barricades and other obstacles.
*   Maintain surveillance of flank and rear avenues of approach (screen).
*   Support local counterattacks with precision fire.

C-7.   STABILITY OPERATIONS AND SUPPORT OPERATIONS
Snipers can be valuable to commanders in stability operations and support operations. Since ROE normally limit collateral damage and civilian casualties, snipers can selectively engage key individuals who pose a threat to friendly forces. This selective engagement avoids unacceptable civilian casualties or collateral damage. Targets often hide in the midst of the civilian populace, which makes them virtually invulnerable to US forces that cannot destroy these targets without causing innocent casualties. An example would be a lone gunman in a crowd who fires at soldiers manning a roadblock. The soldiers must first identify the gunman (this is nearly impossible from their vantage point). Then, without hurting innocent bystanders, they must stop him from continuing to fire or from fleeing. This is an easier task for an overwatching sniper than for infantry on the ground. The sniper can look down on the crowd, use his optics to scan continuously, and employ precision fire to eliminate the identified enemy without harming bystanders. Though other unit optical systems may supplement the surveillance effort (Javelins and TOWs from the ground or from the upper floors of buildings), they do not engage the

target because of the risk of innocent casualties. The sniper rifle provides the commander the only system that can both identify and engage the target.

C-8.   RIVER CROSSINGS
Sniper teams, by virtue of their observation and precision-fire capabilities, are uniquely adaptable to the initial stages of a river crossing. They are normally employed in general support of the battalion both before and during the crossing.

   a.   **Positioning.** Snipers assume positions across the total width of the crossing area (if possible) before the crossing. Their main task is to observe. They report all sightings of enemy positions and activity immediately and provide a stealthy observation capability not otherwise available to the commander. Their stealth prevents the enemy from learning key facts like what type of unit is trying to cross. The snipers supplement normal reconnaissance assets.

   b.   **Crossing Support.** Snipers provide support during the crossing by continuing to observe and suppress enemy OPs and other key targets that heavier supporting elements might overlook. The snipers' ability to continue to provide close-in suppressive fire makes continuous fire support possible up to the moment elements reach the far side and begin their movement to establish the bridgehead line. Snipers should be positioned as early as possible, preferably as part of the reconnaissance force. Their movement across the river must also be planned in advance. How they will get across and where their subsequent positions will be must be coordinated. Generally, they displace once friendly elements reach the far side.

   c.   **Inserted Force Support.** Snipers expand the capability of the inserted force to engage threatening targets at long ranges. Once on the far side, snipers may screen the flank or rear of the crossing force, infiltrate to destroy key targets (such as a demolition guard or fortified emplacement), or man OPs well to the front of the crossing force. This placement increases both early warning time and the crossing force's ability to disrupt enemy counterattack forces.

C-9.   PATROLLING
The effective employment of sniper teams with any size or type of patrol is limited only by the terrain and the patrol leader's ingenuity. Snipers must know and be able to apply all aspects of patrolling.

   a.   **Reconnaissance Patrols.** Snipers normally remain with the security element during reconnaissance patrols. If terrain permits, snipers can provide long-range support to enable the reconnaissance element to patrol farther from the security element. To prevent compromise of the reconnaissance element's position, snipers fire only in self-defense or when ordered by the patrol leader. Normally, the only appropriate time to fire at a target of opportunity is when extraction or departure from the position is imminent and firing will not endanger the success of the patrol.

   b.   **Raid Patrols.** Sniper employment on a raid depends on the time of day and the size of the patrol. When the patrol needs maximum firepower and its size must be limited, snipers may be excluded. If, on the other hand, the patrol needs long-range precision fire and its size permits, sniper teams may be attached to the security element. If appropriate, the sniper team may be attached to the support element to help provide long-range supporting fires. When attached to the security element, the sniper team helps

observe, helps prevent enemy escape from the objective area, and helps cover the withdrawal of the assault force to the rally point. When the element withdraws from the rally point, the sniper team may stay behind to delay and harass enemy counteraction or pursuit.

c. **Ambush Patrols.** During ambushes, snipers are positioned in areas that afford observation and fields of fire on terrain features the enemy might use for cover after the ambush has begun. The snipers' long-range capability allows them to be positioned away from the main body. Sniper fires are coordinated into the fire plan. Once the signal to initiate fires is given, snipers add their fires to the rest of the patrols. Snipers shoot leaders, radio operators, and crew-served weapons teams. If the enemy is mounted, every effort is made to kill drivers of the lead and trail vehicles to block the road, prevent escape, and create confusion. Snipers may remain in position to cover the withdrawal of the patrol.

APPENDIX D
DIGITAL DIVISION SUPPLEMENT

This appendix provides a discussion and vision of the future effects of digitization on the SBCT infantry battalion. The information in this appendix does not change current doctrine of battalion employment. It is intended as an introduction to the effects digitization may have on the battalion.

Digitization is the ongoing effort to integrate the Army's diversified battlefield operating systems into an information exchange network while also enhancing the mission capabilities necessary in a multidimensional battlespace. The future battlespace will be characterized by the effective use of information technology to mass the effects of dispersed firepower rather than exclusive reliance on the physical massing of weapons and forces, which was the primary method employed in the past. Digitization provides rapid sharing of enemy and friendly information among all forces within the battlespace, shares a near-real-time situational picture among those forces, and enhances combat power by making combat forces more lethal and survivable.

D-1. DEFINITION OF DIGITIZATION

FM 101-5-1 defines "digitization" as "the near-real-time transfer of battlefield information between diverse fighting elements to permit a shared awareness of the tactical situation." Digitization is the application of equipment and information technology to acquire, exchange, and employ timely information throughout the battlespace. This information is tailored to the needs of each leader and soldier, allowing each to maintain a clear and accurate vision of the battlespace to support mission planning and execution. Digitization is based on the ability to collect and use common data through networks of sensors, command posts, and weapons platforms. The goal is to create a force equipped to face any contingency, to win the information war against any adversary, and to provide commanders, soldiers, and CSS planners the information each needs to make the vital decisions necessary to prevail in any operation.

D-2. PURPOSE AND GOALS OF DIGITIZATION

The intent of digitization is to enable forces to be more lethal and survivable in an environment characterized by an accelerated operational tempo, instant communications, and immediate response times. Digitization allows leaders and soldiers to communicate vital battlefield graphic information instantly rather than through voice radio and even slower liaison efforts. It provides an integrated digital information network that supports battlefield fire and maneuver and increases command and control. Digitization creates a simultaneous, appropriate picture of the battlespace at each echelon--from soldier to commander--based on the common data collected through the digitized network. This allows leaders and soldiers to collect and use relevant information and maintain an up-to-date awareness of what is happening around them. Some of the major goals of digitization include--

- The rapid processing and transfer of information.
- The capability to react on information faster than the enemy.
- Enhanced situational picture at all levels.
- Increased ability to synchronize direct and indirect fires.
- A means to establish and maintain an overwhelming operational tempo.

D-3. GENERAL CAPABILITIES RESULTING FROM DIGITIZATION

Digitization incorporates advancements in computer, communications, and satellite navigation. Satellite navigation, digital communications, and digital mapping allow leaders and soldiers to see a common picture of the battlespace in real time, resulting in a shared situational picture of what is happening around them. New computer capabilities allow leaders to concentrate battlefield combat power more decisively through the high-speed digital exchange of data, the simultaneous display of intelligence data to leaders at all levels, and the rapid exchange of targeting data from sensors to shooters. Digitization also enhances the leader's capability to receive and send critical planning information needed for mission preparation. It streamlines mission planning and preparation by providing critical information simultaneously to every leader. This compresses the mission planning and preparation cycle by allowing access to needed information earlier in the planning process.

D-4. BATTLEFIELD ADVANTAGES OF DIGITIZED EQUIPMENT

Digitization provides the potential for new techniques and battlefield advantages. For example, tactical computers, Land Warrior (LW) systems, position navigation, and digital communications capabilities enhance coordination, reduce fratricide, and speed up assembly, linkup, relief in place, and passage of lines operations.

D-5. LIMITATIONS OF DIGITIZATION

While maximizing the advantages of digitization, leaders and soldiers must account for the limitations imposed by it. For example, most digitized equipment has a limited battery life that results in the need to transport more batteries and increases the soldier's carrying load. Much of this new equipment is less durable under field conditions and is increasingly complex, requiring highly trained soldiers and leaders to use the equipment effectively. This also means more cross-training at the platoon and squad levels. Another key limitation of digital communications systems is range. In general, digital communication bursts travel only about one half the distance of FM radio transmissions. It is more effective to communicate via FM radio when in contact, but the combination of digital and radio communications equipment potentially increases the unit's electronic signature. (Information transmitted digitally does not have a large signature by itself but presents a large electronic signature when used in combination with significant voice traffic.) Leaders utilizing digital transmissions must minimize voice radio traffic to reduce the chance of detection.

D-6. NEW RESPONSIBILITIES

A major impact of digitization will be the integration of new equipment into existing operations and the challenge of controlling the potential flood of digitized information that is available to the commander.

a. While digitization may speed up planning and preparation for battle, leaders cannot fight the battle from a computer screen. Receiving, transmitting, and updating information processed by tactical computers (used by the mounted soldiers) and LW system computers (used by the dismounted soldiers) consumes both time and the commander's attention. As operations progress and information accumulates, computer screens can become cluttered to the point they are unusable. There is danger that, in attempting to manage this information during contact, leaders can become caught up in fighting from their computers. Thus, leaders should assign a designated data terminal operator (DTO) to operate and monitor the computer and to transmit digital reports. The DTO is also responsible for most digital information processing such as frequency and password updates and other routine functions of digital net control. Units establish the digital nets the same as analog nets.

b. The battalion and subordinate units must be prepared to operate without the use of digital communications because they will still need to coordinate with nondigitized adjacent forces. In addition, they must have "crash" procedures to boot up the system in case of computer failure. They must also have parallel procedures, such as manually plotted graphics, to overcome a complete loss of digitized information.

c. Tactical computers and LW systems require protection procedures to prevent the compromise of digital information. Operational security is a key component of protection. The increase of electronic equipment makes units more susceptible to breaches in OPSEC. The most critical piece of equipment to safeguard is the commander's tactical computer or LW system, because, at a minimum, it contains the entire SBCT's information. Depending on the commander, it may contain location information and the status of the entire battalion. Commanders must establish password protection when initializing their tactical computer or LW system. Password protection ensures the tactical computer or LW system enters the digital net at the appropriate level and has access to information appropriate to that commander. It prevents unauthorized access to the unit's digital database. Password protection is the first step in safeguarding the digital database. Ultimately, there must be procedures for destruction of the computer's data and the computer to prevent its capture and compromise.

d. The commander also has new responsibilities to ensure all applicable digital equipment is incorporated into each training scenario, to perform cross training on new equipment and procedures, and to provide the proper care, maintenance, and inspection of all assigned digital equipment.

D-7. COMMAND AND CONTROL

Perhaps the largest and most immediate impact of digitization is its effect on the command and control process. Digitization streamlines planning and preparation by allowing the simultaneous transfer of information between all leaders. This enables them to plan and prepare concurrently. Using digitized equipment should compress the planning cycle for commanders and allow planning at all levels to begin sooner.

D-8. MILITARY DECISION-MAKING PROCESS

Digitization's immediate impact on the military decision-making process is that it provides the ability to receive and transmit WARNOs, FRAGOs, and OPORDs digitally between levels of command. This means that subordinates can learn about operational

requirements sooner and begin planning and preparation without waiting for an OPORD. Using this advantage means that commanders must incorporate digital tasks into the MDMP. The following paragraphs discuss the impact of digitization on the MDMP.

a. **Receipt of Mission.** The battalion may receive the mission by voice, by radio, in writing, or digitally, and it may be in warning order, operation order, or fragmentary order format. The digitized unit can receive a warning order from SBCT headquarters over the tactical computer or LW system almost as soon as the SBCT receives a mission tasking from division. The battalion should receive the order over the tactical computer in the form of a free-text message or preformatted warning order with accompanying digital graphics.

(1) *Acetate Overlays.* If the battalion is working with a nondigitally equipped element, the battalion staff must ensure that element receives an acetate overlay of the operational graphics. Every subordinate commander and leader should maintain acetate overlays as a backup in case the digital system fails.

(2) *Warning Order.* Digital systems enable the battalion to receive a warning order as soon as it is issued on the digital net. Upon receipt of the battalion warning order, subordinate units begin preparations based on the commander's guidance and battalion SOP. The battalion staff should issue follow-up WARNOs as new information becomes available. Due to the digitized unit's enhanced information-sharing capabilities, subordinates can receive continuous information updates throughout the decision-making process.

b. **Mission Analysis.** With the advent of digitization, subordinates can take the initiative and begin preparing for combat based on digital warning order(s) while the battalion goes through the military decision-making process. Subordinate commanders should not wait until the formal OPORD is issued to begin preparation for the upcoming mission.

(1) The battalion continuously refines the plan as new information becomes available, and it issues follow-up WARNOs to subordinate units over the tactical computer or LW system. Mission analysis allows the battalion commander to begin his battlefield visualization. The major result of the mission analysis is a definition of the tactical problem and the start of determining feasible solutions.

(2) The battalion receives a digital enemy situational template and paragraph 1a (enemy situation) from the SBCT. As the mission analysis nears completion, the battalion commander issues a warning order to company commanders by tactical computer. The company commanders develop their own situational templates and send these refined situational templates to their platoon leaders over the tactical computer.

(3) The battalion staff may use the tactical computer to send requests for information to the SBCT to assist during the mission analysis process. The SBCT, in turn, may use the tactical computer to get intelligence information from division to answer the requests for information. The SBCT may also receive digital information from the SBCT reconnaissance troop's digital computer if the troop is deployed. By the same token, the battalion may gain information from the deployed battalion reconnaissance platoon. Any major change in information could affect the IPB process, the CCIR, and the mission.

(4) Weather and terrain information can be provided in the digital display of the area of operations. The battalion also receives update messages of weather changes that may impact on the mission in a free-text message format over the tactical computer. Insofar as

weather changes and new information on terrain can affect the mission, they also affect mission analysis.

(5) Members of the battalion staff can use the tactical computer to access battalion status based on updates from subordinate units. The staff can consider the location, strength, weapons systems, training level, maintenance status, and logistical status of subordinate units and the capabilities of attached elements. The battalion can receive continuous digital updates on subordinate units' combat and logistical status and location by LW system or tactical computer. This information is closely related to mission analysis in the areas of available assets, constraints, and critical facts and assumptions.

(6) The battalion staff enters into the tactical computer an overlay of graphic control measures to support the operation and sends this to subordinates digitally, rapidly providing the graphic portion of the initial warning order of the mission analysis process.

c. **Course of Action Development.** The battalion commander provides his guidance to the battalion staff, which then develops courses of action. The battalion staff uses the tactical computer to graphically depict enemy and friendly forces on both sides and the supporting sketches.

d. **Course of Action Analysis.** The purpose of COA analysis is to identify which COA will accomplish the mission with minimum casualties while positioning the battalion to retain the initiative for further operations. The method of this analysis is through war gaming, which may be conducted by digitization with the MCS-Phoenix (MCS-P) in the main CP.

e. **Course of Action Comparison.** Each battalion staff officer performs a COA comparison of each COA, making use of the evaluation criteria developed in step 5 of the war-gaming process. In weighing the advantages and disadvantages of each COA, the battalion staff should use the tools the tactical computer has for this purpose, such as a decision matrix. The battalion staff presents to the commander the results of the comparison with a recommended COA.

f. **Course of Action Approval.** The commander decides on the COA, and the battalion staff immediately issues a warning order with the essential information for company commanders to refine their plans. The staff uses the tactical computer or LW system to issue the order.

g. **Orders Production.** The commander and staff develop the operations order from the approved COA and issue it through the tactical computer. When the battalion is widely dispersed and cannot assemble its commanders to receive the OPORD, the commander can send the OPORD with accompanying graphics to subordinates by tactical computer or LW system.

(1) Regardless of whether the OPORD is digital or oral, the battalion uses the tactical computer or LW system to send subordinate units the mission statement, the concept of the operation, a brief overview of the enemy situation, and a maneuver paragraph with operations graphics. This provides subordinate commanders with an overview of the plan and allows them time to formulate pertinent questions and post digital graphics to their maps.

(2) With the advent of digitization, it has become even more crucial for subordinate commanders to take initiative and begin preparing for combat based on digital warning orders while the battalion prepares the detailed plan. Subordinate leaders must begin preparing when they begin receiving digital warning orders over their tactical computers.

This is called parallel planning. The company commanders continue to monitor their tactical computers to refine their planning and preparation as additional information becomes available.

D-9. EFFECTS OF DIGITIZATION ON MISSIONS
Digitization affects mission accomplishment in the following ways:

a. The FBCB2 displays the current location of all platoons (or, if need be, each combat vehicle). This increased situational picture allows digitized formations to move more rapidly during tactical movement. Digitized units can also use waypoints entered into their tactical computers to assist in navigating from waypoint to waypoint. They can use the tactical computer's preformatted spot reports to report any enemy forces they detect and can digitally call for direct or indirect fire. Calls for indirect fire are relayed through the AFATDS.

b. Commanders can control tactical formations with greater precision using the position navigation (POSNAV) capability of the tactical computer and LW system. The commander plans movement routes after receiving obstacle overlays and situational template overlays in the MCS-Light. He relays this information to the tactical computer or LW system to identify reported enemy and obstacle locations. He can create additional graphic control measures, as needed, on his operations overlay. These include routes of march, coordination points, waypoints, passage points, and boundaries for subordinate units. The commander retrieves digitized map data from the MCS-Light to analyze the terrain in his area of operations, and he relays this information to the tactical computers and LW systems. The tactical computers and LW systems display maps with current background terrain information automatically reflecting elevation, road networks, water obstacles, general vegetation, and built-up areas.

c. Digital maps and overlays provide the unit with a common picture of the terrain and operational graphics. However, commanders must maintain a paper map with an acetate operational graphics overlay in case of system failures. The POSNAV capabilities of the tactical computer and LW system are an enhancement to tactical navigation, not a replacement. Commanders, leaders, and soldiers must still navigate using basic land navigational and terrain orientation skills. If they cannot do this, then a system failure or a lag time in position updates will prove disastrous in combat.

d. The ASAS-Light receives information from JSTARS and UAVs, which pinpoint enemy locations on a real-time basis and relays that information through the FBCB2 to the tactical computer and LW system. This input, coupled with the locations of friendly units, provides a superb situational picture and continuous real-time battle tracking.

D-10. OFFENSIVE OPERATIONS
Digitization requires the following considerations during offensive operations.

a. During contact, commanders must not fight from their computers. The designated DTO should assume responsibility for monitoring and sending digital messages during the battle.

b. As the commander conducts a reconnaissance of the objective, he can use the LW system's digital terrain and operational graphics to place enemy icons where he sights the enemy during the reconnaissance. The feed from UAVs through the AMDWS helps

locate other enemy positions. The commander designates sectors of fire, inputs TRPs on the tactical computer, and sends this information digitally to his subordinate units.

c.   During movement, the commander uses his MCS-Light to interface with tactical computers and LW systems to determine accurate positions of friendly forces. The FBCB2, through tactical computers and LW systems, provides real-time information on the battalion's location, the location of other battalions and SBCT elements, the tactical situation, and the enemy. During movement, the leader ensures units navigate from waypoint to waypoint using basic land navigation skills supplemented by the tactical computer's digital navigation capability. The commander can quickly verify progress of elements he cannot see by glancing at his tactical computer or LW system's position updates. The commander can send new control measures and FRAGOs digitally to his subordinates over the tactical computer while a movement is in progress. As the assault element moves through the assault position, commanders should switch from using their tactical computers or LW systems to using conventional techniques for control and communications.

d.   Digitization allows units to establish security on or near the objective quickly by using the enhanced information-sharing capabilities of the tactical computers through the CSSCS. These assets enable units to assess and report the status of personnel, ammunition, supplies, and essential equipment. During consolidation, the commander monitors the tactical computer or LW system to determine that the units are in their positions according to the original plan and METT-TC. Once positioned to defend against an enemy counterattack, units create and send sector sketch information using their digital computers, LW systems, or both. This information allows the commander to verify the location and orientation of elements when the situation does not allow him to walk the entire security perimeter.

e.   During reorganization, commanders identify and report losses using their tactical computers or LW systems. Subordinate units update their personnel, ammunition, supply, and essential equipment status reports and send these updates through the next higher headquarters to the BSB. The BSB then consolidates these subordinate reports, updates, and status reports and forwards the requirements to the supporting headquarters for processing. Units then redistribute ammunition, personnel, equipment, and other mission-essential items based on the information obtained from the CSSCS status reports.

D-11. DEFENSIVE OPERATIONS
Digitization requires the following considerations during defensive operations.

a.   Defensive operations are usually a time management challenge. Digitization enhances the force's ability to manage time through information sharing without the need for travel to exchange hard copy information. The battalion commander and his subordinates use digital information to assist them in determining where and how best to employ their units in the defense using the MCS-Light. Additionally, they use digital situation updates to enhance their information dominance, reducing the possibility of the enemy striking at a time or place where the companies are unprepared. Each company should receive updated enemy situation reports depicting actual and suspected enemy locations from the AMDWS over the tactical computer or LW system. This occurs when the SBCT sends down enemy updates to the battalion tactical computer or LW system. The battalion commander then forwards this information to the companies.

b. As the battalion commander and staff prepare the defensive plan, they template the engagement area early in the planning process. They mark TRPs through the MCS-Light on the tactical computer or LW system's digital map to gain a better understanding of the limitations and constraints under which the battalion must operate during the mission. They then transmit these TRPs to subordinates using the tactical computer or LW system. The staff also templates friendly positions to identify proposed battle positions. They identify tentative positions on the tactical computer or LW system and disseminate them to subordinates as soon as possible to support concurrent planning. The battalion commander ensures that the rudiments of the proposed fire plan are placed on the tactical computer or LW system.

c. Regardless of the fire control technique used, the intended graphic control measures are marked on the MCS-Light, relayed to the tactical computer or LW system's digital maps, and disseminated to subordinates. During the construction of the engagement area, the company commanders mark the TRPs with thermal devices, denoting the sectors and quadrants. After making all adjustments and refinements, including platoon input to the company plan on the digital operational overlay, the company commanders send these digital adjustments to the battalion.

d. Each unit commander ensures he can communicate digitally with his subordinates, either over the tactical computer or, for dismounted elements, over the LW system. The battalion commander ensures that the battalion can communicate digitally with the SBCT FBCB2.

e. Once in position, the company commanders check their position locations on the tactical computer or LW system to ensure that they are complying with battalion digital graphics. As the battalion occupies its positions, the commander and staff monitor the position location update of each of the companies to ensure they are located in accordance with the plan. They note any discrepancies and send corrections digitally using the tactical computer or LW system. Company commanders also physically confirm that positions are properly occupied.

f. Once the company has established its defensive position, the commander uses the tactical computer to send accurate positions to his commander and adjacent units, ensuring that he includes the location of vehicle positions, obstacles, TRPs, and fire support targets. The battalion consolidates company and platoon positions and relays the information to the SBCT using FBCB2 graphics.

g. Subordinate units using tactical computers and LW systems prepare digital sector sketches. Digitization provides commanders and leaders a more accurate means for recording and sharing sector sketch data. Squad, section, and platoon leaders enter the same sector sketch data found on a standard handwritten sector sketch into their tactical computers or LW system computers. These sketches are then passed to adjacent units and up the chain of command, with each level summarizing the information for the next higher level.

h. Subordinate units depict their patrol routes and OP locations on the tactical computer or LW system and send them to the battalion CP. This assists in fratricide prevention and ensures that units throughout the battalion adhere to the S2 or S3's reconnaissance and security plan. Patrols and OPs use the tactical computer and LW system to aid them in looking and listening for the enemy. However, patrol leaders must not rely only on digital POSNAV to navigate because computer failure or lengthy time

delays between position updates could prove disastrous in combat. Subordinate commanders and leaders must ensure that soldiers use the tactical computer and LW system POSNAV as an enhancement to basic land navigational skills.

i.   Soldiers on patrol and at OPs should have their tactical computers or LW systems prepared to send a spot report as soon as they detect the enemy. These reports need to be passed quickly up the chain of command.

j.   Digitized equipment enhances the battalion platoons' abilities to fill the gaps in security between OPs. Coordination of patrols with higher and adjacent units is easier and more thorough. Subordinate units forward tentative patrol routes to the company commanders over the tactical computer or LW system. Subsequently, the team commanders forward the patrol routes to the battalion. This allows the S2 and S3 to ensure that all routes are coordinated for fratricide prevention and that the companies and platoons conform to the battalion reconnaissance and surveillance plan for the defense.

k.   Subordinates ensure that their OPs are digitally linked. Digital systems enhance the abilities of OPs to detect the enemy earlier and send more accurate reports. OPs use tactical computers or LW systems to send digital situation reports. Digital reports are better than FM radio transmissions because the OP can send them without violating noise discipline, and the receiving station is less likely to misinterpret the information if it is written. OPs should not be positioned outside of small-arms weapons range for force protection reasons.

l.   As the enemy attacks into the battalion sector, JSTARS and UAVs, if available, can track him while moving. As the ASAS-Light provides enemy information, the S2 can provide battle tracking of enemy movement. The FBCB2 should aid in displaying this intelligence information to each tactical computer and LW system. In this situation, the battlefield situational picture extends beyond the battalion commander to every soldier having these displays.

m.   In like manner, the real-time battle tracking of enemy and friendly forces that aids the situational picture greatly improves counterattack plans and the actual counterattack. Individual combat vehicles receive detailed information on the enemy before that enemy crosses the intervisibility line in their sector.

D-12.   SECURITY OPERATIONS
Digitization requires the following considerations during security operations.

a.   The battalion security element attempts to prevent or disrupt enemy reconnaissance efforts. First, when UAVs are available in sector, using them to battle track the enemy with ASAS-remote work station (ASAS-RWS) and FBCB2 makes it clear when reconnaissance units are likely to enter the security zone. By monitoring their tactical computers, subordinate units avoid mistaking friendly units for enemy forces.

b.   The impact of digitized battle tracking makes withdrawals to the main battle area safer. MBA elements can see the withdrawal route and other control measures on their tactical computers, LW systems, or both. The MBA units can observe the movement of the security force from the beginning until the completion of the withdrawal. Digitized battle tracking pinpoints the real-time location of the enemy.

D-13.   STABILITY AND SUPPORT OPERATIONS
Digitization requires the following considerations during stability and support operations.

a. **Maintaining Stability.** Stability operations usually consist of enforcing agreements using checkpoints and patrols in the battalion area of operations. The tactical computer and LW system can display specific checkpoint locations and the locations of moving patrols in the AO. Reaction forces can therefore gain a clear idea of the location of a force needing support and their own relative location in relationship to that force.

b. **Support Operations.** The battalion provides humanitarian or environmental assistance, often after a natural or manmade local disaster. Digitization equipment, especially GPS and POSNAV devices, assists in navigation where some local landmarks, including signs and roads, may be obliterated.

D-14. FIRE SUPPORT
Digitization requires the following considerations for fire support.

a. Digital enhancements can streamline both indirect fire support planning and calls for fire. Subordinates can receive the fire support overlay through the tactical computer or LW system. Calls for fire are preformatted in both the tactical computer and LW system, allowing digital calls for fire. Once a call for fire is entered into the digital net, it can go to any indirect fire asset operating on the net.

b. Digitization allows a faster response to requests for direct and indirect fire. Requests can be routed directly to the FSO's AFATDS to call for fire. Using the tactical computer or LW system, soldiers can call grid, polar, or shift-from-a-known-point fire missions using preformatted indirect fire requests. The tactical computer and LW system also assist soldiers in calling for fire because their POSNAV capability provides a precise grid location at a glance.

c. The company FSOs and the battalion FSO can clear the fire much faster because they have updated displays of all unit position locations on the digital display screen of their LW system or AFATDS computers. Company FSOs can clear fires quicker and more effectively because they can ensure they are not firing artillery or mortars at friendly troops.

d. The tactical computer allows the leader to add a new target icon when he adds a new target. Unit SOPs assign someone, such as the DTO, to delete unplanned targets after use. This is necessary to prevent screen clutter and the confusion that results from it. Digital enhancements allow any soldier in a tactical unit to call for indirect fire support using either the tactical computer or LW system. These systems allow leaders to use preplanned targets from the digital fire support graphics. The commander or leader simply calls up a particular target he wants fired and sends the firing data through the routing described above.

D-15. COMBAT SERVICE SUPPORT
Digitized enhancements make the processes of supply status reports, supply requests, medical evacuation, and maintenance operations more timely and accurate. The following considerations apply.

a. A CSS overlay on the tactical computer or LW system can depict resupply points, company and platoon casualty collection points, EPW collection points, company and battalion trains, cache sites, and main supply routes. The computer keeps an accurate status of all classes of supply and personnel based on updates from vehicle commanders and squad leaders. Reports are then "rolled up" and forwarded to higher command. Each

subordinate unit should establish an SOP to monitor and report its supply status digitally before, during, and after engagements. Resupply is timelier because of the tactical computer and LW system's POSNAV ability. This helps soldiers and medics locate resupply points, cache sites, supply routes, company trains, and battalion trains quickly.

b. Subordinate commanders and leaders should receive a digital display of the CSS overlay on their tactical computers and LW systems. As a minimum, this overlay should include resupply points, casualty collection points, EPW collection points, company trains and battalion trains locations, cache sites, and main supply routes.

c. Subordinate units begin each mission with an accurate supply status in their tactical computers or LW systems. As these units use supplies, the commander or leader updates his status using the tactical computer or LW system. As soldiers use supplies, they provide status updates to their leaders.

d. Regardless of the resupply technique, the resupply point is designated on the digital graphics, and the unit navigates directly to the resupply point. When supplies are pre-positioned, the digital graphics designate their location, and the unit can navigate directly to that location.

e. Digital enhancements aid units in conducting MEDEVAC. The tactical computer and LW system's POSNAV capability allows soldiers and MEDEVAC personnel to locate the CCPs and the BAS quickly. Commanders and leaders use their tactical computers to locate the CCPs so they can consolidate casualties. They can use the nine-line MEDEVAC request format preset in the computer to request MEDEVAC. Using the automated request ensures the requestor provides all the data the medics need and provides current position updates with the request. Using POSNAV to locate the CCP reduces the time required to find and evacuate the casualty. The unit should develop an SOP to determine who requests MEDEVAC and through what channels the request is routed. The unit SOP should specify how CCPs, casualties, and pickup zones are to be marked.

f. Digital enhancements also aid MEDEVAC personnel in medical procedures. For example, each medic can have access to a medical digital assistant (MDA), which is essentially a ruggedized laptop computer that stores and has access to medical data for treating patients. By using the MDA, the medic can pull up crucial treatment information in a matter of seconds to assist him in patient treatment.

D-16. MAINTENANCE

Proper equipment maintenance is essential for any unit conducting sustained operations. Commanders and leaders must ensure that soldiers maintain the unit's equipment properly. Digital equipment adds to the maintenance load. However, it also allows a unit to report identified deficiencies to battalion maintenance assets rapidly and accurately and enables the maintenance assets to respond more quickly and easily, reducing down time. If equipment is damaged or nonworking during the battle, the person responsible for maintenance can use his tactical computer to request maintenance assistance. Maintenance assets use their tactical computers or LW systems, along with POSNAV, to find and repair or evacuate equipment on the battlefield. The POSNAV capability of the tactical computer can direct the maintenance recovery vehicle to the exact location of the damaged vehicle.

D-17. TRAINING AND PERFORMANCE

The ability to accomplish unit tasks successfully lies in the training level of the soldiers and the leader's mastery of the leader tasks. The entire unit must learn new tactics, techniques, and procedures to acquire the full advantage of digitization.

a. Digitization's largest impact is on the commanders and leaders in the practice of command and control. There is new equipment for individual soldiers to learn. Integrating this new digitized equipment into the command and control process poses a challenging problem for future commanders and leaders.

b. Executing battle drills or any other type of operation using new digitized equipment and procedures at first seems more difficult and dangerous than existing methods. It is imperative that commanders, leaders, and soldiers understand both the advantages and the limiting factors of digitization and apply the advantages while overcoming the initial complicating difficulties. Adapting to digitization will be a continuing process for commanders as new equipment and processes are tested, proven, and fielded to combat units.

APPENDIX E

RISK MANAGEMENT AND FRATRICIDE AVOIDANCE

The primary objective of risk management and fratricide avoidance is to help units protect their combat power through risk reduction, enabling them to win the battle quickly and decisively with minimum losses. This appendix focuses on two topics: risk management and the avoidance of fratricide. Risk is the chance of injury or death for individuals and of damage to or loss of vehicles and equipment. Risk, or the potential for risk, is always present across the full-spectrum of operations. Risk management must take place at all levels of the chain of command during each phase of every operation; it is an integral part of planning. The SBCT commander, battalion commanders, staffs, company commanders, and all soldiers must know how to use risk management, coupled with fratricide avoidance measures, to ensure the battalion executes the mission in the safest possible environment within mission constraints. (For additional information on risk management, refer to FM 100-14.)

Section I. RISK MANAGEMENT

Risk management is the process of identifying and controlling hazards to conserve combat power and resources. Leaders (to include the staff) must always remember that the effectiveness of the process depends on their understanding of the situation. They should never approach risk management with "one size fits all" solutions to the risks their unit faces. They must consider the essential tactical and operational factors that make each situation unique. There are five steps of the risk management process. This five-step process is integrated into the military decision-making process (Table E-1, page E-2).

Military Decision-Making Process	Risk Management Steps				
	Step 1 Identify Hazards	**Step 2** Assess Hazards	**Step 3** Develop Controls and Make Risk Decisions	**Step 4** Implement Controls	**Step 5** Supervise and Evaluate
Mission Receipt	X				
Mission Analysis	X	X			
COA Development	X	X	X		
COA Analysis	X	X	X		
COA Comparison			X		
COA Approval			X		
Orders Production				X	
Rehearsal[1]	X	X	X	X	X
Execution and Assessment[1]	X	X	X	X	X
[1] All boxes are marked to emphasize the continued use of the risk management process throughout the mission.					

Table E-1. Risk management steps correlated with MDMP tasks.

E-1. STEP 1, IDENTIFY HAZARDS

A hazard is a source of danger. It is any existing or potential condition that could result in injury, illness, or death of personnel; damage to or loss of equipment and property; or some other form of mission degradation. Hazards arise in both tactical and training operations. Leaders must identify the hazards associated with all aspects and phases of the mission, paying particular attention to the factors of METT-TC. Risk management must never be an afterthought; leaders must begin the process during MDMP (troop-leading procedures for company and below) and continue it throughout the operation. Table E-2 lists possible sources of risk the battalion might face during a typical tactical operation. The list is organized according to the factors of METT-TC.

SOURCES OF BATTLEFIELD RISK
MISSION
Duration of the operation.
Complexity or clarity of the plan. (Is the plan well developed and easily understood?)
Proximity and number of maneuvering units.
ENEMY
Knowledge of the enemy situation.
Enemy capabilities.
Availability of time and resources to conduct reconnaissance.
TERRAIN AND WEATHER
Visibility conditions, including light, dust, fog, and smoke.
Precipitation and its effects on mobility.
Extreme heat or cold.
Additional natural hazards (broken ground, steep inclines, and water obstacles).
TROOPS and SUPPORT AVAILABLE
Equipment status.
Morale.
Experience units conducting the operation have working together.
Soldier and leader proficiency.
Soldier and leader rest situation.
Degree of acclimatization to environment.
Impact of new leaders and crewmembers.
TIME AVAILABLE
Time available for planning and rehearsals.
Time available to conduct the mission.
CIVIL CONSIDERATIONS
Applicable ROE and ROI.
Operations involving potential contact with civilians (such as NEO, refugee or disaster assistance, stability operations, support operations or counterterrorism).
Potential for media contacts or inquiries.

Table E-2. Examples of potential hazards.

E-2.   STEP 2, ASSESS HAZARDS TO DETERMINE RISKS

Hazard assessment is the process of determining the direct impact of each hazard on an operation (in the form of hazardous incidents). Use the following steps:

    a.   Determine which hazards can be eliminated or avoided.

    b.   Assess each hazard that cannot be eliminated or avoided to determine the probability that the hazard will occur.

    c.   Assess the severity of hazards that cannot be eliminated or avoided. Severity, defined as the result or outcome of a hazardous incident, is expressed by the degree of

injury or illness (including death), loss of or damage to equipment or property, environmental damage, or other mission-impairing factors (such as unfavorable publicity or loss of combat power).

d. Taking into account both the probability and severity of a hazard, determine the associated risk level (extremely high, high, moderate, or low). Table E-3 summarizes the four risk levels.

e. Based on the factors of hazard assessment (probability, severity, and risk level, as well as the operational factors unique to the situation), complete risk management worksheet. (Figure E-1 shows an example of a completed risk management worksheet.)

RISK LEVEL	MISSION EFFECTS
Extremely high (E)	Mission failure if hazardous incidents occur in execution.
High (H)	Significantly degraded mission capabilities in terms of required mission standards. Not accomplishing all parts of the mission or not completing the mission to standard (if hazards occur during mission).
Moderate (M)	Expected degraded mission capabilities in terms of required mission standards. Reduced mission capability (if hazards occur during the mission).
Low (L)	Expected losses have little or no impact on mission success.

Table E-3. Risk levels and impact on mission execution.

A. Mission or Task: Conduct a deliberate attack	B. Date/Time Group: Begin: 010035R May XX End: 010600R May XX		C. Date Prepared: 28 April XX		
D. Prepared By: (Rank, Last Name, Duty Position) CPT Smith, Cdr					
E. Task	F. Identify Hazard	G. Assess Hazard	H. Develop Controls	I. Determine Residual Risk	J. Implement Controls (How To)
Conduct obstacle breaching operations	Obstacles	High (H)	Develop and use obstacle reduction plan	Low (L)	Unit TSOP, OPORD, training handbook
	Inexperienced soldiers	High (H)	Additional training and supervision	Moderate (M)	Rehearsals, additional training
	Operating under limited visibility	Moderate (M)	Use NVDs, use IR markers on vehicles	Low (L)	Unit TSOP, OPORD
	Steep cliffs	High (H)	Rehearse using climbing ropes	Moderate (M)	FM 3-97.6, Military Mountaineering
	Insufficient planning time	High (H)	Plan and prepare concurrently	Moderate (M)	OPORD, Troop-leading procedures
K. Determine overall mission/task risk level after controls are implemented (circle one) LOW (L) MODERATE (M) HIGH (H) EXTREMELY HIGH (E)					

Figure E-1. Example of completed risk management worksheet.

E-3.   STEP 3, DEVELOP CONTROLS AND MAKE RISK DECISIONS

Step 3 consists of two substeps: develop controls and make risk decisions. This step is done during the COA development, COA analysis, COA comparison, and COA approval of the military decision-making process.

a.   **Develop Controls.** Controls are the procedures and considerations the unit uses to eliminate hazards or reduce their risk. After assessing each hazard, develop one or more controls that will either eliminate the hazard or reduce the risk (probability, severity, or both) of potential hazardous incidents. When developing controls, consider the reason for the hazard, not just the hazard itself.

b.   **Make Risk Decisions.** A key element in the process of making a risk decision is determining whether accepting the risk is justified or, conversely, is unnecessary. The decision-maker must compare and balance the risk against mission expectations, then decide if the controls are sufficient and acceptable and whether to accept the resulting residual risk. If the risk is determined unnecessary, the decision-maker directs the development of additional controls or alternative controls; as another option, he can modify, change, or reject the selected COA for the operation.

E-4.   STEP 4, IMPLEMENT CONTROLS

Implementing controls is the most important part of the risk management process. It is the chain of command's contribution to the safety of the unit. Implementing controls includes coordination and communication with appropriate superior, adjacent, and

subordinate units and with individuals executing the mission. The commander must ensure that specific controls are integrated into OPLANs, OPORDs, SOPs, and rehearsals. The critical check for this step is to ensure that controls are converted into clear, simple execution orders understood by all levels. If the leaders have conducted a thoughtful risk assessment, the controls will be easy to implement, enforce, and follow. Examples of risk management controls include the following:

- Thoroughly brief all aspects of the mission, including related hazards and controls, and ensure that subordinates know the plan.
- Allow adequate time for rehearsals at all levels.
- Drink plenty of water, eat well, and get as much sleep as possible (at least 4 hours in any 24-hour period).
- Enforce movement safety procedures.
- Establish recognizable visual signals and markers to distinguish maneuvering units.
- Enforce the use of ground guides in assembly areas and on dangerous terrain.
- Limit single-vehicle movement.
- Establish SOPs for the integration of new personnel.

E-5. STEP 5, SUPERVISE AND EVALUATE

During mission execution, leaders must ensure their subordinates properly understand and execute risk management controls. Leaders must continuously evaluate the unit's effectiveness in managing risks to gain insight into areas that need improvement.

a. **Supervision.** Leadership and unit discipline are the keys to ensuring implementation of effective risk management controls. All leaders are responsible for supervising mission rehearsals and execution to ensure standards and controls are enforced. In particular, NCOs must enforce established safety policies as well as controls developed for a specific operation or task. Techniques include spot checks, inspections, SITREPs, confirmation briefs, and supervision. During mission execution, leaders must continuously monitor risk management controls to determine whether they are effective and to modify them as necessary. Leaders must also anticipate, identify, and assess new hazards. They ensure that imminent danger issues are addressed on the spot and that ongoing planning and execution reflect changes in hazard conditions.

b. **Evaluation.** Whenever possible, the risk management process should also include an after-action review to assess unit performance in identifying risks and preventing hazardous situations. Leaders should then incorporate lessons learned from the process into unit SOPs and plans for future missions.

c. **Commanders Guidance.** The SBCT commander gives the company battalion commanders and staff direction, sets priorities, and establishes the command climate (values, attitudes, and beliefs). Successful preservation of combat power requires him to imbed risk management into individual behavior. To fulfill this commitment, the commander must exercise creative leadership, innovative planning, and careful management. Most importantly, he must demonstrate support for the risk management process. The commander and others in the chain of command can establish a command climate favorable to risk management integration by--

- Demonstrating consistent and sustained risk management behavior through leading by example and stressing active participation throughout the risk management process.
- Providing adequate resources for risk management. Every leader is responsible for obtaining the assets necessary to mitigate risk and for providing them to subordinate leaders.
- Understanding their own and their soldier's limitations, as well as their unit's capabilities.
- Allowing subordinates to make mistakes and learn from them.
- Preventing a "zero defects" mindset from creeping into the unit's culture.
- Demonstrating full confidence in subordinates' mastery of their trades and their ability to execute a chosen COA.
- Keeping subordinates informed.
- Listening to subordinates.

d. **Leader Responsibility.** For the commander, his subordinate leaders, and individual soldiers alike, responsibilities in managing risk include the following:

- Make informed risk decisions; establish and then clearly communicate risk decision criteria and guidance.
- Establish clear, feasible risk management policies and goals.
- Train the risk management process. Ensure that subordinates understand the who, what, when, where, and why of managing risk and how these factors apply to their situation and assigned responsibilities.
- Accurately evaluate the unit's effectiveness, as well as subordinates' execution of risk controls during the mission.
- Inform higher headquarters when risk levels exceed established limits.

Section II. FRATRICIDE AVOIDANCE

Fratricide avoidance is a complex problem defying simple solutions. Fratricide can be defined broadly as employing friendly weapons and munitions with the intent of killing the enemy or destroying his equipment or facilities but resulting in unforeseen and unintentional death or injury to friendly personnel. This section focuses on actions leaders can take to reduce the risk and occurrence of fratricide using current resources.

E-6.   MAGNITUDE OF THE PROBLEM

The modern battlefield is more lethal than any in history. The tempo of operations is rapid, and the nonlinear nature of the battlefield creates command and control challenges for unit leaders. The accuracy and lethality of modern weapons make it possible to engage and destroy targets at extended ranges. However, the ability of US forces to acquire targets using thermal imagery and other sophisticated sighting systems exceeds its capability to identify these targets accurately. Consequently, friendly elements can be engaged unintentionally and destroyed in a matter of seconds. Added to this is battlefield obscuration, which becomes a critical consideration whenever thermal sights are the primary source of target identification. Rain, dust, fog, smoke, and snow degrade identification capability by reducing the intensity and clarity of thermal images. On the battlefield, positive visual identification cannot be the sole engagement criteria at ranges

beyond 1,000 meters. An accurate COP is essential and must be maintained throughout any operation.

E-7.   RISK IDENTIFICATION AND PREVENTIVE MEASURES
Reduction of fratricide risk begins during the planning phase of an operation and continues through preparation and execution.

   a.   Leaders must consciously identify specific fratricide risk for any mission. Using this structured approach, commanders can predict the most likely causes of fratricide and take action to protect their soldiers. Whether used for an actual combat operation or a training event, this thought process complements the troop-leading procedures and analysis of METT-TC factors in planning.

   b.   The fratricide risk assessment matrix (Figure E-2) shows an approach to assess the relative risk of fratricide for combat maneuver. To assign a risk value to each direct cause of fratricide, pair the most critical METT-TC contributing factors associated with each cause. For each primary cause, favorable conditions lead to a lesser risk value, found in the cell on the left side of the corresponding sub-matrix. As a contributing factor becomes unfavorable, risk increases. The worst precondition for each kind of fratricide is represented by the risk value in the cell on the right side of the sub-matrix. Figure E-2 is an example of a fratricide risk assessment matrix that should be used in assessing every mission. For a detailed explanation of how to use this matrix, refer to Handbook No. 92-3, Fratricide Risk Assessment for Company Leadership, Section II, Fratricide Risk Assessment.

   c.   Risk identification must be conducted at all levels during each phase. The results must be clearly communicated up and down the chain of command so risk assessment can begin. The following paragraphs cover considerations influencing risk identification and focus on measures the leader can implement to make the identification process more effective and help prevent friendly fire incidents from occurring.

SITUATION AWARENESS

FIRE & MANEUVER CONTROL			RATING
DENSITY OF FORCES	CLARITY OF THE SITUATION		
	Maintain Force Seperation	Forces Converge	Forces Intermingle
Heavy	5	7	9
Normal	3	5	7
Sparse	1	3	5

FIRE DISTRIBUTION PLAN			RATING
PREP TIME REHEARSAL & DISSEMINATION	COLLECTIVE PROFICIENCY		
	Strong SOPs Hab Attchmnts	Mod Trained of Fam Tsk Org	Unseasoned & Unfam Tsk Org
Brief back Rehearsals	3	4	5
Reduced Force Rehearsals	2	3	4
Full Force Rehearsals	1	2	3

LAND NAVIGATION			RATING
EXTENT OF RECON & IPB	VISIBILITY & NAVIGATION DIFFICULTY		
	Ample Controls High Competence	Confidence With Much Effort	Very Difficult Low Confidence
Minimal	3	4	5
Limited	2	3	4
Extensive	1	2	3

FIRE CONTROL & BATTLE TRACKING			RATING
CLEARANCE OF FIRES	COMMO & CROSSTALK		
	Reliable Redundant	Adequate Means	Unreliable No Backups
Passive Only	21	23	25
Positive	1	3	5

BATTLEFIELD HAZARDS			RATING
USE OF ADD'L DUD-PRODUCING MUNITIONS	KNOWLEDGE OF EXISTING HAZARDS		
	Extensive	Partial	Extremely Limited
Unknown	3	4	5
Major	2	3	4
Minor	1	2	3

POSITIVE IDENTIFICATION

COMBAT IDENTIFICATION			RATING
ENGAGEMENT RANGES & FIELDS OF FIRE	VISIBILITY & NAVIGATION DIFFICULTY		
	Practiced Very Effective	Expedient Some-what Effective	Marginally Effective
ID Unlikely	3	6	7
Marginal ID	2	4	6
Optimal ID	1	2	5

DISCIPLINE

FIRE CONTROL DISCIPLINE			RATING
COMMAND & CONTROL OR SUPERVISION	CLARITY OF THE SITUATION		
	Complete & Effective	Complete Some-what Effective	Expedient Untested
Ad Hoc-Improvised	4	6	7
Attached	2	4	5
Organic	1	2	3

TROOPS

SOLDIER & LEADER PREPAREDNESS			RATING
MISSION-RELATED EXPERIENCE & COMPETENCE	SOLDIER & LEADER FATIGUE		
	Rested Low Exertion	Mod Rest & Exertion	Limited Rest High Exertion
Unseasoned	5	7	9
Moderate Experienced	3	5	7
Highly Experienced	1	3	5

LOW RISK	CAUTION	HIGH RISK	TOTAL
8 to 20	21 to 30	>30	

Figure E-2. Sample format, fratricide risk assessment matrix.

E-8. PLANNING PHASE

A thoroughly developed, clearly communicated, and completely understood plan helps minimize fratricide risk. The following factors affect the potential for fratricide in a given operation:

- Clarity of the enemy situation.
- Clarity of the friendly situation.
- Clarity of the commander's intent.
- Complexity of the operation.
- Planning time available at each level.

Graphics are a basic tool commanders at all levels use to clarify their intent, add precision to their concept, and communicate their plan to subordinates. Graphics can be a very useful tool in reducing the risk of fratricide. Each commander must understand the definitions and purposes of operational graphics and the techniques of their employment. (See FM 101-5-1 for the definitions of each type of graphic control measure.)

E-9. PREPARATION PHASE

Confirmation briefs and rehearsals are primary tools for identifying and reducing fratricide risk during the preparation phase. The following are considerations for their use:

a.   Confirmation briefs and rehearsals ensure subordinates know where fratricide risks exist and what to do to reduce or eliminate them.

b.   Briefbacks ensure subordinates understand the commander's intent. They often highlight areas of confusion or complexity or planning errors.

c.   The type of rehearsal conducted determines the types of risks identified.

d.   Rehearsals should extend to all levels of command and involve all key players.

e.   The following factors may reveal fratricide risks during rehearsals:

- Number and type of rehearsals.
- Training and proficiency levels of units and individuals.
- The habitual relationships between units conducting the operation.
- The physical readiness (endurance) of the troops conducting the operation.

E-10. EXECUTION PHASE

During execution, in-stride risk assessment and reaction can overcome unforeseen fratricide risk situations.

a.   The following are factors to consider when assessing fratricide risks:

- Intervisibility between adjacent units.
- Amount of battlefield obscuration.
- Ability or inability to identify targets positively.
- Similarities and differences in equipment, vehicles, and uniforms between friendly and enemy forces.
- Vehicle density on the battlefield.
- The tempo of the battle.

b.   Maintaining an awareness of the COP at all levels and at all times is another key to fratricide reduction as an operation progresses. Units develop and employ effective techniques and SOPs to aid leaders and soldiers in this process, to include--

- Monitoring the next higher radio net.
- Radio cross-talk between units.
- COP updates.
- Accurate position reporting and navigation.
- Training, use, and exchange of liaison officers.

E-11. FRATRICIDE REDUCTION MEASURES

The following measures provide a guide to actions that can reduce fratricide risk. Use of these measures is not required, nor are they intended to restrict initiative. Leaders should apply them as appropriate based on the specific situation and METT-TC factors.

a.   Identify and assess potential fratricide risks in the estimate of the situation. Express these risks in the OPORD or FRAGO.

b.   Maintain awareness of the current situation, focusing on areas such as current intelligence, unit locations and dispositions, denial areas (minefields and scatterable munitions), contaminated areas such as improved conventional munitions and NBC, SITREPs, and METT-TC factors.

c.   Ensure positive target identification. Review vehicle and weapon ID cards. Know at what ranges and under what conditions positive identification of friendly vehicles and weapons is possible.

d. Establish a command climate that stresses fratricide prevention. Enforce fratricide prevention measures and emphasize the use of doctrinally sound tactics, techniques, and procedures. Ensure constant supervision in the execution of orders and the performance of all tasks and missions to standard.

e. Recognize the signs of battlefield stress. Maintain unit cohesion by taking quick, effective action to alleviate it.

f. Conduct individual, leader, and collective (unit) training covering fratricide awareness, target identification and recognition, and fire discipline.

g. Develop a simple, decisive plan.

h. Give complete and concise mission orders.

i. Use SOPs that are consistent with doctrine to simplify mission orders. Periodically review and change SOPs as needed.

j. Strive for maximum planning time for you and your subordinates.

k. Use common language and vocabulary and doctrinally correct standard terminology and control measures, such as fire support coordination line, zone of engagement, and restrictive fire lines.

l. Ensure thorough coordination is conducted.

m. Plan for and establish effective communications (to include visual).

n. Plan for collocation of command posts whenever it is appropriate to the mission, such as during a passage of lines.

o. Designate and employ LNOs as appropriate.

p. Ensure rules of engagement are clear.

q. Include fratricide risk as a key factor in terrain analysis (OAKOC).

r. Conduct rehearsals whenever the situation allows time to do so.

s. Be in the right place at the right time. Use position location and navigation devices (GPS and POSNAV); know your location and the locations of adjacent units (left, right, leading, and follow-on) through use of FBCB2 and other means. Synchronize tactical movement.

t. Plan and brief OPSEC, especially when utilizing dismounted operations (challenge and password, sign and countersign).

u. Include discussion of fratricide incidents in after-action reports.

v. Ensure fire commands are accurate, concise, and clearly stated. Make it mandatory for soldiers to ask for clarification of any portion of the fire command that they do not completely understand.

w. Stress the importance of the chain of command in the fire control process; ensure soldiers get in the habit of obtaining target confirmation and permission to fire from their leaders before engaging targets they assume are enemy elements.

x. Know who will be in and around the area of operations.

E-12. FRATRICIDE RISK CONSIDERATIONS
Figure E-3, pages E-12 through E-14, parallels the five-paragraph OPORD and contains key factors and considerations in fratricide prevention. This is not a change to the OPORD format, but is a guide for use during OPORD development to ensure fratricide prevention measures are included. It is not a strict directive. The factors and considerations are listed where they would likely appear in the OPORD, but they may warrant evaluation during preparation of other paragraphs.

Task Organization:
- Has the unit worked under this task organization before?
- Are SOPs compatible with the task organization (especially with attached units)?
- Are special markings or signals (for example, cat's eyes, chemlites, or panels) needed for positive identification of uniforms and equipment?
- What special weapons and equipment are to be used? Do they look or sound like enemy weapons and equipment?

1. Situation.

a. *Enemy Forces.*

    (1) *Weather:*
- What are the expected visibility conditions (light data and precipitation) for the operation?
- What effects will rain, heat, and cold have on soldiers, weapons, and equipment?

    (2) *Terrain:*
- What is the topography and vegetation (urban, mountainous, hilly, rolling, flat, desert, swamp/marsh, prairie/steppe, jungle, or open woods) of the expected AO?
- Has the terrain been evaluated using the factors of OCOKA?

b. *Friendly Forces.*
- Among the allied or coalition forces, are there differences (or similarities with enemy forces) in language, uniform, and equipment that could increase fratricide risk during combined operations?
- Could differences in equipment and uniforms among US forces increase fratricide risk during joint operations?
- What differences in equipment and uniforms can leaders stress to help prevent fratricide?
- What is the friendly deception plan?
- What are the locations of your unit and adjacent units (left, right, leading, and follow-on)?
- What are the locations of neutrals and noncombatants?
- What are the locations of your own forces?
- What is the status of training activities?
- What are the levels of individual, crew, and unit proficiency?
- Will fatigue be a factor for friendly forces during the operation? Has an effective sleep plan been developed?
- Are friendly forces acclimated to the AO?
- What is the age (new, old, or mixed) and condition of equipment in friendly units?
- What is the status of new equipment training?
- What are the expected MOPP requirements for the operation?

c. *Attachments and Detachments.*
- Do attached elements understand pertinent information regarding enemy and friendly forces?
- Will gaining units provide this pertinent information to detached elements?
- Are communications systems compatible (digital/analog)?

Figure E-3. Fratricide prevention checklist

2. Mission. Do all elements clearly understand the mission and all associated tasks and purposes?

3. Execution.

a. *Concept of the Operation.*

   (1) *Maneuver:* Are main and supporting efforts identified?

   (2) *Fires (Direct and Indirect):*

- Are priorities of fires identified?
- Have target lists been developed?
- Have the fire execution matrix and overlay been developed?
- Have locations of denial areas (minefield and FASCAM) and contaminated areas (ICM and NBC) been identified?
- Are the locations of all supporting fire targets identified in the OPORD and OPLAN overlays?
- Are aviation and CAS targets clearly identified?
- Has the direct fire plan been developed?
- Have FPFs been designated?
- Are the requirements for accurate predicted fire met or do fire adjustments have to be made?

   (3) *Engineer Tasks:*

- Are friendly minefields, including FASCAM and ICM dud-contaminated areas, known?
- Have obstacles and the approximate time needed for reduction or breaching of each been identified?

   (4) *Tasks to Each Subordinate Unit:* Are friendly forces identified, as appropriate, for each subordinate maneuver element?

   (5) *Tasks to CS and CSS Units:* Have locations of friendly forces been reported to CS and CSS units?

b. *Coordinating Instructions.*

- Are rehearsals to be conducted? Are they necessary? Are direct and indirect fires included?
- Is a confirmation brief necessary?
- Are appropriate control measures clearly explained and illustrated in the OPORD and overlays? Have they been disseminated to everyone who has a need to know? What is the plan for using these control measures to synchronize the battle and prevent fratricide?
- Are the locations for division and corps slice elements in the brigade battlespace posted and disseminated?
- Have target and vehicle identification drills been practiced?
- Do subordinate units know the immediate action, drill, or signal for "CEASE FIRE" and "I AM FRIENDLY" if they come under unknown or friendly fire? Is there a backup?
- Is guidance in handling dud munitions, such as ICM and cluster bomb units (CBU), included?

Figure E-3. Fratricide prevention checklist (continued).

4. Service Support.
- Does everyone know trains locations and identification markings?
- Do medical and maintenance personnel know the routes between trains units?

5. Service Support.
a. *Command.*
- What are the locations of the commander and key staff members?
- What are the chain of command and the succession of command?

b. *Signal.*
- Do instructions include backup code words and visual signals for all special and emergency events?
- Do instructions cover how air assets identify friendly forces and how friendly forces identify friendly aircraft?
- Do they include backup code words and visual signals for all special and emergency events?
- Are SOI distributed to all units with a need to know, such as higher, lower, adjacent, leading, and follow-on elements?

Figure E-3. Fratricide prevention checklist (continued).

APPENDIX F
ENVIRONMENTAL CONCERNS AND COMPLIANCE

Preparation to conduct operations, in any environment, can incorporate the necessary environmental awareness with minimal additional planning. Many aspects of environmental protection discussed below will appear to be common sense and will most likely be a part of the SBCT's standing operational activity. This appendix will be a guide by which to attain a balance between mission accomplishment and protecting environmentally sensitive areas.

F-1. PREPARATION

Advanced preparation is key to successful mission completion, and the same holds true for environmental awareness and protection. The SBCT commander should be aware of the publications governing environmental protection. All SBCT staffs (company and above) should designate an environmental compliance officer/NCO to serve as the unit's point of contact (POC). This person will be responsible for environmental education, SOP updates, preparation of environmental risk assessments, and incident reporting. Commanders should refer to FM 3-100-4 for guidelines and procedures for applying risk management to identify actions that may harm the environment and steps that can be taken to minimize or prevent damage.

NOTE: FM 3-100.4 gives specific guidance on environmental protection and the SBCT commander should ensure compliance with that guidance. This appendix is intended to supplement, not replace, FM 3-100.4.

F-2. CONDUCT OF THE MISSION

Protecting the environment is always difficult and protecting the environment while conducting operations against a hostile force is not always possible. The SBCT must deploy and operate with minimal environmental damage. Commanders must initiate environmental control measures and establish appropriate protection levels without detracting from mission accomplishment. Environmental concerns pertaining to a mission should be incorporated into the mission briefing based on the factors of METT-TC (Table F-1, page F-2). Some of the factors affecting the briefing include mission, geographical location, and time of the year.

MISSION
1. Identify and assess known environmental risks during planning.
2. Determine environmental impact on mission execution.
3. Specify those areas to avoid and minimize the effect on the unit's scheme of maneuver.
4. Provide maps and or sketches with detailed areas of environmental concern.
5. Emphasize the importance of every soldier playing an active role in the identification and timely reporting of new environmental risk elements.
6. Rapidly and effectively respond to all hazardous waste accidents.
ENEMY
1. Identify areas of probable environmental contamination that could effect friendly force movement.
2. Evaluate intelligence reports of enemy equipment and or capability and how it could be employed against the environment.
3. Develop enemy target options to minimize environmental effects.
4. Maneuver enemy action away from environmentally sensitive areas, when feasible.
TERRAIN AND WEATHER
1. Provide recommended paths of movement to avoid environmentally sensitive areas.
2. Emphasize navigation accuracy and identify well defined terrain features.
3. Obtain and analyze predominant and developing weather patterns to diminish possible environmental risks.
TROOPS AND EQUIPMENT AVAILABLE
1. Develop a briefing for all soldiers that highlights and defines the environmental concerns and points of interest.
2. Provide a detailed and accurate SOP that identifies guidelines for avoiding risk areas while allowing for mission accomplishment.
3. Anticipate areas of probable risk and brief soldiers on how to prevent damage.
4. Incorporate environmental risk scenarios into rehearsals, if possible, to reinforce soldier response and promote the decision-making process to changing environmental risks.
5. Require accurate and timely reports that pertain to any environmental issues, friendly or enemy.
TIME
1. Maximize planning time and minimize complexity of mission brief.
2. Rehearse various mission profiles that emphasize adjusting for changing environmental factors while maintaining the desired momentum.
CIVIL CONSIDERATIONS
1. Avoid unnecessary damage and limit environmental impact to civil infrastructure due to the collateral damage of SBCT operations.
2. Determine how proposed SBCT actions will affect the civilian population in order to determine the "proportionality" of the environmental effects versus the mission benefit.
3. Evaluate what civil environmental factors the enemy may consider his HVTs and integrate this information into the plan.

Table F-1. Environmental risks based on factors of METT-TC.

F-3. RISK ASSESSMENT

The environmental risk assessment considerations contained in this appendix address the potential impact of the SBCT's mission on the environment. The SBCT commander adds other considerations to address local conditions or different mission activities. Using a scale of "0" (no probability of environmental damage) to "5" (extremely high probability of environmental damage), he rates the specific activities the SBCT will perform during an operation. The commander performs this evaluation for each of seven environmental areas. Using sound judgment, the commander considers the conditions under which the SBCT will operate. He then applies this value to the risk assessment matrix. Figure F-1 is an example of a risk assessment matrix and is formatted to allow local reproduction, as required. Refer to Figure F-2, page F-5, for an example of a completed matrix for the environmental area of air pollution. The values assigned are not absolute; different commanders will assign different ratings for the same activity--it is a judgment call based on the commander's assessment.

ENVIRONMENTAL AREA:		RATING			
UNIT ACTIVITY	RISK IMPACT (CIRCLE ONE NUMBER IN EACH ROW.)				
MOVEMENT OF HEAVY VEHICLES AND SYSTEMS	5	4	3	2	1	0
MOVEMENT OF PERSONNEL AND LIGHT VEHICLES/SYSTEMS	5	4	3	2	1	0
ACTIVITIES OF ASSEMBLY-AREA	5	4	3	2	1	0
FIELD MAINTENANCE OF EQUIPMENT	5	4	3	2	1	0
MAINTENANCE CONDUCTED IN LOCALLY CONSTRUCTED MAINTENANCE FACILITIES WITH HARD STAND	5	4	3	2	1	0

Figure F-1. Risk assessment matrix.

F-4. ENVIRONMENTAL FACTORS

Knowledge of environmental factors is key to planning and decision-making. With this knowledge, the SBCT commander can quantify risks, detect problem areas, reduce risk of injury or death, reduce property damage, and ensure compliance with environmental regulations. He should complete environmental risk assessments before conducting operations or logistical activities. The environmental risk assessment matrix provides a deliberate approach to assessing the risk posed by SBCT mission activities on specific environmental areas. (Figure F-2, page F-5, shows an example of a risk assessment for air pollution.) The matrix has four components:

- Environmental area.
- SBCT mission activities.

- Risk impact.
- Risk rating.

F-5.   ENVIRONMENTAL AREAS

The risk assessment matrix assesses risk in seven environmental areas. The SBCT commander and staff should develop one matrix for each. These areas are:

- Air pollution.
- Archeological, cultural, and historical resources.
- Hazardous materials and hazardous waste.
- Noise pollution.
- Threatened and endangered species.
- Water pollution.
- Soil, vegetation, and wetland protection.

F-6.   SBCT MISSION ACTIVITIES

The risk assessment matrix used in this manual considers five SBCT activities. These activities are generic, and the SBCT may modify them to meet its mission requirements and local conditions. These missions are:

- Movement of heavy vehicles and systems.
- Movement of personnel and light vehicles and systems.
- Activities of the assembly area.
- Field maintenance of equipment.
- Maintenance in locally constructed maintenance facilities with hard stand.

Examples of other activities the SBCT might add are:

- Direct and indirect weapons firing.
- Unexploded ordnance operations.
- Aviation support and operations.
- Medical support and operations.
- Mines and demolition.
- Obscurant operations.
- Waterborne or amphibious operations.
- Limited visibility operations.
- NBC operations.

F-7.   RISK IMPACT VALUE

The risk impact value estimates the probability that the SBCT's mission will have a negative impact on a particular environmental area. It is a judgment for which the numeric value (0-5) most closely reflects the conditions under which the SBCT is operating. The value is not an absolute, and different commanders might assign different values for the same mission. The risk impact value is a judgment call based on the assessment of the potential for environmental damage. The criteria shown in Figures F-5 through F-11, pages F-8 through F-14, help commanders evaluate the probability of occurrence. In filling out the matrix, the commander or staff officer circles the value selected for each operation (Figure F-2).

ENVIRONMENTAL AREA: **AIR POLLUTION**		RATING **15**			
UNIT ACTIVITY	**RISK IMPACT** (CIRCLE ONE NUMBER IN EACH ROW.)				
MOVEMENT OF HEAVY VEHICLES AND SYSTEMS	5	4	③	2	1	0
MOVEMENT OF PERSONNEL AND LIGHT VEHICLES/SYSTEMS	5	4	3	2	①	0
ACTIVITIES OF ASSEMBLY-AREA	⑤	4	3	2	1	0
FIELD MAINTENANCE OF EQUIPMENT	5	④	3	2	1	0
MAINTENANCE CONDUCTED IN LOCALLY CONSTRUCTED MAINTENANCE FACILITIES WITH HARD STAND	5	4	3	②	1	0

Figure F-2. Completed environmental risk assessment matrix.

F-8.   RISK RATING

The SBCT commander rates the risk for each environmental area (each matrix) by adding the circled risk impact values (Figure F-3, page F-6). A blank copy of the overall risk assessment graph is provided for photocopying (Figure F-12, page F-15). The SBCT commander develops a risk assessment of the entire mission by adding the risk ratings for the individual matrixes on one form. The overall environmental risk falls into one of four categories: low, medium, high, or extremely high (Figure F-4, page F-6). Activities with an extremely high probability of environmental damage require ARFOR/division approval.

	MOVEMENT OF HEAVY VEHICLES/SYSTEMS	MOVEMENT OF PERSONNEL AND LIGHT VEHICLES/SYSTEMS	ASSEMBLY AREA ACTIVITIES	FIELD MAINTENANCE OF EQUIPMENT	MAINTENANCE CONDUCTED IN LOCALLY CONSTRUCTED MAINTENANCE FACILITIES WITH HARD STAND	RISK RATING
AIR POLLUTION	3	1	5	4	2	15
ARCHEOLOGICAL AND HISTORICAL SITES	3	3	0	1	0	7
HAZARDOUS MATERIALS AND HAZARDOUS WASTE	2	1	1	2	0	6
NOISE POLLUTION	1	0	1	0	0	2
THREATENED AND ENDANGERED SPECIES	1	1	0	0	0	2
WATER POLLUTION	5	2	3	2	0	12
WETLAND PROTECTION	5	2	1	2	0	10
OVERALL RATING	20	10	11	11	2	54

Figure F-3. Overall risk assessment.

CATEGORY	RANGE	ENVIRONMENTAL DAMAGE	DECISION MAKER
LOW	0 - 58	LITTLE OR NONE	UNIT COMMANDER
MEDIUM	59 - 117	MINOR	NEXT HIGHER COMMAND
HIGH	118 - 149	SIGNIFICANT	ARFOR/DIVISION
EXTREMELY HIGH	150 - 175	SEVERE	ARFOR

Figure F-4. Overall environmental risk.

F-9.   RISK REDUCTION

The commander addresses each environmental area to reduce risks associated with the mission. While he considers all risk values above "0," he obviously spends more time on risk values of "5" than he does on those valued at "1." If the overall risk is low or medium, the commander will still review any areas rated high or extremely high. He should use his judgment in altering the mission to reduce the risk in this specific area. Many environmental

risk reduction measures are simply extensions of good management and leadership practices. Commanders can effectively manage environmental risks using the following six-steps.

    a. **Step 1**. Identify hazards to the environment during mission analysis. Consider all activities that may pollute air, soil, and water. Also consider activities that may degrade natural or cultural resources.

    b. **Step 2.** Assess the probability of environmental damage or violations with environmental risk assessment matrices.

    c. **Step 3**. Make decisions and develop measures to reduce high risks. Risk reduction measures can include:

- Rehearsals.
- Changing locations or times of operations.
- Increasing supervision.

    d. **Step 4.** Brief chain of command, staff, and appropriate decision-makers on proposed plans and residual risk.

    e. **Step 5.** Integrate environmental measures into plans, orders, SOPs, and rehearsals. Inform subordinates, down to individual soldier level, of risk reduction measures.

    f. **Step 6.** Supervise and enforce environmental standards. Hold those in charge accountable for environmental risk reduction.

F-10. RESIDUAL RISK

Even with all practicable risk reduction measures in place, some risk will remain. This residual risk requires leader attention. Unit commanders inform the chain of command and appropriate decision-makers of residual risk and its implications for the mission. They also inform their subordinates and focus command and control efforts onto those portions of the mission.

F-11. SUMMARY

Unit commanders use environmental risk assessment to estimate the potential impact of a mission on the environment. The environmental risk assessment will allow leaders and their staffs to identify potential environmental problems before they occur. The process also allows the commander to identify and manage residual risk.

Value	Contributing Factors
5	Current or forecasted weather conditions will contribute to brush fires (dry and windy).
	AO is susceptible to brush fires.
	AO lacks vegetation/pavement and is susceptible to dust formulation.
	Vehicles and equipment are not reliable or well maintained.
	Soldiers are not proficient/experienced in the mission being conducted.
	Command and control is marginal.
	Sustained high OPTEMPO operations are planned.
	Extensive use of external combustion equipment or explosives, incendiary devices, or flares is planned.
4	Current or forecasted weather conditions could contribute to brush fires.
	AO is susceptible to brush fires.
	AO is susceptible to moderate dust formulation.
	Soldiers lack environmental awareness.
	Some high OPTEMPO operations are planned.
	Some use of external combustion equipment explosives, incendiary devices, or flares is planned.
3	Weather is favorable for the mission; winds are within safe operating limits.
	AO is safe from brush fires.
	Soldiers are briefed on hazards of brush fires.
	Command and control is adequate.
2	AO is safe from brush fires.
	AO is not susceptible to dust formulation.
	Soldiers are briefed on hazards of brush fires.
	Soldiers are environmentally conscientious.
	Command and control is good.
1	AO is not susceptible to brush fires.
	Fires are limited, controlled, and allowed only in authorized areas.
	CS (riot-control chemical agent) and obscurants are strictly controlled.
	Vehicles and equipment are well maintained and in good operating order.
	Soldiers are environmentally conscientious.
	Soldiers are thoroughly familiar with fire restrictions.
	Command and control is excellent.
0	No risk/not applicable.

Figure F-5. Air pollution risk impact value.

Value	Contributing Factors
5	Low-visibility, night, or sustained high OPTEMPO operations are planned.
	AO has many archeological, cultural, or historic resources.
	Archeological, cultural, and historic resources are neither identified nor marked off limits.
	Command and control is marginal.
	Soldiers are not familiar with the AO.
4	AO has some archeological, cultural, and historic resources.
	Archeological, cultural, and historic sites are marked off limits.
	Limited visibility operations are planned.
	Command and control is adequate.
	Soldiers are not familiar with the AO.
3	Archeological, cultural, and historic sites are identified and marked off limits.
	Soldiers have been briefed on off limits sites in AO.
	No low-visibility or night operations are planned.
	Command and control is adequate.
2	Archeological, cultural, and historic sites are identified and marked off limits.
	No low-visibility or night operations are planned.
	Command and control is good.
	Soldiers are familiar with the AO.
1	Archeological, cultural, and historic sites are identified and marked off limits.
	Soldiers avoid sites during training, operations, and logistical activities.
	Soldiers are proactive in recognizing, safeguarding, and reporting signs or evidence of possible archeological artifacts or sites.
	Command and control is effective.
	Soldiers are thoroughly familiar with the AO.
	Current or forecasted weather conditions are not an adverse factor.
0	No risk/not applicable.

Figure F-6. Archeological, cultural, and historic resources risk impact value.

Value	Contributing Factors
5	Low-visibility, night, or sustained high OPTEMPO operations are planned.
	Operations are planned close to surface water sources.
	Current or forecasted weather conditions are harsh.
	Soldiers' experience with responding to HM or HW spills is limited or untested.
	Command and control is marginal.
	Soldiers lack environmental awareness.
4	Some high OPTEMPO operations are planned.
	Operations close to water sources are planned.
	Current or forecasted weather conditions are marginal.
	Some individuals are HM/HW qualified.
3	Soldiers are environmentally conscientious but not trained.
	Key HM/HW personnel are available during operations and maintenance activities.
	Adequate spill cleanup materials are available.
	Command and control is adequate.
	Current or forecasted weather conditions are not a factor.
2	Routine operations are planned (soldiers have adequate rest).
	Key HM/HW individuals will oversee high-risk HM/HW operations and maintenance activities.
	Soldiers are environmentally sensitive and HM/HW trained.
	Current or forecasted weather conditions are not a factor.
	Command and control is excellent.
1	Soldiers dealing with HM/HW are well trained and experienced.
	SBCT HM/HW SOP is current (includes accurate HM/HW inventory and location) and fire department is provided with this inventory and location of HM/HW.
	Command and control is excellent.
	HM/HW is transported according to SOP.
	Tempo of operations and maintenance is routine.
	AO is well maintained and unit maintains good housekeeping practices.
0	No risk/not applicable.

Figure F-7. Hazardous materials and hazardous waste risk impact value.

Value	Contributing Factors
5	Sustained high OPTEMPO operations are planned, with noise-generating equipment and activities (artillery, tracked vehicles, weapons firing, construction equipment, aircraft, power generation equipment).
	Operations are conducted in close proximity to the civilian populace.
	Command and control is marginal.
	Soldiers' proficiency in the operation being conducted is marginal.
	Soldiers lack environmental awareness.
	High OPTEMPO limited visibility operations are planned.
4	High OPTEMPO operations are planned with limited noise-generating activities (artillery, tracked vehicles, weapons firing, construction equipment, aircraft, power generation equipment).
	Command and control is adequate.
	Operations are conducted in close proximity to the civilian populace.
	Soldiers lack environmental awareness.
	Reduce levels of limited visibility operations are planned.
3	Level of noise-generating equipment is routine (wheeled vehicles, small generators, small arms fire).
	Civilian populace will be nominally affected.
	Command and control is adequate.
	Limited visibility operations may be conducted.
2	Level of noise generated is nominal.
	Command and control is good.
	Soldiers are environmentally conscientious.
	Limited visibility operations are not likely.
1	Minimum operations or maintenance activities are planned.
	Command and control is highly effective.
	Operations are conducted away from civilian populace.
	Limited visibility operations are not planned.
0	No risk/not applicable.

Figure F-8. Noise pollution risk impact value.

Value	Contributing Factors
5	Threatened and endangered species' habitats are not identified.
	Threatened and endangered species' habitats are not marked off as a restricted area.
	Command and control is marginal.
	Sustained low-visibility or night operations are planned.
	Sustained high OPTEMPO operations are planned.
	Soldiers are not familiar with the AO.
4	Threatened and endangered species' habitats are marked off.
	Limited visibility operations are planned, and the soldiers are inexperienced.
	Command and control is adequate.
	Soldiers are not familiar with the AO.
3	Threatened and endangered species' habitats are marked off.
	Soldiers are briefed on threatened and endangered species.
	Limited visibility operations are planned with experienced soldiers.
	Command and control is adequate.
2	Threatened and endangered species' habitats are identified.
	Threatened and endangered species' habitats are marked off.
	Limited visibility operations are not planned.
	Command and control is good.
	Soldiers are familiar with the AO.
1	Threatened and endangered species' habitats are identified.
	Soldiers know and recognize threatened and endangered species.
	Threatened and endangered species' habitats are marked off as restricted/off-limits areas.
	Soldiers avoid threatened and endangered species' habitats during operations (when possible based upon the factors of METT-TC), and logistical activities.
	Command and control is effective.
	Soldiers are thoroughly familiar with the AO.
0	No risk/not applicable.

Figure F-9. Threatened and endangered species risk impact value.

Value	Contributing Factors
5	Maneuver will cause significant terrain damage.
	Potential hazardous waste spills most likely will affect surface waters (wetlands, groundwater, streams, ditches, sewers, or drains).
	Limited visibility operations are planned.
	Soldiers' environmental proficiency is low.
	Command and control is marginal.
	Sustained high OPTEMPO operations are planned.
	Hazardous waste spill response is marginal or untested.
	Hazardous waste spill response material is not available.
4	Maneuver will cause some terrain damage.
	Potential spill hazard is minimal; will not affect surface waters, wetlands, groundwater, streams, ditches, sewers, or drains.
	High OPTEMPO operations are planned.
	Soldiers' environmental proficiency is somewhat low.
	Command and control is marginal.
3	Potential hazardous waste spill will pose no potential contamination of any water source.
	Routine operations are planned.
	Soldiers are environmentally sensitive.
	Command and control is adequate.
	Weather will not adversely affect operations.
2	Potential hazardous waste spill will pose no potential contamination of any water source.
	Routine operations are planned.
	Soldiers are environmentally sensitive.
	Command and control is good.
	Soldiers are trained in spill-response duties.
	Hazardous waste spill control material is readily available.
1	No potential for hazardous waste spill.
	Soldiers are very environmentally aware.
	Command and control is high.
	Soldiers maintain good housekeeping practices.
	Equipment is well maintained.
	Collection of maintenance wastes is managed properly.
0	No risk/not applicable.

Figure F-10. Water pollution risk impact value.

Value	Contributing Factors
5	Sustained high OPTEMPO operations are planned.
	Command and control is marginal.
	Current or forecasted weather conditions will cause operations to adversely affect wetlands.
	Soldiers lack environmental awareness.
	Soldiers' proficiency in the operation being conducted is marginal.
	Field service or maintenance may have to be done near wetlands.
	Hazardous waste spill response is marginal.
	Hazardous waste spill response materials are not available.
4	Limited visibility operations are planned.
	Command and control is adequate.
	Soldiers are not familiar with the AO.
	Soldiers lack environmental awareness.
	Field service or maintenance may have to be done near wetlands.
3	Soldiers have been briefed on susceptibility of wetlands to damage.
	Limited visibility or night operations are not planned.
	Command and control is adequate.
2	Soldiers are environmentally conscientious.
	Limited visibility operations are not planned.
	Command and control is good.
	Soldiers are familiar with the AO.
1	Maintenance is conducted only in approved areas.
	Wetland areas and boundaries are identified.
	No refueling will be conducted in wetland areas.
	Streams/ditches will be crossed at designated crossings sites.
	Command and control is excellent.
	Soldiers are environmentally conscientious.
	Soldiers are familiar with AO.
	Collection of maintenance wastes is managed properly.
0	No risk/not applicable.

Figure F-11. Wetland protection risk impact value.

	MOVEMENT OF HEAVY VEHICLES/SYSTEMS	MOVEMENT OF PERSONNEL AND LIGHT VEHICLES/SYSTEMS	ASSEMBLY AREA ACTIVITIES	FIELD MAINTENANCE OF EQUIPMENT	MAINTENANCE CONDUCTED IN LOCALLY CONSTRUCTED MAINTENANCE FACILITIES WITH HARD STAND	RISK RATING
AIR POLLUTION						
ARCHEOLOGICAL AND HISTORICAL SITES						
HAZARDOUS MATERIALS AND HAZARDOUS WASTE						
NOISE POLLUTION						
THREATENED AND ENDANGERED SPECIES						
WATER POLLUTION						
WETLAND PROTECTION						
OVERALL RATING						

Figure F-12. Overall risk assessment matrix.

APPENDIX G

ROAD MARCHES AND ASSEMBLY AREAS

The movement of troops from one location to another is inherent in any phase of a military operation. Mission accomplishment directly relates to the ability to arrive at the proper place, at the proper time, in effective condition, and in the formation best suited for the assigned mission. SBCT infantry battalions must conduct tactical road marches and assembly area operations to achieve their missions.

Section I. TACTICAL ROAD MARCH

The SBCT infantry battalion conducts two kinds of movement: administrative and tactical. An *administrative movement* considers tactical implications, but its primary emphasis is on expediting movement and conserving time and energy. Administrative movements are based on the assumption that contact with the enemy during or shortly after the move is unlikely. A *tactical road march* is a rapid movement used to relocate units in a combat zone in order to prepare for combat operations. 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 S3 is responsible for planning tactical road marches. The S4 has primary staff responsibility for planning administrative movements, but he coordinates his plans with all other staff members.

G-1. MARCH ELEMENTS

The elements of a road march include the march column, serial, and march unit.

   a. **March Column.** A march column includes all elements using the same route for a single movement under control of a single commander. A battalion may march over multiple routes to reduce closing time. A large march column may be composed of a number of subdivisions, each under the control of a subordinate commander.

   b. **Serial.** A serial is a subdivision of the march column. It consists of elements of a march column moving from one area over the same route at the same time. All the elements move to the same area and are grouped under a serial commander. A serial may be divided into two or more march units.

   c. **March Unit.** A march unit is the smallest subdivision of a march column and normally consists of no more than 25 vehicles using the same route for a single movement and under the control of a single commander. It is normally a squad, section, platoon, or company. It moves and halts under control of a single commander using voice and visual signals. It uses radio only when it can use no other means of communication.

   (1) *Prior to Executing the Movement.* Before starting a march, each march unit of a serial reconnoiters its route to the start point and determines the exact time to reach it. The movement order states the time the serial will arrive at and clear its start point. The serial commander then determines and announces the times for march units of his serial to arrive at and clear the start point. Arrival time at the start point is critical. Each march unit must arrive at and clear the start point on time; otherwise, movement of other elements may be delayed.

(2) ***During the Movement.*** During movement, march units move at the constant speed designated in the order, maintaining proper interval and column gap. Elements in a column of any length may simultaneously encounter many different types of routes and obstacles, resulting in different parts of the column moving at different speeds at the same time. This can produce an undesirable accordion-like action or whip effect. The movement order gives march speed, rate of march, and maximum catch-up speed. March units report crossing each control point as directed by the march order. They maintain air and ground security during the move.

G-2. MARCH COLUMN ORGANIZATION

March columns, regardless of size, are composed of four elements: reconnaissance party, quartering party, main body, and trail party. March columns are organized to maintain unit integrity and to maintain a task organization consistent with mission requirements. An element or a group of elements in a march column receives a numerical or alphabetical designation for planning, scheduling, and controlling.

   a. **Reconnaissance Party.** The reconnaissance party may be augmented by engineer and other CS assets. It performs route reconnaissance to determine travel time, capacities of underpasses and bridges, and locations of ferries and fords, and it identifies critical points, including choke points and obstacles. Route reconnaissance confirms and supplements data from map studies, higher headquarters, and air reconnaissance. Instructions to the reconnaissance party should state the nature and extent of information required and the time and place the report is to be submitted.

   b. **Quartering Party.** The quartering party normally consists of representatives from companies or attached units. It reconnoiters the new area, marking unit positions and guiding the march column elements into these new positions as they arrive. (See Section II for additional information on quartering party responsibilities when occupying an assembly area.)

   c. **Main Body.** March units of the main body consist of individual maneuver units with their trains, battalion mortars, any attachments, the battalion CP, and the battalion trains. POL vehicles required for refueling during nontactical marches may move ahead of schedule to establish a service station refuel point.

   d. **Trail Party.** The trail party normally consists of elements of the BSB, CRT, and medical support and is the march unit in a battalion serial. The function of the trail party is to recover disabled vehicles.

   (1) ***Mechanical Failures.*** If a vehicle cannot be repaired or towed, it is moved off the road and into a secure area. The drivers and crew members, supplied with sufficient food and water, remain with the vehicle. The CRT leader reports the location and reason for leaving the vehicle behind to the battalion S4.

   (2) ***Recovery.*** Once the trail party completes the road march, maintenance priority becomes the recovery of disabled vehicles. A tactical road march is not complete until all march units and vehicles arrive at the destination.

G-3. TECHNIQUES

The purpose of conducting a road march is to relocate rapidly, not to gain contact with the enemy. Road marches are performed at fixed speeds and during timed intervals. The road march must be organized to meet mission requirements and provide organizational

control. The three basic types of techniques are closed column, open column, and infiltration.

a. **Closed Column.** Closed column is normally used during limited visibility or on poorly marked or congested roads. It is characterized by vehicle intervals of 25 to 50 meters. This technique takes maximum advantage of the traffic capacity of the route but provides little dispersion of vehicles.

b. **Open Column.** In open column, the distance between vehicles is increased for greater dispersion. It is characterized by vehicle distance of approximately 50 to 200 meters; however, the factors of METT-TC determine actual dispersion. Open column is normally used during daylight but may be used at night with blackout lights or thermal vision equipment. Open column is normally used on well-marked routes with good visibility.

c. **Infiltration.** Infiltration has no defined structure. During a move by infiltration, vehicles are dispatched individually, in small groups, or at irregular intervals at a rate that keeps the traffic density down and prevents undue vehicle massing. Infiltration provides the best possible passive defense against enemy observation and attack. It is suited for tactical marches when sufficient time and road space are available and when maximum security, deception, and dispersion are desired or directed.

G-4. PLANNING CONSIDERATIONS

Road marches require extensive planning. Commanders and staff use the military decision-making process to determine how best to execute a move from one point to another. (Refer to FM 55-10 for a detailed discussion of movement planning considerations, terms, and movement time computation.)

a. **Factors for Consideration.** Consider the following factors in road march planning:

- Requirements for the movement.
- Organic and nonorganic movement capabilities.
- Unit movement priorities.
- Enemy situation and capabilities, terrain conditions, and weather.
- Organization of the battalion.
- Security measures before and during the movement and at the destination.
- Assembly of the march units.
- Actions at the destination.

b. **Sequence of Road March Planning.** When preparing for a tactical road march, the battalion uses the following sequence of march planning, as time permits:

(1) Prepare and issue an oral warning order as early as possible to allow subordinates time to prepare for the march.

(2) Analyze routes designated by higher headquarters and specify organization of the march serial.

(3) Prepare and issue the march order.

(4) Prepare a detailed movement plan and assembly area plan.

(5) Organize and dispatch reconnaissance and quartering parties as required.

G-5. MOVEMENT ORDER

The movement order format is the same for administrative and tactical movements, IAW FM 101-5. The movement order is prepared as an annex to an operation order, as a separate operation order, or as a FRAGO.

G-6. CONTROL MEASURES

The commander uses the control measures discussed in the following paragraphs to assist in controlling the battalion during the road march.

    a. **Graphics.** Road march graphics should include, at a minimum, the start point, release point, and route.

        (1) *Strip Map.* The battalion strip map should depict the following (Figure G-1).

- Start point.
- Release point.
- Scheduled halts.
- Convoy routes.
- Major cities and towns.
- Critical points and checkpoints.
- Distance between CPs.
- North orientation.

    (a) A start point is a well-defined point on a route at which movement of vehicles falls under the control of the movement commander. It is at this point that the column is formed by the successive passing, at an appointed time, of each of the elements comprising the column. The SP should be an easily recognizable point on the map or on the ground. It should be far enough from the assembly area to allow units to be organized and moving at the prescribed speed and interval when the SP is reached.

    (b) A release point is a well-defined point on a route at which the elements comprising a column return to the authority of their respective commanders. At the RP, each element continues its movement toward its own destination. Multiple movement routes from the RP enable units to disperse rapidly and navigate to their assembly areas or areas of operation.

    (c) Scheduled halts may be needed to provide rest, mess, refuel on the move sites, and maintenance. Dining and refueling halts should coincide if possible.

    (d) Critical points or checkpoints on a route are places used for information references, places where obstructions or interference with movement might occur, or places where timing may be a critical factor. They are also used as a control measure for control and maintenance of the schedule. Guides or signs may be used at designated critical points/checkpoints to ensure the smooth flow of movement.
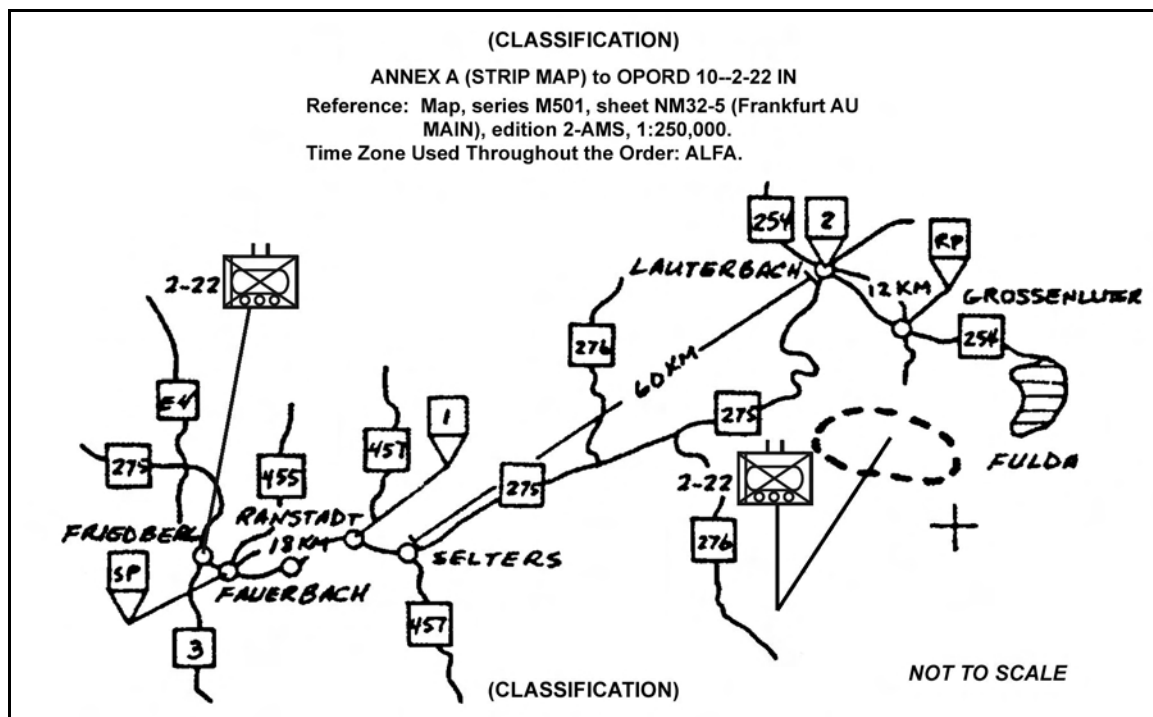
Figure G-1. Example battalion strip map.

(2) ***Digital Overlays.*** Digital overlays, which serve as a backup to maps with overlays, can provide valuable assistance for digitally equipped units. They display waypoints and other information concerning unit locations along the route of march, assisting the units not only in navigating accurately but also in maintaining current COP.

b. **Communications.** Messengers and visual signals are the preferred means of communication during road marches. Because the enemy has radio direction-finding equipment, the battalion uses radio only in emergencies and when it can use no other means of communication. The battalion can also use road guides to pass messages from one march unit to a following march unit. Because of the need to stay off the radio, road guides are important in controlling the speed of march units and the interval between them.

c. **Traffic Control.** The headquarters controlling the march may post road guides and traffic signs at designated traffic control points. At critical points, guides assist in creating a smooth flow of traffic along the march route. Military police, members of the SBCT infantry battalion reconnaissance platoon, or designated elements from the quartering party may serve as guides. They should have equipment or markers that will allow march elements to identify them in darkness or other limited visibility conditions. There is normally an RP for every echelon of command conducting the road march. Traffic problems may arise if actions at each of these points are not well rehearsed.

G-7. SECURITY
During the movement, march units maintain security through observation, weapons orientation, dispersion, and camouflage. Commanders assign sectors of observation to their personnel to maintain 360-degree observation. Main weapons are oriented on

specific sectors throughout the column. The lead elements cover the front, following elements cover alternate flanks, and the trail element covers the rear.

a. **Halts.** While taking part in a road march, the march elements must be prepared to conduct both scheduled and unscheduled halts.

(1) *Scheduled Halts.* Scheduled halts are planned along the march route for maintenance and rest or to follow higher level movement orders. At scheduled halts, vehicles and soldiers move to the side of the road while maintaining march dispersion. Local security is set up immediately, and drivers perform operations maintenance checks. The unit is ready to move at a moment's notice.

(2) *Unscheduled Halts.* Unscheduled halts and actions may be caused by unforeseen developments such as obstacles, traffic congestion, or equipment failure. If a halt is necessary, the march column's first priority is to establish security.

b. **Air Defense.** Planning for air defense and implementing all forms of air defense security measures are imperative to minimize the battalion's vulnerability to enemy air attack. The battalion commander must integrate his fire plans effectively with the attached air defense artillery assets. Furthermore, he must ensure the battalion plans and uses all passive and active air defense measures that can be implemented at company level. Each vehicle in a motor march has an air guard to provide air security. Specific vehicles may be designated as air guard vehicles performing air rather than ground observation.

c. **Obstacles.** The battalion should bypass obstacles reported by the reconnaissance platoon, if possible. If it cannot bypass obstacles, the lead march unit goes into a hasty defense to cover and overwatch and breaches the obstacle, working with engineers if available. As the lead march unit breaches the obstacles, the other march units move at decreased speed or move off the road and monitor the battalion command net.

d. **Enemy Indirect Fire.** Should the battalion come under attack by enemy indirect fire during the road march, the unit in contact continues to move. The remainder of the battalion attempts to bypass the impact area.

e. **Enemy Air Assault.** Should the battalion be attacked by hostile aircraft during the march, the march unit under attack moves off the road into a quick defensive posture and immediately engages the aircraft with all available automatic weapons. The rest of the battalion moves to covered and concealed areas until the engagement ends.

f. **Disabled Vehicles.** Disabled vehicles must not obstruct traffic. They are moved off the road and their status reported immediately. Security is established, and guides are posted to direct traffic. If the operator repairs the vehicle, it rejoins the rear of the column. If the operator cannot repair the vehicle, trail party maintenance elements pick it up.

g. **Restrictions.** Restrictions are points along the route of march where movement may be hindered or obstructed. These points can include bridges, intersections, ferries, and bypasses. The march planner should stagger start times or adjust speeds to compensate for restrictions, or he should plan to halt the column en route until the restriction is over.

h. **Limited Visibility.** Units must be able to operate routinely under limited visibility conditions caused by darkness, smoke, dust, fog, heavy rain, or heavy snow. Limited visibility decreases the speed of movement and increases the difficulty in navigating, recognizing checkpoints, and maintaining proper interval between units. To

overcome command and control problems caused by limited visibility, commanders may position themselves just behind lead elements. More restrictive control measures, such as additional checkpoints, phase lines, and use of a single route, may become necessary.

Section II. ASSEMBLY AREA OPERATIONS

An assembly area 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. Designation and occupation of an AA may be directed by a higher headquarters or by the unit commander during relief or withdrawal operations or unit movements.

G-8.   TYPES OF ASSEMBLY AREAS

The battalion may establish administrative or tactical assembly areas.

   a. **Administrative Assembly Areas.** Administrative AAs are established where the likelihood of enemy contact is remote and the commitment of the force from the AA directly to combat is not anticipated. Examples of administrative AAs include seaport debarkation, pre-positioned materiel marshaling areas, and AAs occupied by units in reserve to echelons above corps. Battalions may occupy administrative AAs alone or as part of a larger force.

   (1) Ideally, administrative AAs provide--
   - Concealment from air and ground observation.
   - Terrain masking of electromagnetic signal signature.
   - Sufficient area for unit and vehicle dispersion, consistent with the degree and type of rear area or air enemy present.
   - Hardstand areas for maintenance, vehicles, equipment, and supply storage.
   - Buildings for maintenance, billeting, mess, and headquarters. Optimally, buildings will have light, heat, and wire communications.
   - An area suitable for a utility helicopter landing zone.
   - Suitable entrances, exits, and internal routes. Ideally, unit personnel can easily secure entrances and exits.
   - Good drainage and soil conditions to support unit vehicle movement.

   (2) Administrative AAs are organized and occupied with an emphasis on unit integrity, ease of operation, C2, and efficient use of facilities. Tactical dispersion and protection from ground or air attack are lesser considerations in an administrative AA. Units are typically grouped tightly together and placed at lower readiness conditions.

   (3) Units that are occupying administrative AAs but that are not corps reserve are typically preparing to move forward to a tactical AA in preparation for employment in combat operations. Forces may occupy administrative AAs to await arrival of other units before moving forward.

   b. **Tactical Assembly Areas.** Tactical AAs are areas occupied by forces where enemy contact is likely and commitment of the unit directly from the AA to combat is possible or anticipated. Examples of units likely to be in tactical AAs include units designated as tactical reserves, units completing a rearward passage of lines, units preparing to move forward to execute a forward passage of lines followed by offensive

operations, units performing tactical movements, and units conducting reconstitution. Tactical AAs should provide--

- 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 C2 facilities.
- 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.

G-9.   ORGANIZATION

Battalion tactical AAs may be organized using one of three methods.

a.   **Method 1.** The battalion may occupy a portion of the perimeter of an SBCT AA. It does so by arraying companies, generally on a line oriented on avenues of approach into the AA. Leftmost and rightmost units tie in their fires and areas of observation with adjacent units of other battalions. Depending on the tactical situation and width of the area assigned to it, the battalion may maintain a reserve. Battalion trains are located to the rear of the companies. The battalion mortar platoon and the main CP are located centrally in the AA where they can communicate and support units by fire. The reconnaissance platoon screens along the most likely or most dangerous avenue of approach.

b.   **Method 2.** The battalion may assign sectors to subordinate companies and require them to tie in 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 reconnaissance platoon occupies observation posts at key points around the entire perimeter of the battalion or screens along the most dangerous or likely enemy avenue of approach. This method configures the battalion in a perimeter defense with companies oriented outward. This is the most common organization of battalion AAs.

c.   **Method 3.** The battalion 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 heavy mortar platoon establish positions central to outlying companies. If the battalion is dispersed over a large area, SHORAD assets (if available) may need to collocate with companies for adequate air defense.

G-10. QUARTERING PARTY

A quartering party is a group of unit representatives dispatched to a probable new site of operations to secure, reconnoiter, and organize an area before 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. Quartering

parties typically reconnoiter, to include NBC reconnaissance, and confirm the route and tentative locations previously selected from map reconnaissance. Quartering parties also serve as a liaison between their parent headquarters and the quartering party of their higher headquarters to change unit locations in the AA based on the results of their reconnaissance.

a. **Planning Considerations.** The S2 routinely receives intelligence information from SBCT headquarters throughout the battalion's deployment and operations. From this information, the S2 determines the characteristics and likelihood of the air and ground threat to the quartering party during its movement to and occupation of the AA. This information assists the battalion staff and the quartering party OIC in determining the mode of transportation and security required and the desirability of maintaining the quartering party in the AA during the movement of the rest of the battalion.

(1) The quartering party typically moves to the new AA by infiltration. For security, it may move with another subunit quartering party, depending on the likelihood of enemy contact. In this case, it may be necessary to move as a march unit of a road march if the number of vehicles exceeds local SOP restrictions on vehicular infiltration. Ideally, the quartering party moves over the routes to be used by the battalion and executes a route reconnaissance and time-distance check.

(2) The quartering party typically includes an OIC or noncommissioned officer in charge (NCOIC) and representatives from the battalion main CP, battalion trains, and the battalion's subunits. The S3 air, HHC XO, S1, S3 sergeant major (SGM), and CSM are potential quartering party leaders.

(3) Composition of maneuver company quartering parties is usually determined by the company commander but may be specified by the battalion commander. HHC representatives typically include NCOs from key support sections such as communications, CRT, or supply. Representatives from the mortar platoon and the reconnaissance platoon are also represented in the quartering party.

(4) The main CP quartering party identifies potential CP locations based on tactical requirements, such as cover and concealment and the line-of-sight signal requirements of FM radios.

(5) An alternative technique is to send the operation's CV with the quartering party to establish C2 while the battalion main body is moving. If planning time is short, key members of the staff can move with the quartering party. This enables the staff to begin detailed planning immediately upon arrival in the assembly area. This technique also facilitates transitions to new missions by pre-positioning key staff members so planning can occur concurrently with the movement of the main body.

(6) If the battalion moves and occupies its AA as part of an SBCT, the SBCT makes all coordinations for fire support. If the battalion moves and occupies the AA without FS planning by its higher headquarters, it conducts its own FS coordination.

(7) During its planning, the staff must determine combat service support requirements for the quartering party. The estimate of necessary supplies and equipment must cover the entire quartering party, including accompanying staff section representatives and CS and CSS assets.

(8) The quartering party may move under radio listening silence or other emission restrictive posture, especially during movement to tactical AAs.

b. **Preparation.** The quartering party OIC or NCOIC plans his operations through coordination with battalion staff officers.

(1) *Intelligence.* The S2 ensures the quartering party OIC/NCOIC is aware of the current enemy situation, probable enemy courses of action, the weather forecast, and the terrain and vegetation likely en route to and in the new AA.

(2) *Maneuver.* The OIC or NCOIC coordinates with the S3 to determine the mission of the quartering party, whether or not the quartering party is to remain in the AA and await the remainder of the battalion, and the route and movement restrictions to be used by the quartering party. The OIC or NCOIC ensures subordinate unit quartering parties know where and when the battalion quartering party will be located in the AA.

(3) *Engineer Support.* The battalion S3 determines whether sending engineer personnel with the quartering party for the reconnaissance and evaluation of routes, bridges, and cross-country mobility is recommended or required.

(4) *Air Defense.* Air defense units, when available, may move with the quartering party en route to and in the new tactical AA. If air defense assets move with the quartering party, the air defense unit leader ensures he knows both the current and projected future weapons control status (WCS) and air defense warning.

(5) *Command and Control.* After the OIC or NCOIC has completed his planning, he assembles the quartering party at a time and place of his choosing to brief them. This briefing follows the standard five-paragraph field order format. Emphasis is on actions at halts and critical areas, actions of the quartering party in the AA, contingency plans, and procedures to request and receive CS and CSS. He should cover in detail medical evacuation procedures, actions on contact, and actions to take if separated from the quartering party.

c. **Execution.** The following considerations apply to quartering party execution.

(1) *Maneuver.* The quartering party navigates by infiltration to the AA, generally along one route. If the quartering party moves along a route to be used by the main body and the main body has not yet sent a reconnaissance party forward, the quartering party conducts a route reconnaissance during its movement. The quartering party may also execute a time-distance check of the designated route. Driving the march speed of the battalion's main body march units, the OIC or NCOIC notes the time and actual vehicle odometer distances between the CPs along the route. He reports these times and distances to the main CP after moving through the RP.

(a) Upon arrival in the assembly area, the quartering party navigates to assigned positions and executes the required reconnaissance. The quartering party also has the following responsibilities at the AA:

- Determines locations for individual vehicles.
- Identifies unit left and right limits of fire, records this information, and sends updates to the unit's commander.
- Determines the location for the main CP and records it.
- Verifies subordinate unit locations and sectors of fire to ensure there are no gaps in coverage.
- Ensures necessary routes are cleared.
- Transmits changes or updates to the main CP to alert the main body to changes in the route and assembly area.

(b) If reconnaissance of proposed locations reveals the area is unsuitable for occupation, the quartering party OIC or NCOIC attempts to adjust unit locations in the area assigned. If such adjustments do not correct the problem, he immediately notifies the S3 or commander.

(c) If an element of the main CP has accompanied the quartering party, it moves to the location reconnoitered by its representative and establishes forward C2 for the battalion. If air defense assets have accompanied the quartering party, they occupy advantageous firing positions oriented on air avenues of approach. Representatives organize their respective areas by selecting and marking positions for vehicles and support facilities. If designated, guides move on order to preselected checkpoints or RPs to await main body march unit elements.

(d) If the battalion quartering party is not going to remain in the AA, it does not depart the AA until all subordinate unit quartering parties have reported. The unit quartering parties should provide the results of their reconnaissance and identify requested changes to their tentative locations.

(e) Each commander or unit leader must decide if and when guides are required to assist in occupying the assembly area. Normally, the use of guides is planned for occupations during periods of limited visibility.

(2) *Engineer Support.* In some cases, mobility support is required to repair or replace damaged bridging or roadways where no feasible bypass is available. Engineer units supporting the battalion may accompany the quartering party to execute mobility operations.

(3) *Combat Service Support.* CSS assets may accompany the quartering party. CSS elements generally conduct resupply and maintenance operations for the quartering party at scheduled halts or in the new AA.

G-11. OCCUPATION

Units position themselves in AAs in accordance with their parent unit's tentative plan. Quartering parties typically guide units into position. The units accomplish occupation smoothly from the march without halting or bunching of units at the RP. Subordinate units normally establish routes and separate SPs and RPs for march elements that extend from the march column's route or RP toward the march units' AA positions. This technique clears the route quickly, maintains march unit C2, and prevents bunching of units at the march column RP. The battalion begins movement to the assembly area with an updated movement route, specific coordinates for vehicle locations, and a confirmed defensive scheme for occupation of the assembly area. This enables the battalion to transition quickly from the road march into the actual occupation while maintaining overall security for the main body.

a. **Intelligence.** The S2 assists in planning the AA occupation by identifying enemy avenues of air and ground approach into the new AA and the degree and type of rear area threat to the battalion in its new location. The S2 also identifies and disseminates the security requirements for the battalion and begins preparing the reconnaissance and surveillance plan for the AA. In coordination with the S3, the S2 makes preliminary plans for reconnaissance and surveillance tasks to be assigned to subunits in the battalion, including the reconnaissance platoon.

b. **Maneuver.** The commander or S3 chooses a method for occupation (whole battalion AA or separate subunit AAs) and tentative subunit locations based on METT-TC. He then considers selecting tentative AA locations. To operate effectively in the AA, selected subunits may have specific positioning requirements, such as being near mess units, near water for decontamination, or on hardstand for maintenance. Based on METT-TC, the commander or S3 develops contingency plans that address the possibility of significant enemy contact in the AA. Time available and the likelihood of enemy contact determines the level of detail in contingency plans. These plans typically include fire support plans and alternate AAs or rally points in case the battalion is forced out of its initial AA.

c. **Fire Support.** Fire support requirements are coordinated with units already positioned near the new AA. Support shortfalls between requirements and availability are coordinated with either higher or adjacent units. Fire support planning includes support for battalion contingency plans in case of enemy ground contact.

d. **Engineer Support.** The type and extent of engineer support required in the AA depends on the anticipated length of stay, type and degree of enemy threat, terrain in the AA, and the follow-on mission of the battalion. The battalion is responsible for all mobility and survivability tasks in the AA.

e. **Air Defense.** Air defense planning, when available for the tactical AA, focuses on the selection of SHORAD firing positions that will allow the engagement of enemy aircraft along identified air avenues of approach. Depending on the commander's stated priority of protection, assets available, and task organization, air defense units may locate with supported battalion subunits or in separate locations under battalion control.

f. **Combat Service Support.** The S4 recommends CSS positioning and typically positions the combat trains near the battalion main CP. HHC support elements position themselves in relation to the battalion TOC and the mortar platoon.

g. **Command and Control.** The XO and S2 determine tentative locations for battalion C2 facilities from map or imagery reconnaissance based on METT-TC. The overriding consideration for selecting these locations is the ability of the various CPs to communicate higher, lower, and laterally. Establishing the main CP in the new AA should occur early in the occupation so subunit CPs can locate based on their requirement to communicate with the main CP.

G-12. ACTIONS IN THE ASSEMBLY AREA

The battalion focuses all actions in the AA on preparing for future operations to include resupply, personnel replacement, maintenance, reorganization, rest, and the planning of future operations.

a. The battalion initiates administrative personnel actions in the AA if time permits.

b. Maintenance activities concentrate on deadline faults and those degrading the unit's ability to shoot, move, and communicate. The unit pays special attention to those maintenance tasks that are too time-consuming or difficult to perform during combat operations.

c. The units conduct resupply actions in the AA to replenish items used in previous operations, to assemble stocks for future operations, and to replace damaged and contaminated supplies as required. Refueling during the move to the AA is easier and faster than refueling after arrival in the AA.

d.   The unit conducts planning and preparation for future operations concurrently with maintenance and administrative activities.

e.   The unit may require training if issued new or modified equipment while in the AA. Small unit training may be necessary if large numbers of replacement personnel are introduced into the unit, especially if significant numbers of key leaders are replaced.

G-13.   SECURITY

Security comprises measures taken by a military unit to protect itself against surprise, observation, detection, interference, espionage, sabotage, or annoyance that may impair its effectiveness. Security is essential to the protection and conservation of combat power. It may be achieved by establishing and maintaining protective measures or through deception operations designed to confuse and dissipate enemy attempts to interfere with the force being secured. Effective security prevents the enemy from gaining an unexpected advantage over friendly forces.

a.   **Security in the AA.** Forces in tactical AAs are provided a degree of security by their separation from the line of contact and by the presence of other units between them and the enemy. In corps and division rear areas, security is provided through rear battle contingency plans. If the AA is well forward, security is provided by proximity to other combat or CS units. In keeping with their mission and the tactical situation, units in tactical AAs employ active security measures. These measures include reconnaissance and patrolling, visual and electronic surveillance of ground and air avenues of approach, and establishment of OPs. Regardless of the security that may be provided by other units or agencies, the commander takes whatever actions or precautions he deems necessary to secure his command.

b.   **Positioning of Companies.** The battalion positions companies with respect to avenues of approach and access routes into the AA. Companies tie in their fires, observation, and patrolling with one another. This is fairly simple for the battalion because the companies typically occupy a portion of a battalion perimeter and are immediately adjacent to another company. Companies exchange sector sketches, fire plans, and patrolling plans with adjacent units.

c.   **Positioning of the Reconnaissance Platoon.** The reconnaissance platoon may be positioned in one of three ways to enhance the security of the battalion. It can form a screen astride the most likely or dangerous avenue of approach; it can establish several temporary OPs and conduct patrols between them to provide a thin screen line that surrounds the entire AA; or it can be positioned to observe an area that cannot be seen by other units in the AA. Companies may also be repositioned to observe these areas. GSRs and surveillance assets allocated from the SBCT are either retained under battalion control or, more typically, attached to the reconnaissance platoon.

d.   **OPSEC.** The battalion practices the usual OPSEC measures to enhance the security of the unit while in the AA. OPSEC includes active and passive measures that attempt to deny the enemy information about friendly forces. Units in the battalion practice noise and light discipline, employ effective camouflage, and eliminate or reduce radio traffic. Other electronic transmissions such as jammers and radar are also restricted. Units may construct and employ unidirectional antennas to reduce electronic signatures.

e.   **Noncombatants.** Movement of civilians and refugees near AAs is strictly controlled to prevent enemy sympathizers or covert agents from obtaining information

about the battalion. Units may remove unit markings and uniform patches in some cases to retain unit anonymity. When possible, the unit conducts rehearsals in areas not subject to enemy observation and performs extensive movements and resupply under limited visibility. OPSEC measures vary because of higher headquarters deception efforts.

f. **Reconnaissance and Surveillance Plan.** The battalion reconnaissance and surveillance plan directs the employment of intelligence assets under battalion control and assigns intelligence and security tasks to subordinate units. Companies typically provide security patrols to their fronts and establish OPs in accordance with the reconnaissance and surveillance plan. The reconnaissance platoon also conducts reconnaissance and security tasks in accordance with the reconnaissance and surveillance plan. Patrols may be established to maintain contact between units when companies occupy separate AAs.

G-14. DEPARTURE FROM THE ASSEMBLY AREA
The planning considerations for occupying the AA are based largely on the anticipated future missions of units. Units are positioned in the AA so they can depart the AA en route to their assigned tactical missions without countermarching or moving through another unit.

a. **Placement of SP.** Units departing the AA must hit the SP at the correct interval and speed. To achieve this, the SP must be located a sufficient distance from the AA to allow units to maneuver out of their positions and configure for the road march before reaching the SP. The SP for a battalion movement should be located an adequate distance from the AA to permit the companies to attain proper speed and interval before crossing it.

b. **LNOs.** When unit-to-unit dispersion or terrain in the AA prohibits visual contact, LNOs maintain contact between departing units and return to their parent units to initiate movement at the correct time.

APPENDIX H

AVIATION SUPPORT OF GROUND OPERATIONS

Army aviation's greatest contribution to the battlefield is providing the ground maneuver commander the ability to apply decisive combat power at critical times virtually anywhere on the battlefield. This combat power may be in the form of direct fire support from aviation maneuver units or the insertion of overwhelming infantry forces or artillery fires delivered via air assault. This versatility gives the maneuver commander a decisive advantage on the battlefield. Ground maneuver commanders synchronize aviation maneuver with ground maneuver to enhance offensive and defensive operations. This synchronization allows the ground maneuver commander to shape the battlefield and to influence events throughout his AO.

H-1. ARMY AVIATION MISSIONS

Aviation units operate within the framework of the ground regime. As a fully integrated member of the combined arms team, aviation units conduct combat, combat support, and combat service support operations 24 hours a day across the entire length and breadth of the AO.

a. **Combat Missions.** Aviation combat missions include--
- Reconnaissance and surveillance.
- Security.
- Attack.
- Escort of air assault or air movement aircraft.
- Special operations.
- Theater missile defense (TMD).
- Attack by fire and support by fire.

b. **Combat Support Missions.** Aviation CS missions consist of the operational support and sustainment provided to forces in combat by aviation units. These include--
- Command, control, communications, and intelligence (C3I).
- Air assault.
- Air movement.
- Aerial mine warfare (Volcano).
- Air traffic services (ATS).

c. **Combat Service Support Missions.** Aviation CSS missions consist of the assistance provided by aviation forces to sustain combat forces. These include--
- Aerial sustainment.
- Casualty evacuation.

d. **Other Attack Helicopter Missions.** In addition to the missions listed above, attack helicopters may be called on to perform some additional, nontraditional roles. This is particularly true during support operations or stability operations. Additional missions may include the following:

- Assisting, for limited periods, in the control and coordination of fires with the maneuver of ground forces.
- Providing limited relay of radio messages from isolated ground units.
- Marking or identifying specific buildings and areas by smoke, fires, or targeting lasers.
- Videotaping routes or objectives for later analysis by ground commanders.
- Providing navigational and directional assistance to ground units.
- Providing limited area illumination by infrared or white light using either on-board sources or illumination rockets.

e. **Other Lift/Cargo Helicopter Missions.** In addition to the missions listed above, lift/cargo helicopters may be called on to emplace large or heavy obstacles such as abandoned vehicles and concrete dividers.

H-2. OFFENSIVE OPERATIONS

Aviation assets contribute during offensive operations by assisting the ground maneuver commander in finding, fixing, and engaging the enemy.

a. **Movement to Contact.** During movement to contact operations, aviation assets can find, fix, and destroy the enemy. This allows the maneuver commander to focus on finding the enemy in an expedited manner, thus allowing him to develop the situation early without premature deployment of the main body.

(1) AH-64 Apache and OH-58D helicopters are extremely effective during movement to contact operations due to their night-vision capabilities.

(2) During movement to contact operations, aviation assets may perform additional tasks, to include--

- Conducting armed reconnaissance or reconnaissance in force to gain and maintain enemy contact.
- Screening the front, flank, or rear of the ground maneuver unit.
- Acting as the rapid reaction force to conduct hasty attacks during a meeting engagement.
- Providing suppressive fires to allow for disengagement of friendly forces.
- Conducting air movements for resupply.
- Conducting CASEVAC, if necessary.

b. **Attack.** During attack operations, aviation assets can assist the ground maneuver commander in destroying targets in the close or deep fight. The commander may employ aviation assets to--

- Provide direct and indirect fires.
- Overwatch assault objectives.
- Attack the enemy's flank or rear to divert his attention away from the main or supporting attack.
- Conduct forward, flank, or rear screening.
- Act as the TCF for rear operations.
- Attack deep to destroy follow-on echelons or reserves.
- Conduct air assaults to seize key terrain.
- Conduct air movement of REMBASS equipment to assist in enemy detection.
- Provide air assault security.

- Conduct CASEVAC operations.
- Conduct reconnaissance operations.
- Conduct deception operations to prevent detection of the ground maneuver force.
- Enhance C2 by providing an aerial platform for commanders.
- Provide pinpoint laser guidance for artillery fires.
- Conduct air movements for resupply.

c. **Exploitation.** During exploitation operations, aviation assets can assist the ground maneuver commander in maintaining the momentum gained by the attacking forces. The commander may employ aviation assets to--

- Attack the enemy's flanks and rear to maintain constant pressure on the defeated force.
- Attack rear area C2 and CSS assets.
- Act as reserve to blunt any counterattacks or to provide the decisive blow by attacking to destroy lucrative targets.
- Screen vulnerable flanks.
- Conduct air assaults to seize key terrain and maintain momentum.
- Provide air assault security.
- Conduct CASEVAC operations.
- Enhance C2 by providing an aerial platform for commanders.
- Provide pinpoint laser guidance for artillery fires.
- Conduct air movements for resupply.

d. **Pursuit.** As the success of the exploitation develops, the speed of Army aviation is ideally suited to maintain enemy contact, develop the situation, and deliver precision fires on enemy areas of resistance. The commander may employ aviation assets to--

- Attack to destroy, disrupt, or attrit counterattacking or reserve forces.
- Attack to fix withdrawing forces.
- Screen pursuing ground maneuver forces.
- Conduct air assaults to seize key terrain.
- Conduct air movement operations to resupply committed forces rapidly and maintain the momentum.
- Conduct CASEVAC operations.
- Enhance C2 by providing an aerial platform for the commander.
- Provide pinpoint laser guidance for artillery fires.
- Conduct air movements for resupply.

e. **Aircraft Power Limitations and Time on Station.** The need to deliver hovering fires from temporary battle positions may require the aircraft to carry less than a full load of munitions or fuel. This is especially true in hot climates and high altitudes. Reduced loads mean more frequent trips to forward area refuel and rearm points and less time on station. Long route distances during air movements may require the establishment of forward arming and refuel points along the route prior to operations. Climate will also affect the number of troops or amount of supplies the aircraft can transport.

H-3.   DEFENSIVE OPERATIONS

During defensive operations, the speed and mobility of aviation assets can help maximize concentration and flexibility.

a.   **Area Defense.** During an area defense, aviation assets can support the ground maneuver commander's preparation and defensive efforts. The ground maneuver commander may employ aviation to--

- Attack to fix enemy forces in the security zone.
- Screen during ground movement.
- Conduct reconnaissance, counterreconnaissance, and security operations, especially at night.
- Conduct air movement operations.
- Conduct CASEVAC operations.
- Emplace minefields using the Volcano mine system.
- Enhance C2 by providing an aerial platform for commanders.
- Provide pinpoint laser guidance for artillery fires.
- Conduct air movements for resupply.

b.   **Mobile Defense.** During a mobile defense, aviation assets can work in conjunction with ground maneuver forces to create a more lethal striking force to bring simultaneous fires to bear upon the enemy from unexpected directions. In a mobile defense, the ground maneuver commander may employ aviation to--

- Attack to fix enemy forces in the security zone.
- Screen during ground movement.
- Conduct reconnaissance, counterreconnaissance, and security operations, especially at night.
- Conduct air movement operations.
- Conduct CASEVAC operations.
- Emplace minefields using the Volcano mine system.
- Enhance C2 by providing an aerial platform for commanders.
- Provide pinpoint laser guidance for artillery fires.
- Conduct air movements for resupply.

H-4.   SECURITY, RECONNAISSANCE, AND SURVEILLANCE OPERATIONS

Reconnaissance operations are conducted to obtain information about the enemy or the physical makeup of a particular area by visual or other detection methods. Successful reconnaissance collects quick, accurate information about the enemy and terrain. The purposes of security operations are to provide early and accurate warning of enemy operations, to provide the protected force with time and maneuver space to react to the enemy, and to develop the situation to allow the commander to employ the protected force effectively. Units may conduct these operations to the front, flanks, or rear of a larger force. Security operations provide reaction time, maneuver space, and protection to the main body.

a.   **Reconnaissance and Surveillance Operations.** The use of mounted, dismounted, and aerial techniques designed as part of a focused collection effort greatly enhance reconnaissance and surveillance operations. Integrated air and ground reconnaissance and surveillance operations provide not only an increased tempo but also

provide the ground maneuver commander with depth and flexibility he might not otherwise have. Aviation assets support the collection effort by conducting route, zone and area reconnaissance and surveillance of selected NAIs or TAIs for the ground maneuver commander.

(1) ***Route Reconnaissance.*** A route reconnaissance may be conducted to gain information on a specific route or axis of advance that is important to the commander's scheme of maneuver (Figure H-1, page H-6). The ground maneuver commander may employ aviation assets alone or in conjunction with ground forces to conduct a route reconnaissance. Aviation assets greatly enhance the speed at which information is processed concerning the capability and security of routes so that they can be utilized to support combat operations. Integration of ground forces with aviation forces enables the ground maneuver commander to gain information on numerous routes in an expedited manner.

AIR-GROUND INTEGRATION ROUTE RECONNAISSANCE

- As an AGT, a GCT and an ACT conduct coordinated route reconnaissance operations.

- The ACT establishes a platoon boundary to separate the zone.

- The ACT operates with two teams conducting bounding overwatch with the commander's team back.

- Checkpoints, NAIs, and PLs are used to identify critical reconnaissance objectives and to control maneuver.

- ACTs reconnoiter adjacent terrain/routes, BUAs, ford sites, provide security, and assist the maneuver of the ground scout platoons. The ACTs are operating on the ground platoon internal networks.

- The ACT commander cross talks with the GCT commander on the GCT command network to coordinate the reconnaissance effort. The ACT commander conducts face-to-face cross talk (as required) and assists the GCT commander with C2.

- The ACT is primarily force oriented, focused on security and hasty route reconnaissance, while the GCT conducts a deliberate route reconnaissance.

- The ACT provides far side security, locates bypasses, and provides early warning to the GCT at chokepoints and obstacles.

- During actions on contact the ACT conducts target handover to the GCT and develops the situation to the flanks and forward of the GCT.

- To maintain tempo and maximum reconnaissance forward, the ACT commander's team temporarily relieves forward ACTs for FARP rotation. As the commander's team rotates to the FARP, the senior platoon leader takes over C2 for the ACT.

- GCT mortar section positions in the center of the zone to provide suppressive fires for the forward ACTs.

Figure H-1. Route reconnaissance.

(2) *Zone Reconnaissance*. Since a zone reconnaissance is a directed effort to obtain detailed information concerning all routes, obstacles, terrain, and enemy forces within a defined zone, the ground maneuver commander may employ aviation assets to support a zone reconnaissance (Figure H-2, page H-8 and Figure H-3, page H-9). Mechanized units supported by aviation assets can perform a zone reconnaissance much faster than

nonmechanized units. During a zone reconnaissance, the ground maneuver commander may form air-ground teams to conduct operations. The aviation assets can accelerate the reconnaissance by reconnoitering any open terrain; by reconnoitering forward of moving ground forces; can screen the flank of ground maneuver forces; or can orient totally on finding, fixing, and destroying enemy forces. Employing aviation assets to support zone reconnaissance operations frees ground maneuver forces to focus on close terrain, routes, and reconnaissance of obstacles and enemy. When air and ground force efforts are integrated, the SBCT commander is capable of developing the situation much faster than without such integration.

AIR-GROUND INTEGRATION ZONE RECONNAISSANCE
TECHNIQUE #1

- As an AGT, a GCT and an ACT conduct a coordinated zone reconnaissance.

- The ACT establishes a platoon boundary, with troop, platoon, and team graphics to facilitate C2.

- PLs, OPs, checkpoints, NAIs, and TIRS are used to control movement and focus the reconnaissance effort.

- The ACT operates with three teams, two in zone conducting bounding overwatch with the third as a ROS team.

- FARP rotations are conducted by team. If METT-TC forces the teams to conduct internal FARP rotations, the zone reconnaissance effort stops, and the ACT establishes a screen.

- The troop commander operates independent of the the ACTs to better facilitate C2.

- When working as part of an AGT, the reconnaissance effort for the ACT is usually force oriented versus terrain oriented.

- The ACTs move forward of the GCT, focusing on key terrain, routes in zone, bypass of obstacles, and maintaining contact with large enemy formations.

- Bypass criteria must be clearly defined. The ACT must not become decisively engaged by ancillary enemy forces and distracted from its primary reconnaissance focus.

- During actions on contact, the ACT develops the situation, conducts a target handover with the GCT, and continues the reconnaissance effort.

- The ACT commander passes spot reports to the GCT commander on the GCT command network.

- Once the ACT reaches the LOA, it establishes and maintains a screen until relieved by the squadron or the GCT. An ALOA forward of the LOA may be used to provide additional early warning.

Figure H-2. Zone reconnaissance (technique 1).
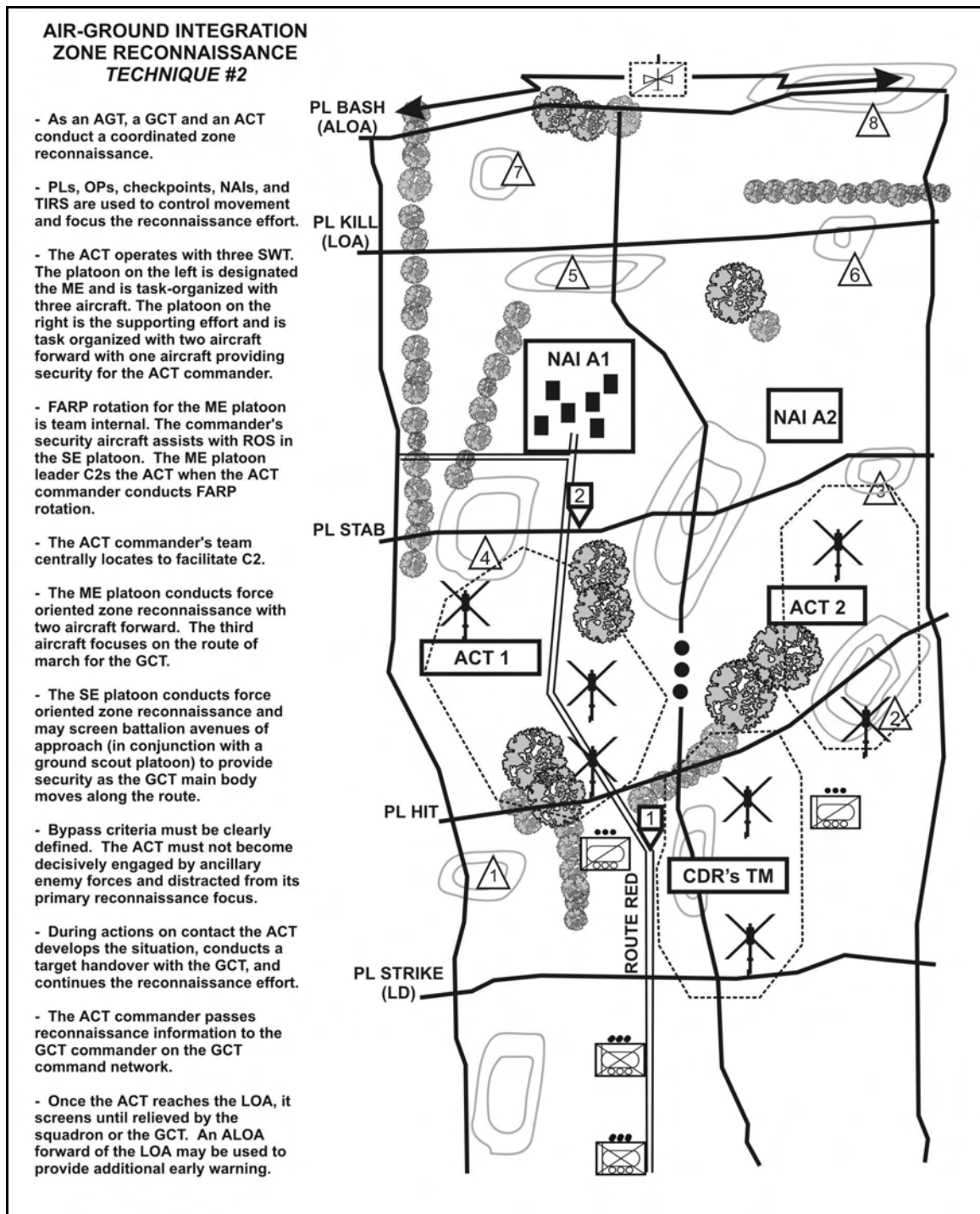
Figure H-3. Zone reconnaissance (technique 2).

(3) *Area Reconnaissance.* An area reconnaissance is conducted to gain information on a specific area that may be critical to combat operations (Figure H-4, page H-10 and Figure H-5, page H-11). Like the zone reconnaissance, the commander may employ air-ground teams to accomplish this task. The commander may assign one specific area to each separate ground and air team or he may assign them an area together. The area

reconnaissance proceeds much faster than the zone reconnaissance since the efforts focus on specific pieces of terrain.

AIR-GROUND INTEGRATION AREA RECONNAISSANCE TECHNIQUE #1

- As an AGT, a GCT and an ACT conduct a coordinated area reconnaissance of OBJ CAT.

- PLs, checkpoints, and screen lines are used to control movement and focus the reconnaissance and security effort.

- The ACT first conducts a hasty route reconnaissance of the GCT's route of march to the objective. The ACT's initial focus is to get the GCT to the objective quickly without losses.

- At PL Hit, ACT 1 bounds forward to conduct a force oriented reconnaissance of the area. Once ACT 1 clears the area, ACT 2 bounds along the flank to establish a screen on the far side of the objective. Based on METT-TC, the screen is placed to provide early warning and reaction time while the GCT executes the area reconnaissance. ACTs report on the ACT command network. The ACT commander cross talks on the GCT command network.

- ACT 3 (ACT CDR's TM) continues to conduct hasty route reconnaissance to facilitate the continued movement of the GCT to objective.

- As the GCT closes on the area reconnaissance objective, ACT 3 assumes overwatch of the objective. ACT 1 starts the FARP rotation or moves to the screen line to assist ACT 2.

- If contact is made on the screen line, ACT 2 reports, maintains contact, and develops the situation. Based on METT-TC, ACT 2 may engage with indirect fires (mortars/artillery), direct fires, or conduct target handover to the GCT or another ACT.

- Upon completion of the area reconnaissance, the AGT departs the area on a different route. The ACT continues to conduct route reconnaissance and screens to protect the GCT during movement.

Figure H-4. Area reconnaissance (technique #1).

AIR-GROUND INTEGRATION AREA RECONNAISSANCE
TECHNIQUE #2

- As an AGT, a GCT and an ACT conduct a coordinated area reconnaissance of OBJ CAT.

- PLs, checkpoints, and screen lines are used to control movement and focus the reconnaissance and security effort.

- The ACT first conducts a hasty route reconnaissance of the GCT's route of march to the objective. The ACT uses a "V" formation, 2 ACTs up, 1 ACT back. The ACT's initial focus is to get the GCT to the objective quickly without losses.

- At PL Hit, ACT 1 and 2 bound forward to conduct a force oriented reconnaissance of the area. After the area is cleared, ACT 1 bounds along the left flank and ACT 2 bounds along the right flank to establish a screen on the far side of the objective. Based on METT-TC, the screen is placed to provide early warning and reaction time while the GCT executes the area reconnaissance. ACTs report on the ACT command network. The ACT commander cross talks on the GCT command network.

- ACT 3 (ACT CDR's TM) continues to conduct hasty route reconnaissance to facilitate the continued movement of the GCT to objective.

- As the GCT closes on the area reconnaissance objective, ACT 3 assumes overwatch of the objective. ACTs 1 and 2 conduct team FARP rotations. ACT 3 conducts team internal FARP rotation.

- If contact is made on the screen line, ACT 1 or ACT 2 reports, maintains contact, and develops the situation. Based on METT-TC, ACT 1 or ACT 2 may engage with indirect fires (mortars/ artillery), direct fires, or conduct target handover to the GCT or another ACT. The out of contact ACT on the screen displaces to maintain contact in-depth.

- Upon completion of the area reconnaissance, the AGT departs the area on a different route. The ACT continues to conduct route reconnaissance and screens to protect the GCT during movement.

PL KILL

OBJ CAT

ACT 1

ACT 2

ACT 3

PL HIT

Figure H-5. Area reconnaissance (technique #2).

b. **Security Operations.** Security operations allow the ground maneuver commander to gain information about the enemy and to provide reaction time, maneuver space, and protection of friendly forces. This allows the ground maneuver commander the ability to preserve valuable combat power to employ to destroy the enemy. Aviation assets support the ground maneuver commander by conducting screen, guard, and cover operations.

(1) *Screen.* During screening operations, the ground maneuver commander may employ aviation assets alone or in conjunction with ground forces to provide early warning, cover any exposed flanks, or fill any gaps between maneuver forces that cannot be secured in force (Figure H-6). Because of the capabilities of aviation assets, especially at night, the ground maneuver commander can judiciously employ them on the battlefield to cover a very large area that cannot be covered on the ground alone. Additionally, aviation assets enable the ground maneuver commander to respond to developing enemy situations in an expeditious manner.

(2) *Guard.* During guard operations, aviation assets must be task organized with ground maneuver assets. Aviation assets support the ground maneuver commander by providing the same capabilities as with screen operations. During guard operations, the ground maneuver commander may utilize aviation assets to conduct reconnaissance, screen an exposed flank during movement, enhance C2, provide direct and indirect fire support, and position CS and CSS assets for future use.

(3) *Cover.* Since a covering force must accomplish the same tasks as a guard force, aviation assets must be task organized with ground maneuver assets to accomplish this task.

AIR-GROUND INTEGRATION
STATIONARY FLANK SCREEN

- An ACT and GCT conduct a coordinated stationary screen of the right flank of the main body.

- The ACT establishes OPs, team boundaries, and other control measures to facilitate C2 and depth to the screen line.

- The ACT operates with 3 ACTs set in OPs to maintain maximum eyes forward and provide security within the team. OPs are not placed linearly along the screen, but placed in-depth to allow contact to be maintained with enemy force and to cover multiple avenues of approach. ACT integrity is maintained to facilitate security and reconnaissance through the depth of the sector.

- The ACT commander operates independent of the ACTs, when possible, positioning himself where he can best C2 the troops, coordinate with the GCT, and pass intelligence to squadron.

- The rear boundary of the ACT is established as a battle handover line to facilitate rapid target handovers to the GCT without losing enemy contact.

- ACTs conduct internal relief on station to maximize reconnaissance forward. FARPs should be positioned as close to the screen as METT-TC allows to minimize FARP turn around times.

- The GCT positions scout sections in-depth to provide redundant coverage in-depth and to facilitate battle handover to the two tank platoons, which are defending BPs.

- The two tank platoons defend BPs to destroy enemy reconnaissance forces that penetrate the ACT and ground scout platoon screens.

- Based on the SCO's engagement and bypass criteria, the ACT should maintain contact with enemy forces and conduct target handovers for destruction by the GCT. This allows the ACT to maintain the screen without being decisively engaged.

BHOL

ACT 1

CDR

ACT 2

ACT 1

Figure H-6. Stationary flank screen.

c. **Available Assets.** Any rotary-wing aircraft can conduct reconnaissance operations since they all greatly increase the range at which enemy movement can be detected. However, the aircraft primarily dedicated to reconnaissance and security operations are AH-64A, AH-64D, and OH-58D (Table H-1).

(1) *AH-64 Apache.* The AH-64A is a twin-engine, tandem-seat, four-bladed attack helicopter with a crew of two rated aviators. The pilot occupies the rear cockpit, and the copilot-gunner occupies the front cockpit. The aircraft has day, night, and limited adverse weather fighting capabilities. The aircraft is equipped with a laser rangefinder/designator (LRF/D). The LRF/D is used to designate for the firing of a Hellfire missile and provides range to target information for the fire control system. (See FM 1-112 for a detailed explanation of the aircraft.)

(2) *AH-64D Longbow Apache.* The AH-64D is a variant of the AH-64A. The AH-64D is designed to provide increased effectiveness over the capabilities of the AH-64A while greatly reducing the AH-64A's limitations. The AH-64D has several key improvements, including fire control radar (FCR), RF Hellfire (fire and forget) missile system, digital communications, and other significant features. The day, night, and limited adverse weather fighting capabilities of the AH-64A are significantly enhanced in the AH-64D.

(3) *OH-58D Kiowa Warrior.* The OH-58D (I) Kiowa Warrior provides the maneuver commander with a versatile platform; it can be armed with various weapons systems and is suitable for employment in numerous types of situations and operations. The aircraft features a stabilized mast-mounted sight (MMS) with a low-light television sensor (TVS), thermal imaging sensor (TIS), and LRF/D. (See FM 1-114 for a detailed explanation of the aircraft.

Aircraft Type *	Hellfire	2.75" (70mm) Rockets	.50 caliber machine gun (rounds)	20mm cannon (rounds)	30mm Chaingun (rounds)
AH-64A/D	16	76			1,200
OH-58D **	4	14	500		
MAX RANGE	8 km	8 km	2 km	2 km	4 km
NOTES: * Numbers in each column indicate the maximum load for each system. The total amount of ordnance carried will vary based on METT-TC and selected weapon configuration. ** One weapon system per side for Hellfire and 2.75-inch rocket.					

Table H-1. Rotary-wing aircraft.

(4) Maximum weapon ranges specified in Table H-1 above are based on "best-case" function of the system. Maximum ranges should not be the only criteria used in the establishment of engagement areas to battle positions, attack by fire, or support by fire positions. Ranges to target engagement distances are affected by the factors of METT-TC, and the single most important factor is weather because of the limiting impact on visibility and thermal sensors. Examples of some normal engagement weapon ranges are listed below:

Hellfire: 1000 to 6000 meters (day)
1000 to 4000 meters (night)
Rocket: 1000 to 6000 meters
30mm: 500 to 3000 meters
.50 cal: 500 to 1500 meters

H-5.   RETROGRADE OPERATIONS
During retrograde operations, aviation assets can assist the ground maneuver commander in movement away from an enemy force or to the rear.

a.   **Delay.** In a delay operation, the ground maneuver commander trades space for time and preserves friendly combat power while inflicting maximum damage on the enemy. Aviation forces can assist the ground maneuver commander by--

- Rapidly concentrating fires to allow disengagement and repositioning.
- Conducting surprise attacks to confuse advancing enemy forces.
- Emplacing Volcano minefields to supplement obstacles or to impede or canalize enemy movements.
- Conducting air assaults to move ground forces between delaying positions.
- Providing a C2 platform.

b.   **Withdrawal.** During a withdrawal, the ground maneuver commander voluntarily disengages the enemy. This withdrawal may be conducted with or without enemy pressure. Aviation forces can assist the ground maneuver commander in a withdrawal by-

- Using cavalry and attack helicopters in an offensive manner to attrit enemy maneuver and fire support units.
- Providing security for withdrawing friendly units.
- Acting as the reserve.
- Conducting CASEVAC operations.
- Emplacing refuel on the move (ROM) sites to refuel vehicles conducting the retirement.
- Providing a C2 platform.

c.   **Retirement.** During retirement operations, a unit that is not in contact with the enemy moves to the rear in an organized manner. Retirement operations are normally conducted during the hours of darkness, which makes aviation's ability to maneuver on the battlefield rapidly to find, fix, and destroy the enemy during the hours of darkness a decisive advantage to the ground maneuver commander. Aviation forces can assist the ground maneuver commander during a retirement by--

- Providing security of routes during the retirement.
- Conducting hasty attacks to destroy enemy elements.
- Emplacing ROM sites to refuel vehicles conducting the retirement.
- Providing a C2 platform.

H-6.   COMMUNICATIONS
Successful employment of aviation assets is possible only if they are able to communicate with the other members of the combined arms team. The primary means of communications with helicopters is FM frequency hop secure. To help reduce the load on the FM radios, all helicopters have UHF and VHF radios. Table H-2, page H-16, shows the number and type of radios in Army rotary-wing aircraft.

AIRCRAFT TYPE	FM	VHF	UHF	HF (ALE)
AH-64A	** 1 (2)	** 1 (0)	1	
AH-64D	2	1	1	*1
CH-47D	*** 0, 1, 2	*** 2, 1, 0	1	*1
OH-58D	2	1	1	
UH-60	2	1	1	*1
NOTES: *CH47D and F, UH60A/L/M, AH64D Lot 7 and above. **Configuration is 2 FM and 0 VHF **OR** 1 FM and 1 VHF. ***Configuration is 2 FM and 0 VHF **OR** 1 FM and 1 VHF **OR** 0 FM and 2 VHF. ALE – automatic link establishment: selects the best frequency based on atmospheric conditions.				

Table H-2. Number and type of radios.

H-7. AIR-GROUND INTEGRATION

Direct fire aviation missions in the close fight differ greatly from engagements in a cross-FLOT operation. In a cross-FLOT operation, attack and cavalry aircraft can benefit from deliberate planning, freely engaging at maximum ranges with minimal concern of fratricide. Engagements in the close fight, on the other hand, often result in engagements within enemy direct fire weapons system ranges that are in close proximity to friendly units. The hasty attack in the close fight typically lacks proper coordination between air and ground elements. The following paragraphs focus on the hasty attack within an air-ground integrated attack. Effective coordination between ground maneuver units and attack aviation maximizes the capabilities of the combined arms team while minimizing the risk of fratricide. To ensure adequate and effective air-ground integration, the following major problem areas should be addressed:

- Ensure aircrews understand the ground tactical plan and the ground maneuver commander's intent.
- Ensure adequate common control measures are used to allow both air and ground units maximum freedom of fire and maneuver.
- Ensure aircrews and ground forces understand the methods of differentiating between enemy and friendly forces on the ground.

H-8. AIR-GROUND COORDINATION PROCEDURES

Effective integration of air and ground assets begins with the supported ground maneuver element. When the aviation brigade or battalion receives a mission to provide assistance to a ground unit engaged in close combat and planning time is minimal, the initial information provided by the unit in contact should be sufficient to get the aviation attack team out of the aviation tactical assembly area to a holding area in order to conduct direct coordination with the engaged maneuver unit. To ensure the air and ground forces exchange essential information, planners use a five-step procedure:

- Maneuver brigade planning requirements.
- Battalion close fight SITREP.
- Attack team check-in.
- Coordination for aviation direct fire.
- Battle damage assessment and reattack.

This paragraph also discusses aviation employment considerations and maneuver brigade liaison officer coordination requirements.

a. **Step 1, Maneuver Planning Requirements.** The SBCT, through its aviation liaison officer, provides the necessary information to meet planning requirements to the aviation brigade headquarters (Figure H-7). The initial planning and information to be passed to the aviation brigade headquarters includes the location of the holding area, air axis, and route or corridor for entry and exit through the SBCT AO. The holding area should be in the sector of the ground maneuver battalion involved in close combat. The holding area may be a concealed position or an aerial holding area that allows for final coordination between the attack team leader and the ground unit leader. It must be located within FM radio range of all units involved. Alternate holding areas, along with ingress and egress routes, must be designated if occupation is expected to last longer than 15 minutes. The ground maneuver battalion also provides the call signs and frequencies or SINCGARS hopsets and COMSEC information regarding the battalion in contact. If the unit is SINCGARS-equipped, the attack team must also have the common "time," which may be taken from GPSs. In addition, the SBCT provides a current situation update for its AO and specifically for the supported battalions in the AO. This update includes a recommended engagement area that will allow for initial planning for battle positions or ABF or SBF positions and possibly prevent unintentional overflight of enemy positions.

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1. Current situation: This should include friendly forces location and situation, enemy situation highlighting known ADA threat in the AO, and tentative engagement area coordinates.

2. SBCT- or battalion-level graphics update: This can be via MCS-P or radio communications. It updates critical items such as LOA, fire control measures, and base maneuver graphics to facilitate better integration into the friendly scheme of maneuver.

3. Fire support coordination information: This includes call signs and frequencies and locations of supporting and organic artillery and organic mortars.

4. Ingress and egress routes into the AO: This includes PPs into sector or zone and air routes to the holding area.

5. Holding area for face-to-face coordination between the attack team and the battalion in contact: A holding area equates to an assault position. It must be out of enemy mortar range, out of range of enemy direct fire systems, and adequate in size to accommodate the number of aircraft assigned the mission.

6. Call signs and frequencies of the battalion in contact down to the company in contact: Air-ground coordination on command frequencies is necessary to provide a current COP for all elements involved.

7. SINCGARS: Synchronize time.

Figure H-7. Minimum aviation brigade planning requirements.

b. **Step 2, SBCT Infantry Battalion Close Fight SITREP.** En route to the holding area, the attack team leader contacts the ground maneuver battalion on its FM command net to receive a close fight SITREP (Figure H-8, page H-18). This SITREP verifies the

location of the holding area and a means to conduct additional coordination. The attack team leader receives an update from the ground maneuver battalion on the enemy and friendly situations. The battalion also verifies frequencies and call signs of the unit in contact. By this time, the ground maneuver battalion has contacted the ground maneuver unit leader in contact to inform him that attack aviation is en route to conduct a hasty attack.

1. Enemy situation: focuses on ADA in the AO, type of enemy vehicles and or equipment position (center mass), and direction of movement; if dispersed, provides front line trace.

2. Friendly situation: provides location of company in contact, mission assigned to it, and method of marking its position.

3. Call sign and frequency verification.

4. Holding area verification: if intended to be used for face-to-face coordination, a sign/countersign must be agreed upon; for example, using a light/heat source to provide a recognizable signature answered either by aircraft IR lights or visible light flashes to signify which aircraft to approach.

Figure H-8. Battalion close fight SITREP.

NOTE: The examples of simulated radio traffic in this appendix are merely examples of what may occur:

EXAMPLE	
Attack Team	**Ground Maneuver Battalion**
"Bulldog 06 this is Blackjack 26, over."	
	"Blackjack 26 this is Bulldog 06, L/C, over."
"Bulldog 06, Blackjack 26 enroute to HA at grid VQ 98454287, request SITREP, over."	
	"Blackjack 26 this is Bulldog 06, enemy situation follows, Hardrock 06 is taking direct fire from a platoon size armor element at grid VQ 96204362, Hardrock 06 elements are established on phase line Nevada center mass VQ 96000050, holding area VQ 94004000 expect radio coordination only, contact Hardrock 06 on FH 478, over."

(1) Upon receiving the required information from the ground maneuver battalion, the attack team leader changes frequency to the ground company's FM command net to conduct final coordination before ingressing on attack routes to BPs or ABF or SBF positions. Coordination begins with the ground maneuver company commander and ends with the leader of the lowest-level unit in contact.

(2) When the attack team leader conducts coordination with <u>any</u> key leader, the ground command net is the most suitable net on which both air and ground elements can conduct the operation. It allows all key leaders on the ground, including the fire support team chief and the attack team leader and his attack crews, to communicate on one common net throughout the operation. Operating on the command net also allows the attack team to request responsive mortar fire for either suppression or immediate suppression of the enemy. The AH-64 Apache is limited to only one FM radio due to aircraft configuration. However, the OH-58D is dual-FM capable, which gives the attack team leader the capability to maintain communications with the ground maneuver company as well as its higher headquarters or a fire support element.

EXAMPLE

Attack Team	**Ground Maneuver Company**
"Hardrock 06 this is Blackjack 26 on FH 478, over."	
	"Blackjack 26 this is Hardrock 06, L/C over."

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c. **Step 3, Attack Team Check-In.** Upon making initial radio contact with the ground maneuver unit in contact, the attack team leader executes a succinct check-in (Figure H-9, page H-20). This check-in includes the attack team's present location, which is normally its ground or aerial holding area; the attack team's composition; its armament load and weapons configuration; total station time; and its night-vision device capability. If not using a ground holding area due to METT-TC considerations, the attack team selects and occupies an aerial holding area within FM communications range until all required coordination is complete. The attack team leader and ground unit's key leaders must consider the effects on friendly forces of the various weapons carried by the attack aircraft prior to target selection and engagement. Weapons systems and munition selection for a given engagement depend on the factors of METT-TC. Point target weapons systems, such as Hellfire, are the preferred systems for armor or hardened targets when engaging targets in the close fight. The gun systems and the 2.75-inch rockets are the preferred systems and munitions for engaging troops in the open, soft targets such as trucks, and trench works. These area fire weapons systems pose a danger to friendly soldiers who may be in the lethality zone of the rounds or rockets. If this danger exists, the leader on the ground must be very precise in describing the target he wants the aircraft to engage.

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1. Aircraft present location.
2. Team composition.
3. Munitions available.
4. Station time.
5. Night-vision device capable and type.
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Figure H-9. Attack team check-in.

EXAMPLE

Attack Team   **Ground Maneuver Company**
"Hardrock 06, Blackjack 26 is
currently holding at grid VQ
98454287, 2 Kiowa Warriors
with 450 rounds of .50 cal, 2
Hellfires each, half hour station
time, all aircraft are NVG and
FLIR capable, over"

                                                   "Blackjack 26, Hardrock 06, stand by, over"

"Blackjack 26, roger"

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d. **Step 4, Coordination for Aviation Direct Fires.** Time is the primary constraining factor for coordinating aviation direct fire in the hasty attack. When possible, coordinate aviation direct fire face-to-face using the aviation direct fire coordination checklist (Figure H-10, page H-22). If time is not available for face-to-face coordination, then use radio-only communications and the request for immediate aviation direct fire (Figure H-11, page H-22). The request for immediate aviation direct fire may also be used when targets of opportunity require engagement through a target handoff between the ground and aviation elements after face-to-face coordination has been conducted. Although face-to-face coordination is preferred, the factors of METT-TC dictate how the commander in contact and the attack team leader conduct coordination. A major benefit of face-to-face coordination is the attack team's ability to talk to the ground commander with a map available and integrate into the ground scheme of maneuver. This also provides an opportunity for the attack team to update its maps with the maneuver battalion's latest graphics.

(1) *Face-to-Face Coordination.* Once they receive the flight check-in, the ground company commander and attack team leader meet at the holding area and use the aviation direct fire coordination checklist to plan their attack (Figure H-10, page H-22).

(a) There are several key elements of coordination to complete at the holding area:

- The target must be identified and its activity explained.
- The friendly forces' positions must be identified on a map with a method of visually marking those positions passed on to the flight.

- If not previously done, the engagement area must be verified or defined.
- After defining the engagement area, the attack team leader must establish BPs and SBF positions.
- The scheme of maneuver for the ground elements must be explained with the commander's intent and description of what is considered the decisive point on the battlefield. With that information, the attack team provides an integrated scheme of maneuver.
- Existing or required fire control measures must be planned for and utilized to minimize the potential for fratricide.
- Key maneuver graphics that are required to support or understand the scheme of maneuver are passed between the ground commander and attack team leader.
- A method of marking targets, such as laser pointers and tracers, must be discussed.

(b) After completing this coordination, forces can execute the synchronized attack plan. Even with carefully thought out plans, however, situations will arise during the attack that will require flexibility and possibly the need to mass effects against targets of opportunity at a new location within the supported unit's sector or zone. Ground and air forces attack these targets of opportunity on a case-by-case basis using the request for immediate aviation direct fire. (See FM 3-04.111.)

(c) Ground and air commanders must consider the time available for this coordination. If they remain in the holding area for greater than 15 minutes, they must accept increased risk of holding area compromise. The factors of METT-TC dictate the extent of preplanning they can accomplish and the length of time they should occupy the holding area.

(2) *Radio-Only Communications Coordination.* When using radio-only communications coordination, leaders use a request for immediate aviation direct fire. (See FM 3-04.111.) As previously discussed, leaders employ immediate aviation direct fire under two different conditions. The first is when they have already conducted face-to-face coordination and targets of opportunity arise. In this case, the ground element uses a request for immediate aviation direct fire for target handoff. The second condition is when time is not available for face-to-face coordination. In this case, the request for immediate aviation direct fire may be used as a stand-alone method of engagement where the call is used for communicating attack requirements from ground to air via radio only.

(a) When employing the request for immediate aviation direct fire under the first condition, it is assumed that air and ground units have exchanged all essential elements from the coordination checklist during face-to-face coordination at the holding area. During the attack, the ground commander calls the attack team leader and requests immediate aviation direct fires for targets of opportunity. In this manner, the forces accomplish target handoff and the attack team leader redistributes fires accordingly.

(b) When employing the request for immediate aviation direct fire under the second condition, the ground commander in contact should brief only essential elements from the aviation direct fire coordination checklist as a SITREP via radio. He transmits this SITREP prior to a request for immediate aviation direct fire. Once he receives the flight check-in, the ground maneuver leader then provides a situation update, METT-TC permitting, containing essential elements from the aviation direct fire coordination

checklist. After sending the SITREP, the ground commander calls the attack aircraft forward from their holding area or aerial holding area using a request for immediate aviation direct fire. Whether the attack team utilizes a holding area or aerial holding area to conduct radio coordination depends on its abilities to maintain FM communication with the ground element in contact. As the attack team maintains position at an aerial holding area or within a holding area, the ground maneuver leader succinctly outlines the concept of his ground tactical plan. He includes updates on enemy composition, disposition, and most recent activities, particularly the location of air defense weapons. He also provides an update on the friendly situation--to include the composition, disposition, and location of his forces and supporting artillery or mortar positions. After providing this information, the ground maneuver leader uses the request for immediate aviation direct fire format for attack and for subsequent re-attacks.

1. *Enemy situation: specific target identification.

2. *Friendly situation: location and method of marking friendly positions.

3. *Ground maneuver mission and scheme of maneuver.

4. Attack aircraft scheme of maneuver.

5. Planned engagement area and BPs or SBF positions.

6. Method of target marking.

7. Fire coordination and fire restrictions.

8. Map graphics update.

* To employ immediate aviation direct fire, the ground commander must brief the essential elements from the coordination checklist (**in bold**) via radio as a SITREP.

Figure H-10. Aviation direct fire coordination checklist.

EXAMPLE

Attack Team   **Ground Maneuver Company**

"Blackjack 26, Hardrock 06, stand by for update, friendly platoon in contact located at VQ 96000050, marked by IR strobes, enemy platoon size armor element is 800 meters due north, there has been sporadic heavy machine gun fire and main tank gun fire into our position, fire appears to be coming from road intersection vic VQ 96204362, negative knowledge on disposition of enemy ADA, I'll be handing you down to Hardrock 16 for the aviation direct fire request, over."

"Hardrock 06, Blackjack 26, good copy, standing by at HA for aviation direct fire request, over."

(c) After receipt of a request for immediate aviation direct fire, the attack team leader informs the ground unit leader of the battle position, support-by-fire position, or the series of positions his team will occupy. These are the positions that provide the best observation and fields of fire into the engagement or target area. The battle position or SBF position is the position from which the attack aircraft will engage the enemy with direct fire. It includes a number of individual aircraft firing positions and may be planned in advance or established as the situation dictates. Its size varies depending on the number of aircraft using the position, the size of the engagement area, and the type of terrain. The battle position or SBF position is normally offset from the flank of the friendly ground position, but close to the position of the requesting unit to facilitate efficient target handoffs. This also ensures that rotor wash, ammunition casing expenditure, and the general signature of the aircraft does not interfere with operations on the ground. The offset position also allows the aircraft to engage the enemy on its flanks rather than its front and lessens the risk of fratricide along the helicopter gun target line.

(d) The attack team leader then provides the ground maneuver unit leader with his concept for the team's attack on the objective. This may be as simple as relaying the attack route or direction from which the aircraft will come, the time required to move forward from their current position, and the location of the BP. Only on completion of coordination with the lowest unit in contact does the flight depart the holding area for the battle position. As the attack team moves out of the holding area, it uses nap of the earth (NOE) flight along attack routes to mask itself from ground enemy observation and enemy direct fire systems. The attack team leader maintains FM communications with the ground unit leader while he maintains internal communications on either his VHF or UHF net.

EXAMPLE

Attack Team	**Ground Maneuver Platoon**
"Hardrock 16, Blackjack elements will attack from the southeast, turn on IR strobes at this time, we will establish a BP to the west of your position 100 meters, over."	
	"Blackjack 26, Hardrock 16, strobes on at this time, over."
"Roger Hardrock, Blackjack has your position, enroute for attack 30 seconds, over."	
	"Hardrock 16, roger."
"Hardrock 16, Blackjack 26, engagement complete, 2 T-80s destroyed, over."	
	"Blackjack 26, Hardrock 16, roger 2 T-80s destroyed, end of mission, out."

NOTE: This scenario was written without friction, as though in perfect conditions. Grid locations may be difficult for the ground maneuver unit to provide, depending on the intensity of the ongoing engagement. Also, actual FM communications between the ground and air may not work this well.

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e. **Step 5, Battle Damage Assessment and Reattack.** After completing the requested aviation direct fire, the attack team leader provides a battle damage assessment to the ground maneuver commander. Based on his intent, the ground maneuver commander determines if a reattack is required to achieve his desired end state. Requests for aviation direct fire may continue until all munitions or fuel is expended. Upon request for a reattack, the attack team leader must consider the effects on duration and strength of coverage he can provide the ground maneuver commander. The attack team may need to devise a rearming and refueling plan, maintaining some of his aircraft on station with the unit in contact while the remainder return to the forward arming and refueling point. Beyond the coordination with the ground maneuver unit in contact, the attack team leader must coordinate this effort with his higher headquarters.

H-9. REVIEW OF MAJOR POINTS
In review, when an attack unit integrates into the ground scheme of maneuver, mission success requires detailed coordination between the attack unit and the ground unit already engaged in close combat.

a. The SBCT provides the aviation brigade or battalion with the information available on locations, routes, and communications before the attack team's departure from its assembly area.

b. The holding area is a concealed position where final coordination is made with the unit in contact before the attack team launches its attack. The aerial holding area is a point in space within the ground battalion's AO which is oriented towards the enemy to allow the attack team to receive requests for aviation direct fire and expedite the attack. The aerial holding area may be an alternate BP located outside the enemy's direct and indirect fire weapons ranges.

c. The attack team coordinates directly with the lowest-level unit in contact. The preferred method of coordination is face-to-face; however, due to time constraints, radio coordination on the ground company FM command net may be the only method allowable.

d. The ground maneuver leaders and attack pilots must understand the ground effects of the attack team's weapons systems.

e. Final coordination with the ground maneuver unit includes agreeing on a method of identifying the friendly and enemy positions.

f. The means of identifying friendly positions should take advantage of the forward looking infrared radar, thermal imaging system, and night-vision goggle (NVG) capabilities of the attack team.

g. The battle position or ABF position should be offset from the ground maneuver unit to maximize the effects of its weapons and to minimize the risk of fratricide. The ground commander should inform DS artillery and organic mortars of these positions in order to de-conflict indirect fires into his sector or zone.

h. After completion of the aviation direct fire, the attack team leader provides a BDA report to the ground maneuver commander.

H-10. EMPLOYMENT CONSIDERATIONS

All aircrew and ground maneuver leaders should understand the strengths and weaknesses of available aviation sensors when employed in conjunction with target-marking equipment. This paragraph addresses several factors operators should consider when marking targets for varied aviation optics. The equipment covered includes target-marking devices, NVGs, FLIR, TIS, TV/electro-optical (EO), electronic beacons, and laser designators.

a. **Target Identification and Friendly Position Marking.** The method of marking friendly positions is a critical piece of planning that must be considered thoroughly regardless of time available to the ground and air commanders. The ability of the aircrews to observe and identify ground signals easily is a critical factor in reducing fratricide and maximizing responsive aerial fires. The signal or combination of signals must be based on items commonly carried by ground maneuver units, must be acquirable by the night-vision or thermal imaging systems on the aircraft, and must be recognizable by the aircrew.

(1) Determine all required identification and marking procedures before starting a mission. Accurate and detailed maps, charts, or imagery facilitates aircrew orientation to the friendly scheme of maneuver. Aircrews must continue to work closely with the ground forces to positively identify friendly positions.

(2) Visual signaling or marking positions helps determine the disposition of friendly forces. Often, the simplest methods are the best. Traditional signaling devices, such as flares, strobes, and signaling mirrors, may be quite effective. Target marking, or orientation on enemy positions, may also be accomplished by signaling. Common techniques include the use of smoke, laser pointers, or tracers. Other devices are available to aid in the recognition of friendly forces and equipment where the fluid tactical situation and intermingling of forces in the close fight may make identification difficult. The use of glint tape, combat identification panels (CIPs), and infrared beacons assists in the clear identification of friendly ground forces, but ground lighting, thermal contrast, and intermediate obstructions influence the effectiveness of these devices.

(3) The proximity of friendly forces to targets requires positive identification and makes marking of friendly units and targets critical. All participants must clearly understand the procedures and be issued the appropriate devices. The fire support assets must also be familiar with the friendly marking system. Aircrews require positive identification of the target and friendly positions prior to firing. The methods to mark and identify targets are limited only by the creativity of the ground forces and aircrews. Commanders should use Table H-3 as a reference but should not limit themselves to only these methods. Methods employed must be adapted to the conditions prevalent at the time. Positive air-to-ground communications are essential to coordinate and authenticate marks.

(4) Time permitting, attack aircraft may input a target grid into the aircraft GPS or inertial navigation system (INS). The target grid can provide fire control cues (range, heading, and time to the target) to aid in quicker target acquisition and help distinguish friendly from enemy. Because aviation direct fire missions may be "danger close" with short firing ranges, tracking time is minimal and therefore so is the time available to optimize the sensor.

METHOD	DAY/NT	ASSETS	FRIENDLY MARKS	TARGET MARKS	REMARKS
SMOKE	D/N	All	Good	Good	Easily identifiable. May compromise friendly position, obscure target, or warn of fire support employment. Placement may be difficult due to structures.
SMOKE (IR)	D/N	All/NVD at night	Good	Good	Easily identifiable. May compromise friendly position, obscure target, or warn of fire support employment. Placement may be difficult due to structures. Night marking is greatly enhanced by the use of IR reflective smoke.
ILLUM GRND BST	D/N	All	N/A	Good	Easily identified, may wash out NVDs.
SIGNAL MIRROR	D	All	Good	N/A	Avoids compromise of friendly location. Dependent on weather and available light and may be lost in reflections from other reflective surfaces (windshields, windows, water, etc.).
SPOT LIGHT	N	All	Good	Marginal	Highly visible to all. Compromises friendly position and warns of fire support employment. Effectiveness depends on degree of urban lighting.
IR SPOT LIGHT	N	All NVD	Good	Marginal	Visible to all with NVGs. Less likely to compromise than overt light. Effectiveness depends on degree of urban lighting.
IR LASER POINTER (below .4 watts)	N	All NVG	Good	Marginal	Effectiveness depends on degree of urban lighting.
IR LASER POINTER (above .4 watts)	N	All NVD	Good	Good	Less affected by ambient light and weather conditions. Highly effective under all but the most highly lit or worst weather conditions. IZLID-2 is the current example.
VISUAL LASER	N	All	Good	Marginal	Highly visible to all. Risk of compromise is high. Effectiveness depends on degree of urban lighting.
LASER DESIG-NATOR	D/N	PGM- or LST-equipped	N/a	Good	Highly effective with PGM. Very restrictive laser acquisition cone and requires line of sight to target. May require pre-coordination of laser codes.
TRACERS	D/N	All	N/a	Marginal	May compromise position. May be difficult to distinguish mark from other gunfire. During daytime use, may be more effective to kick up dust surrounding target.
ELECTRONIC BEACON	D/N	See remarks	Excellent	Good	Ideal friendly marking device for AC-130 and some USAF fixed-wing aircraft (not compatible with Navy or Marine aircraft). Least impeded by urban terrain. Can be used as a TRP for target identification. Coordination with aircrews essential to ensure equipment and training compatibility.
STROBE (OVERT)	N	All	Marginal	N/A	Visible by all. Effectiveness depends on degree of urban lighting.
STROBE (IR)	N	All NVD	Good	N/A	Visible to all NVDs. Effectiveness depends on degree of urban lighting. Coded strobes aid in acquisition.
FLARE (OVERT)	D/N	All	Good	N/A	Visible to all. Easily identified by aircrew.
FLARE (IR)	N	All NVD	Good	N/A	Visible to all NVDs. Easily identified by aircrew.
GLINT/IR PANEL	N	All NVD	Good	N/A	Not readily detectable by enemy. Very effective except in highly lit areas.
COMBAT IDENTIFICA-TION PANEL	D/N	All FLIR	Good	N/A	Provides temperature contrast on vehicles or building. May be obscured by urban terrain.
VS-17 PANEL	D	All	Marginal	N/A	Only visible during daylight. Easily obscured by structures.
CHEMICAL HEAT SOURCES	D/N	All FLIR	Poor	N/A	Easily masked by urban structures and lost in thermal clutter. Difficult to acquire. Can be effective when used to contrast cold background or when aircrew knows general location.
SPINNING CHEM-LIGHT (OVERT)	N	All	Marginal	N/A	Provides unique signature. May be obscured by structures. Provides a distinct signature easily recognized. Effectiveness depends on degree of urban lighting.
SPINNING CHEM-LIGHT (IR)	N	All NVD	Marginal	N/A	Provides unique signature. May be obscured by structures. Effectiveness depends on degree of urban lighting.

Table H-3. Target and friendly marking methods.

b. **Laser Designation.** A major challenge for a gunner is achieving and keeping LOS with a target or friendly position from a moving aircraft. Helicopters may use hover capabilities but only in the most permissive environments. Laser designation requires uninterrupted LOS to identify and engage a target. This may mean the lasing platform, must be very near the target--possibly within enemy direct fire ranges, danger-close distances, or weapon arming distances--to keep the spot on the target until ordnance impact, especially in complex (urban) terrain. Smoke from burning vehicles or other fires may drift across the laser to the target line causing laser dispersion. Most laser designating platforms cannot actually see their laser spot on a target. Lasers are often boresighted to other supporting sensors like FLIR/TIS or TV/EO. If the supporting sensor cannot see a target, the laser cannot effectively mark the target. Further, even though a FLIR/TIS may "see" a target, the laser may not be capable of guiding ordnance against it since smoke, invisible to the FLIR/TIS, may attenuate the laser energy. The most significant contributor to laser attenuation, or nonselective scattering, is water vapor or absolute humidity. The impact of humidity on FLIR/TIS performance is greater than its impact on the laser. In other words, if you can detect the target in clear air, then the laser should provide sufficient laser energy for seeker acquisition. As a rule of thumb, if you detect a target with a visual sensor and consistently determine a range to it with a laser range finder, then you can likely designate it satisfactorily for a laser-guided weapon. For low and medium threats where a great amount of time is available to use the FLIR/TIS to point the laser, the methods are simple. As the threat escalates and the time available for target acquisition shrinks, targeting with the FLIR/TIS becomes more difficult, and the delivery accuracy of the laser munitions may be degraded significantly.

c. **Television/Electro-optical.** TV/EO sensors are subject to many of the same limitations as the naked eye, particularly TVS with no low-light capability. Aircrews may not be successful in acquiring a target and achieving lock-on if smoke, buildings, or other factors repeatedly interrupt line of sight. Low-light or all-light TV/EO sensors may require frequent gain and filter changes to accommodate varying light levels. Normal means of target and friendly identification many prove ineffective. Infrared strobes or even overt strobes normally visible to TV/EO sensors may be lost in the light clutter. Laser pointers will suffer the same type of degradation. TV/EO resolution is typically not sufficient at medium and extended ranges to discriminate between a friendly position or a target and its surrounding features. Ground personnel may need to utilize more aggressive and overt means of identifying their position and that of the target if TV/EO sensors are to be used to identify, track, and engage targets.

H-11. MANEUVER HEADQUARTERS LNO PLANNING REQUIREMENTS

The following list is not all-inclusive but further defines the maneuver headquarters LNO's planning requirements in support of aviation integration in the close fight. Many of these requirements require the assistance of the maneuver battalion staff. Proper planning requires the integration of the aviation brigade headquarters or battalion as early as possible in the MDMP.

a. Coordinate airspace usage and control with the maneuver brigade S3, aviation brigade S3 Air, FSO, and ADA liaison officer.

b. Coordinate for land usage within the supported unit's area of operations for forward assembly areas, holding areas, and forward arming and refueling points.

c. Coordinate for suppression of enemy air defenses.

d. Ensure that the supported commander understands the number of aviation assets available and duration of coverage provided. If required to support the operation, begin coordination to ensure a FARP is available to support the mission.

e. Provide the aviation unit with the most current update on the enemy situation, with additional emphasis on air defense assets.

f. Provide the aviation unit with fire support assets (not just SEAD) available. Provide call signs, frequencies, priorities of targets, and any special instructions.

g. Coordinate air routes into the brigade sector and FLOT-crossing procedures in both directions, if required (passage points, alternate passage points, crossing times, SEAD windows, altitudes, and airspeeds).

h. Ensure that the ground commander is briefed on fighter management considerations.

i. Coordinate for COMSEC, Have Quick sequences (through the ALO) and IFF fills. Ensure that changeover times are the same between supporting and supported units and that both elements understand the communications requirements, capabilities, and limitations of the other.

j. Ensure method of target marking and friendly position marking is passed to aviation brigade.

k. Prepare a mission statement for the attack unit to include the target, target location, and the expected results of the attack (destroy, attrit, disrupt, overmatch, or deny or delay avenue of approach).

l. Designate an axis of advance, separate from the ground maneuver forces' axis, for each attack helicopter unit.

m. Coordinate for establishment and protection of BPs or ABF positions. To take advantage of helicopter mobility, battle positions should be planned for rear and flank shots into engagement areas, if possible. LNOs should not attempt to pick individual firing positions but should use the guidelines in the acronyms BRASSCRAF and NORMA (Appendix A, FM 1-112) to select BPs in conjunction with the aviation brigade or battalion staffs.

n. Coordinate for fire control in engagement areas. Establish target priorities for attack helicopters. Inform the ground commander that by doctrine, the target priorities for any attack helicopter are (in order):

- Immediate threat to self.
- Immediate threat to platoon or company.
- Immediate threat to other friendly forces.
- Pre-established target priorities.

o. Coordinate for joint air attack team operations if CAS will be available.

p. Coordinate laser codes, especially when working with compatible nonaviation laser systems (Copperhead, GLAD, Pave Penny, Maverick, and laser-guided bombs).

H-12. ARMY AVIATION MANEUVER SUPPORT IN URBAN OPERATIONS

Effective combined arms employment in urban areas requires that aviation and ground maneuver forces synchronize their operations by operating from a common perspective. This paragraph highlights some possible procedures that will aid in creating a common air-ground perspective.

a. **General.** Army aviation's primary role during UO is the support of the shaping operations. Aviation operating on the urban periphery effectively enhances isolation, reconnaissance, resupply, troop movement, evacuation, and support by fire for ground forces. Army aviation also enhances the combined arms team's ability to quickly and efficiently transition to new missions. Aviation forces normally avoid operations in urban terrain due to the high risk of being engaged by enemy forces in close proximity. When aviation forces cannot avoid urban areas during UO, special measures and thorough risk analysis must be conducted to minimize the associated dangers. The following missions are commonly performed during UO.

- Assess. Identify the portion(s) of the urban area essential to mission success. Aviation forces provide reconnaissance capability, security to ground forces, movement of troops and supplies, and augmentation of communication and surveillance capabilities

- Shape. Isolate those areas essential to mission success or avoid isolation while in the defense. In the offense, aviation forces attack to isolate the objective, move troops and supplies, enhance C2, conduct reconnaissance, and augment ground forces. In the defense, aviation forces act as a maneuver element to set the conditions for the main battle and prevent isolation.

- Dominate. Precisely mass the effects of combat power to rapidly dominate the area. Army aviation supports the ground maneuver commander's intent and scheme of maneuver by providing maneuver and support assets. Aviation supports the combined arms effort by providing support by fire, movement of troops and supplies, enhanced C2, air assaults, reconnaissance, and continued isolation of the objective.

- Transition. Transition the urban area to the control of another agency and prepare for follow-on operations. Aviation forces conduct combat, combat support, and combat service support missions that facilitate the combined arms transition to follow-on operations.

b. **Command and Control.** Army aviation forces may be employed organic to a division or higher level of command to conduct maneuver or provide support (DS or GS). Aviation forces may also be attached or under operational control of another command. Operational control of attack helicopter units will remain at the level of battalion or higher; however, attack helicopters may conduct direct air-to-ground coordination with companies and platoons during combat operations.

c. **Maneuver Graphic Aids.** One of aviation's greatest strengths--its ability to maneuver three dimensionally--can also be a detriment. The associated challenge is that aircrews have different visual cues and perspectives than do ground forces. Common graphics and sketches can help alleviate these differences. A network route structure of air control points (ACP) and routes (preferably surveyed) may be used to facilitate route planning, navigation, and C2. Sketches help correlate air and ground control measures with predominate urban features. The area sketch offers the ground commander and the aircrew a means of identifying friendly and enemy locations for planning and coordination (Figure H-11). The area sketch is best used for smaller towns and villages but can be applied to a certain engagement area or specific area of operations in a larger city. The area sketch captures the natural terrain features, manmade features, and key terrain in that area and designates a letter or numeral code to each. Buildings are coded

and each corner of the building is coded. This gives the aircrews and accurate way to target specific buildings as requested by the ground unit commander or to identify friendly locations. Inclusion of maneuver graphic, fire support control measures, and airspace control measures (ACMs) allows aircrews and maneuver elements to better visualize the urban portion of theAO. <u>Units must ensure they use the same area sketch for accurate coordination</u>.
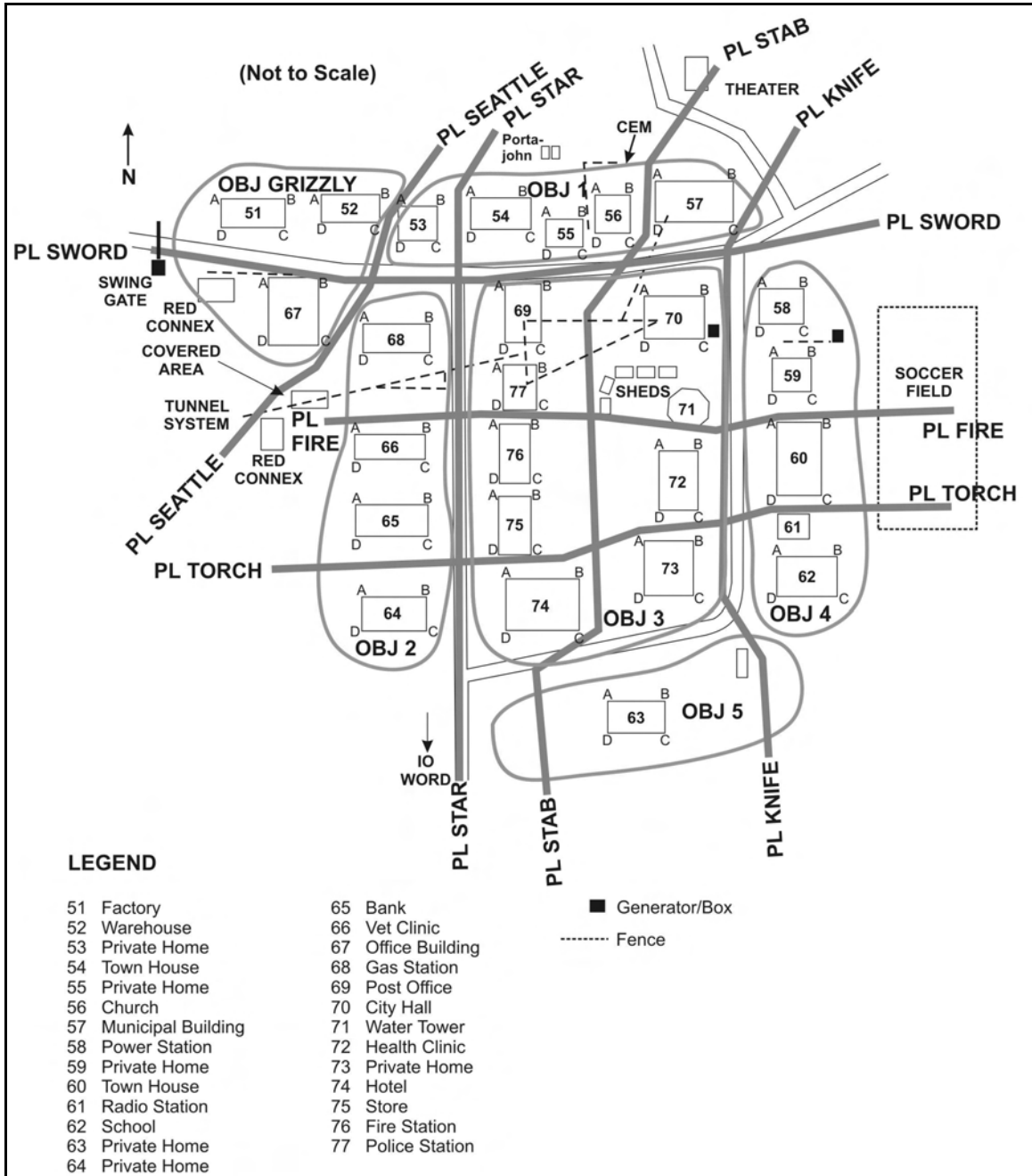
Figure H-11. Area sketch (simplified).

   d. **Identifying Friendly Positions, Marking Locations, and Target Acquisition.**
In the urban environment, friendly, enemy, and noncombatants may operate in close
vicinity. Furthermore, structures and debris can cause problems with identifying precise
locations. Reliable communication is essential to ensure aircrews know the locations of
all participants in UO. To further enhance air-ground coordination, methods must be
established to allow aircrews to visually identify key locations. See Table H-3, page H-
27, for methods of marking.

   (1) ***Targeting Grids and Reference Techniques.*** Ground maneuver elements
generally use a terrain-based reference system during urban operations. Military grid
reference system (MGRS) coordinates have little meaning at street level. Common
control methods include urban grid (Figure H-12), bull's-eye/checkpoint targeting
(Figure H-13), objective area reference grid (Figure H-14), and TRPs (Figure H-15, page
H-34). These techniques are based on the street and structure pattern present, without
regard to the MGRS grid pattern. Aircrews must plan to transition to the system in use by
the ground element upon arrival in the objective area. For example, references to the
objective or target may include local landmarks such as, "The third floor of the Hotel
Caviar, south-east corner." This transition should be facilitated by using a "big to small"
acquisition technique.
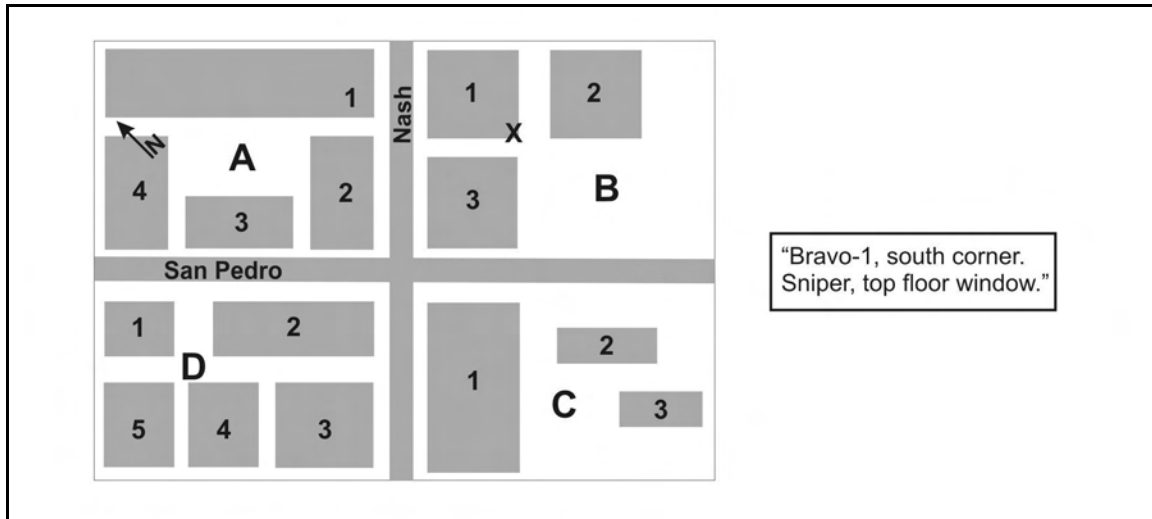
Figure H-12. Urban grid.
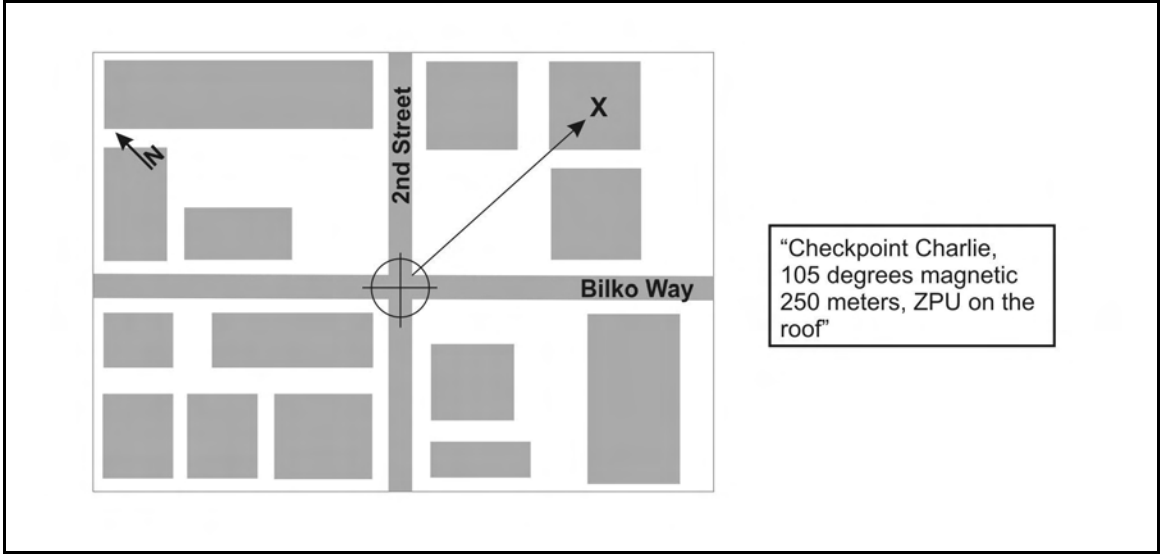
Figure H-13. Bull's-eye/checkpoint targeting.
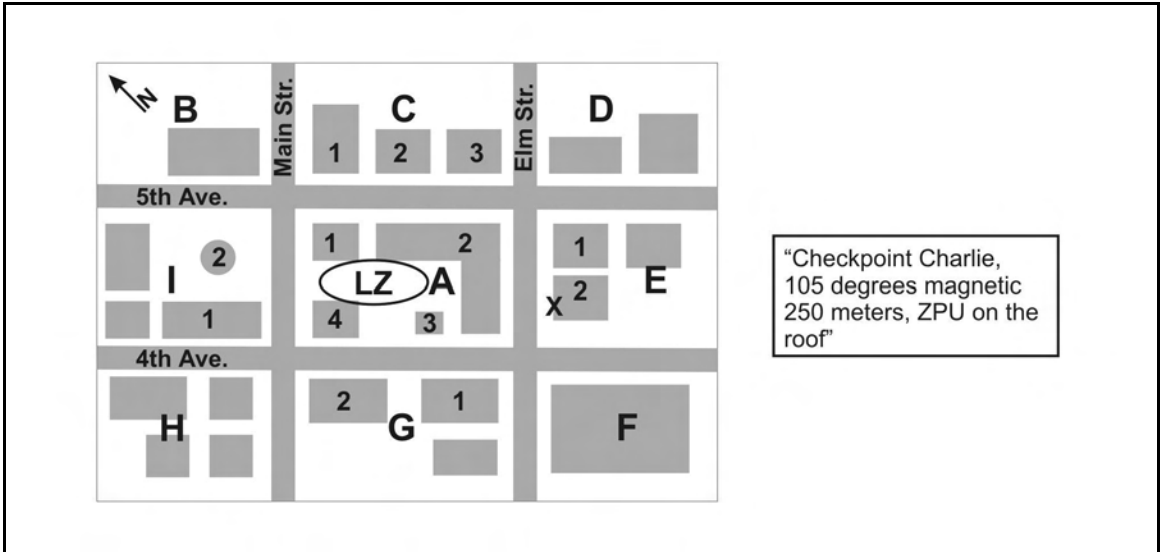
Figure H-14. Objective area reference grid.
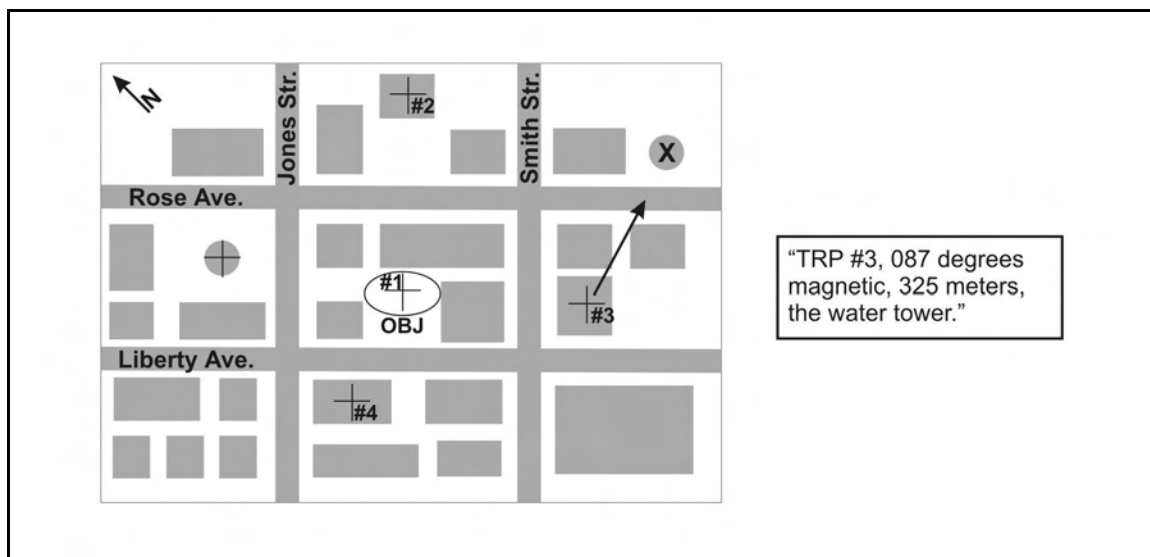
Figure H-15. Target reference points.

(2) **Additional Cues.** Physical terrain features and visual markings provide additional guidance for identification purposes.

(a) *Roof Characteristics.* Flat roofs, pitched roofs, domed roofs, and roofs with towers or air conditioning units on top will aid in visual and thermal acquisition. Additional structural features revealed in imagery will aid in confirmation. This method of terrain association will prove invaluable for visual engagement or reconnaissance since structures are often too close to rely on mere grid coordinates.

(b) *Visual Markings.* The visual signaling or marking of positions allows more ease in determining the location of friendly forces. During building clearing operations, the progress of friendly units (both horizontally and vertically) may be marked with spray paint or bed sheets hung out of windows. The simplest methods are often the best. Traditional signaling devices, such as flares, strobes, and signaling mirrors, may be effective as well. Target marking or an orientation on enemy positions may also be accomplished using signaling procedures. The use of GLINT tape, combat identification (ID) panels, and infrared beacons assists in the ID of friendly ground forces on urban terrain. Standardized usage of ground lighting, thermal contrast, and interposition of structures influence the effectiveness of these devices.

(c) *Shadows.* During both high and low ambient light conditions, expect to see significant urban shadowing from buildings when cultural lights are present. Shadows will hide personnel and or vehicular targets, like the shadows that hide small hills against the background of larger mountains. Shadows will hide non-thermally significant targets, but thermal targets should still be seen. A combination of sensors will need to be used to acquire and identify the target; therefore, a sensor hand-off plan must be thoroughly briefed.

(d) *Global Positioning System.* The use of aircraft with integrated GPS will reduce the amount of time spent finding the target area. If ground forces can provide accurate coordinates, inputting a target grid into the GPS or inertial navigation system will provide fire control cues (range, heading, time) to the target that will aid in quicker target acquisition and help distinguish friendly forces from enemy forces.

e. **Attack Helicopter Engagement.** Attack helicopters will conduct a variety of TTPs to engage targets in the urban area. Techniques range from support by fire/attack by fire at maximum standoff ranges to running/diving fire and close combat attack at minimum engagement ranges. Coordination is imperative to ensure positive ID of the target as well as friendly locations.

(1) Urban terrain introduces a unique challenge to aircrews and ground personnel alike with the notion of the urban canyon. Simply stated, an urban canyon exists when a target or target set is shielded by vertical structures. Unlike most natural terrain, the vertical characteristics of urban terrain can greatly affect delivery options. Urban terrain typically creates corridors of visibility running between structures. Street level targets are only visible along the street axis or from high angles. The interposition of structures around a target interrupts LOS from many directions. The presence of buildings and other structures in urban terrain creates corridors of visibility along streets, rivers, and railways. LOS must be maintained for enough time to acquire the target, achieve a weapons delivery solution, and fly to those parameters. This timeline is reduced during the employment of the AH-64D. A precise navigation system enables the aircraft to slave its sensors and weapons to a stored target, thereby significantly reducing target acquisition times. In some cases, the AH-64D may employ the gun or folding fin aerial rockets (FFARs) in an "indirect" mode and never have to expose the aircraft to the target area. (*Ground forces should make every attempt to pass along accurate 8-digit grid coordinates as the AH-64D can easily and accurately engage targets using this method.*)

(2) Visibility limitations on marking devices in the urban environment are geometric in nature. The use of any pointer or laser requires LOS. In addition, the aircraft must have LOS with the target to see the mark. Urban terrain severely limits LOS opportunities. Due to the close proximity of structures to one another, there may be very narrow fields of view and limited axes of approach. The high number of reflective surfaces in an urban setting presents an additional challenge. Laser energy can be reflected and present multiple false returns. For these reasons, fire support can be expected to be more time consuming and be much more dependent on good communications.

(3) Combinations of marking devices and clear talk-on procedures will be essential to safe and effective fire support. Ground forces should consider using buddy lasing or remote lasing tactics for laser guided munitions when urban effects preclude the attacking aircraft from maintaining LOS with the target until ordnance impact. However, if designating with a ground-based laser along a narrow street bounded by tall buildings, LOS geometry may allow the weapon to receive reflected laser energy. Aircrews must also consider the potential miss distances for "precision" munitions when their guidance source is interrupted or removed.

(4) Armed helicopters can carry a mix of weapons. Commanders must choose the weapons to use on a specific mission based on their effects on the target, employment techniques, and the target's proximity to ground forces. Planners must consider proportionality, collateral damage, and noncombatant casualties. Planners and aircrew must consider the following when choosing weapons:

- Hard, smooth, flat surfaces with 90 degree angles are characteristic of man-made targets. Due to aviation delivery parameters, munitions will normally strike a target at an angle less than 90 degrees. This may reduce the effect of munitions and increase the chance of ricochets. The tendency of rounds to strike glancing blows against hard surfaces means that up to 25 percent of impact-fused rounds may not detonate when fired onto areas of rubble.
- Identification and engagement times are short.
- Depression and elevation limits create dead space. Target engagement from oblique angles, both horizontal and vertical, must be considered.
- Smoke, dust, and shadows mask targets. Additionally, rubble and man-made structures can mask fires. Targets, even those at close range, tend to be indistinct.
- Urban fighting often involves units attacking on converging routes. The risks from friendly fires, ricochets, and fratricide must be considered during the planning of operations.
- The effect of the weapon and the position of friendly and or enemy personnel with relation to structures must be considered. Choose weapons for employment based on their effects against the building material composition rather than against enemy personnel.
- Munitions can produce secondary effects, such as fires.

APPENDIX I

AIR ASSAULT OPERATIONS

When the SBCT infantry battalion executes an air assault operation, mechanized infantry companies form the primary air assault force. Usually, one or two companies form the basic air assault force, but a mechanized pure force may use all three companies. Higher headquarters provides the additional assets required to execute an air assault mission. In most cases, the operation concludes with a linkup operation between infantry and mounted forces.

Section I. AIR ASSAULT OPERATIONS

Situations favoring an air assault operation for the SBCT infantry battalion include those in which the enemy has a vulnerable area suitable for air assault, surprise can be achieved, and enemy air defenses are weak and vulnerable or can be effectively suppressed.

I-1. AIR ASSAULT MISSION ANALYSIS AND CONSIDERATIONS

The SBCT infantry battalion may not be frequently employed in air assault operations, but such operations, conducted on a limited scale, may be the decisive form of combat. Typical air assault operations conducted by the battalion include river-crossing operations, seizure of key terrain, rear area combat operations, and raids. When the SBCT is operating under TACON of a division, corps, or JTF, the controlling headquarters can exploit the mobility and speed of organic or supporting helicopters to--

- Secure a deep objective in the offense.
- Reinforce a threatened sector in the defense.
- Place combat power at a decisive point on the battlefield.

For this reason, the SBCT must be proficient in conducting air assault operations.

   a.   When the battalion is used in the air assault role, the disposition of the unit's vehicles is also a point of consideration. The combat vehicles of the battalion (-) can be--

- Attached for movement to an assaulting ground element (linkup force).
- Left in an assembly area until the assaulting element returns.
- Repositioned to provide supporting fires for adjacent units or the air assaulting force.

   b.   Other considerations include the following:

- Ground mobility is limited once the unit is inserted unless vehicles are provided.
- Communication range is limited to that of portable radios.
- Range of the reconnaissance platoon is limited unless its vehicles are moved into the objective area.
- Antiarmor capability is reduced.
- Combat support and combat service support are austere.

- Air lines of communication must be planned for sustainment.
- Disposition of the 120-mm mortars depends on the ability to displace the tubes and ammunition. The M1100 trailer indigenous to light and special operation forces may meet this requirement.

c. All other mission analysis factors are in FM 90-4 and are not unique to the SBCT infantry battalion.

I-2. AIR ASSAULT BATTALION ORGANIZATION

As with all air assault operations, the battalion is organized to meet METT-TC and operational considerations.

I-3. ACTIONS OF THE BATTALION (-)

The OPORD should reflect detailed planning for actions of the entire force, not only the air assault element but also the battalion (-) or battalion (-) stay behinds. This planning should emphasize command and control relationships, operational restrictions due to limited numbers of dismounted infantry, and linkup procedures. Should the battalion (-) or combat equipment of the battalion be tasked to perform linkup operations with their deployed infantry, operational issues of time, place, method of linkup, and change of command for operation and maneuver control of the combat vehicles must be carefully planned. Battalion (-) combat vehicles can be used for feints and deception operations prior to linkup with their deployed forces.

Section II. PLANNING CONSIDERATIONS

The battalion commander and staff should review the following planning considerations during the military decision-making process leading to an air assault operation.

I-4. INTELLIGENCE

The primary enemy tactics against air assault operations can be broken down into four major areas:
- Air defense fires (including small arms).
- Fixed- and rotary-wing aircraft.
- Electronic warfare.
- Enemy reaction to LZ operations.

The commander and staff must understand the capabilities and limitations of enemy aircraft in the AO and take all measures to minimize the risk of encounter. They must analyze enemy capabilities to interdict friendly LZs with ground forces, artillery, and CAS during the planning phase of the operation.

I-5. MANEUVER

Habitual relationships and the integration of infantry and Army aviation allow infantrymen and supporting fires to strike rapidly over extended distances. To provide surprise and shock effect, the required combat power should be delivered to the objective area as early as possible, consistent with aircraft and pickup zone capabilities. Attack helicopters, if available, are integrated into the tactical plan of the ground force commander. During air assault operations, they additionally support the lift and assault force by direct and indirect fires. Air assault forces operate relatively free of the terrain

influences that restrict surface operations. Air assault forces are best employed to locate and defeat enemy forces and installations or to seize terrain objectives to prevent enemy withdrawal, reinforcement, and supply, and to prevent the shifting and reinforcement of enemy reserves.

I-6.   FIRE SUPPORT

FS planning must provide for suppressive fires along flight routes and in the vicinity of LZs. Priority of fires must be the suppression of enemy air defenses. Displacement of FS assets and resupply depends on helicopters as prime movers unless prime movers are lifted into the area. Suppression of suspected ADA sites along flight routes is vital to the success of an air assault operation. Naval gunfire (NGF) support and USAF CAS may be available to augment available artillery.

I-7.   ENGINEER SUPPORT

Engineers in an air assault operation assist mobility by constructing or expanding helicopter LZs and FARPs and rehabilitating existing forward operational facilities. Engineers assist in breaching obstacles and fight as infantry when required.

I-8.   AIR DEFENSE ARTILLERY

ADA assets provide protection against low-flying aircraft and attack helicopters. Early warning of enemy air is broadcast over the division early warning net. Avengers and Linebackers, if available, are used in support of the maneuver battalions and to protect C2 and static assets.

I-9.   COMBAT SERVICE SUPPORT

Support of organic aviation units is extensive. FARPs are necessary to maintain the fast pace of air assault operations. The battalion's organic assets push supplies, material, fuel, and ammunition forward by helicopter to support the air assault operation.

I-10.   COMMAND AND CONTROL

The key to successful air assault operations lies in precise, centralized planning and aggressive, decentralized execution. The availability of aviation assets is normally the major factor in determining task organization. Task organization must be determined and announced early in the planning process. Units must maintain tactical integrity throughout an air assault operation. Squads are normally loaded intact on the same helicopter to ensure unit integrity upon landing.

Section III. AIR ASSAULT PLANNING STAGES

The successful execution of an air assault depends on a careful mission analysis by the commander and staff and a detailed, precise reverse planning sequence. The five basic plans that constitute an air assault operation are the ground tactical plan, the landing plan, the air movement plan, the loading plan, and the staging plan (Figure I-1, page I-4). In operations involving units with organic combat vehicles, the ground tactical plan must also include a linkup plan. Air assaults are planned in reverse order, beginning with the ground tactical plan and working backwards to the staging plan.
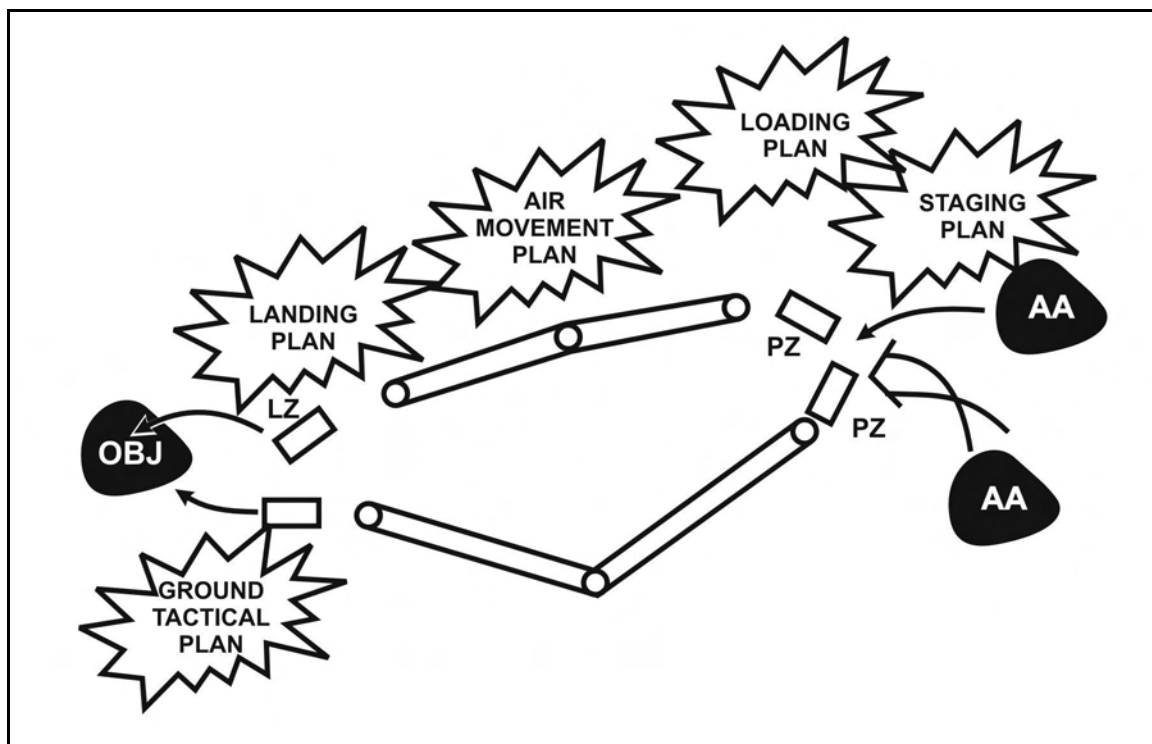
Figure I-1. Air assault planning process.

I-11. AIR ASSAULT BATTALION TASK FORCE KEY PERSONNEL
The battalion staff is responsible for planning the air assault operation and the accompanying battalion(-) operations, developing the air assault in conjunction with the assault helicopter unit, synchronizing all elements of the combined arms team, and allocating the necessary resources to the air assault force to ensure successful execution of the operation.

a. **Air Assault Task Force Commander (AATFC).** The AATFC is normally the battalion commander. He has overall responsibility for the air assault task force's (AATF's) planning and execution. The SBCT commander may decide to assume this role.

b. **Air Mission Commander (AMC).** The supporting helicopter unit provides an AMC. For air assaults conducted by an aviation company from the general support aviation battalion, the battalion commander may designate a company commander or platoon leader to be the AMC.

c. **Aviation Liaison Officer.** The supporting aviation unit should provide an aviation liaison officer to the AATF. He should be considered a special staff officer. His role is to advise the AATFC on all matters relating to Army aviation and to jointly develop, along with the AATF staff, the detailed plans necessary to support the air assault operation. During the execution phase, he should be available to assist the AATFC or S3 in coordinating the employment of aviation assets.

I-12.   AIR ASSAULT ROLES

Utility helicopters and cargo helicopters are the primary aircraft used in air assault operations.

a.   **Utility Helicopters.** The primary mission of the utility helicopter in the air assault is to move troops. With the seats installed, the allowable cargo load (ACL) for the UH-60 is 11 combat-loaded soldiers. If the seats are removed, the ACL increases (the ACL then depends on the type of equipment being carried by the troops). For planning purposes, a UH-60 is capable of transporting approximately 16 combat-loaded troops.

b.   **Cargo Helicopters.** The CH-47D helicopter provides the AATFC with the capability of moving troops and equipment in support of the air assault. In a troop-carrying mode, the CH-47D can transport up to 31 combat-loaded troops.

I-13.   GROUND TACTICAL PLAN

The foundation of a successful air assault is the ground tactical plan. All other air assault planning stages are based on the ground tactical plan, which specifies actions in the objective area that will lead to accomplishment of the mission. The ground tactical plan addresses the following areas:

- Missions of all battalion elements and methods for employment.
- Zones of attack, sectors, or areas of operations with graphic control measures.
- Task organization to include command relationships.
- Location and size of reserves.
- Fire support to include graphic control measures.
- Combat service support.

NOTE: The AATF staff prepares this plan with input from all battalion elements and in sufficient detail to facilitate understanding by subordinate commanders. It is imperative that all aircrews know this ground tactical plan and the ground commander's intent.

a.   **Commander's Intent.** The AATFC must articulate his intent for the air assault early in the planning process. Air assault planning often begins after the AATFC issues his intent even though the ground tactical plan may not be complete. The commander's intent for the air assault allows air assault planners to understand the method and end state and to begin to piece together the subsequent plans. The commander's intent for the air assault includes things such as whether the assault force will land on the objective or land near it and maneuver to it. The commander's intent for the air assault may include surprise as a critical element, which leads to the development of fire support and SEAD plans.

b.   **Organization for Combat.** The mission, enemy situation, terrain, maneuver forces, and fire support assets all help air assault planners determine the battalion organization for combat. Planners emphasize--

- Maximizing combat power in the assault to heighten surprise and shock effect. This is especially important if the air assault force plans to land on or near the objective.
- Ensuring the battalion inserts enough force to accomplish initial objectives quickly. The air assault force must be massed in the LZ and build up

significant combat power early to prevent being defeated by repositioning mobile enemy forces.

- Ensuring the air assault force has sufficient assets to sustain it until linkup.

c. **Scheme of Maneuver.** The AATFC develops a scheme of maneuver to accomplish his mission and seize assigned objectives. Scheme of maneuver development by the battalion headquarters allows subsequent planning phases of the air assault to be accomplished and must be done prior to development of the air assault. Development of the battalion ground tactical plan need not be complete to begin air assault mission planning. As a minimum, the AATFC must provide the ground scheme of maneuver for air assault planning to begin. Battalion planners should not wait for the completed assault force OPORD to begin planning. The battalion staff and aviation units can begin air assault planning as soon as the assault force commander approves the general scheme of maneuver.

d. **Fire Support.** The amount of artillery available to support the air assault and the locations of supporting artillery units are critical factors in determining the ground tactical plan.

e. **Attack Helicopters in Support of the Ground Tactical Plan.** During the ground fight, attack helicopters may assist the assault force commander by providing reconnaissance in the vicinity of the LZs, destroying repositioning forces, destroying counterattacking forces, and calling for and adjusting fire on targets of opportunity. A shift in C2 from the AMC to the assault force commander is critical and must be planned and rehearsed in detail. During an air assault with multiple lifts, the attack helicopters support the air assault and ground fight. (Some elements provide reconnaissance and security for the air assault; other elements screen for the assault force.) Synchronization of the attack assets must be precise and detailed to eliminate confusion and to avoid disrupting the air assault flow.

I-14. LANDING PLAN

The scheme of maneuver and ground tactical plan directly affect the selection of LZs, the landing formation, and the amount of combat power air assaulted into the LZ. The landing plan must be planned in conjunction with the development of the ground tactical plan and must support the assault force commander's intent and scheme of maneuver. The landing plan outlines the distribution, timing, and sequencing of aircraft into the LZ.

a. **LZ Selection.** In coordination with the AMC and LNO, the AATFC selects primary and alternate LZs. The number of selected LZs is based on the ground scheme of maneuver and LZ availability. The aviation planners advise the AATFC on LZ suitability. The considerations for selecting suitable landing zones are--

(1) *Location.* The LZ must be in an area supporting the ground tactical plan of the AATFC. It may be located on the objective, close by, or at a distance.

(2) *Capacity.* The selected LZ must be big enough to support the number of aircraft the AATFC requires on air assault lifts.

(3) *Enemy Disposition and Capabilities.* The AMC must consider enemy air defense locations and weapons ranges and the ability of the enemy to reposition ground forces to react to the air assault.

(4) *Unit Tactical Integrity.* Squads land in the LZ intact, and platoons land in the same serial. This ensures fighting unit integrity during the air assault.

(5) *Supporting Fires.* LZs selected must be in range of supporting fires (artillery, CAS, and naval gunfire).

(6) *Obstacles.* LZ selection includes existing obstacles on the LZ as well as plans for reinforcing them. LZs should be selected beyond enemy obstacles.

(7) *Identification from the Air.* The LZ should be identifiable from the air, if possible.

b. **Air Cavalry and Attack Helicopters in Support of the Landing Plan.** During execution of the landing plan, the air cavalry and attack helicopters can provide overwatch of the LZs, conduct a reconnaissance of the egress flight routes, call for fire (if designated to do so), and set up a screen for supporting the assault force commander during the ground tactical plan. The AMC must ensure that the missions of the attack and cavalry aircraft are synchronized with the assault helicopters.

I-15. AIR MOVEMENT PLAN

The air movement plan is based on the ground tactical and landing plans. It specifies the schedule and provides instructions for the movement of troops, equipment, and supplies from the PZ to the LZ. It provides coordinating instructions regarding air routes, ACPs, aircraft speeds, altitudes, formations, and fire support. The AATFC develops the air movement plan in conjunction with the AMC and flight lead. The air movement plan results in the production of the air movement table.

a. Selection of flight routes is always based on the factors of METT-TC. The battalion staff and the AMC consider the location of friendly troops, enemy disposition, air defense systems, terrain, and the locations of the PZ and LZ to select the best flight route. Selected flight routes should always be laid over the enemy situational template produced by the S2 to ensure that the flight route selected avoids known or suspected enemy positions.

b. The battalion staff and the AMC select primary and alternate flight routes. Alternate flight routes provide the assault force a preplanned, precoordinated method of moving from the PZ to LZ if the primary route becomes compromised.

c. Flight routes that pass through adjacent unit sectors must be coordinated and approved by the adjacent unit to avoid potential fratricide.

d. When selecting flight routes, the AMC and battalion staff must consider--
- Airspace management.
- Support of the landing plan.
- Enemy capabilities.
- Fire support.
- Flight route distance.

e. Air cavalry and attack helicopters can be used in support of the air movement plan. During the air movement phase, the air assault security forces provide reconnaissance and security for the assault helicopters.

I-16. LOADING PLAN

The AATFC bases the loading plan on the air movement and ground tactical plans. The loading plan ensures troops, equipment, and supplies are loaded on the correct aircraft. It establishes the priority of loads, the bump plan, and the cross loading of equipment and personnel. Detailed load planning ensures the battalion arrives at the LZ configured to

support the ground tactical plan. A bump plan that ensures essential troops and equipment are loaded ahead of less critical loads in case aircraft are lost during the air assault. Planning for the loading plan must include the organization and operation of the PZ, the loading of aircraft, and the bump plan.

a. **Pickup Zone Selection.** The first step in the loading plan is selection of suitable primary and alternate PZs. Selection of PZs is based on--

- METT-TC.
- Commander's intent.
- Location of assault forces in relation to PZs.
- Size and capabilities of available PZs.
- Number of PZs.
- Proximity to troops.
- Accessibility.
- Vulnerability to attack.
- Surface conditions.

b. **Pickup Zone Control.** Once the AATFC selects the PZ, the PZ control officer (PZCO) organizes, controls, and coordinates PZ operation.

c. **Aviation Involvement.** The assault helicopter unit must ensure aviation expertise is present on the PZ.

d. **Pickup Zone Communications.** Communications must use the most secure means available. PZ operations may be conducted under radio listening silence to avoid electronic detection. This requires detailed planning. If under radio listening silence, it is imperative that aircrews remain on schedule to allow the PZCO to keep a smooth flow of troops from the PZ. PZ communications are accomplished on the established FM PZ control net, with transmissions kept to a minimum.

e. **Pickup Zone Marking.** The PZCO directs the marking of the PZ so the PZ is identifiable from the air. Far and near recognition signals are needed, especially at night, to allow pilots to orient on the PZ quickly. Touchdown points must be clearly marked. The PZCO must ensure no other lighting is on the PZ.

f. **Disposition of Loads on the Pickup Zone.** Personnel and equipment must be positioned on the PZ to conform with the landing formation. Flight crews must understand the loading plan on the PZ and be prepared to accept troops and equipment immediately upon landing. PZ sketches depicting locations of loads in the PZ assist flight crews in loading troops and equipment quickly once the aircraft arrive in the PZ. Flight crews should be provided a PZ diagram.

g. **Air Cavalry and Attack Helicopters in Support of the Loading Plan.** During the loading phase, the attack and cavalry helicopters assist by providing overwatch of the PZs and conducting a route reconnaissance of the air assault flight routes.

I-17. STAGING PLAN

The staging plan is based on the loading plan and prescribes the proper order for movement of personnel and aircraft to the PZ. Loads must be ready before the aircraft arrive at the PZ. During mission planning, the PZCO determines the time required to set up the PZ and selects times the PZ will be established (based upon the air assault H-hour).

a. **Mission Planning.** Mission planning includes coordination between the battalion and the AMC, development of the aviation OPORD, issuance of the OPORD, and rehearsals.

b. **Routes to the Pickup Zone.** The AMC must select flight routes to the PZ that allow the aircraft to arrive at the PZ on time and in the proper landing direction and configuration to accept loads.

APPENDIX J

OPERATIONS IN NUCLEAR, BIOLOGICAL, AND CHEMICAL CONDITIONS

*The purpose of using chemical and biological weapons varies when employed based on former **Soviet** doctrine or when employed by emerging nations and terrorist groups. Chemical weapons would be used early in an operation or from its onset to hinder an enemy's momentum; disrupt its command, control, and communications; produce casualties; destroy or disable equipment; and disrupt operations. Biological weapons will target rear area objectives such as food supplies, water sources, troop concentrations, convoys, and urban and rural population centers, rather than frontline forces. Chemical and biological agents may be employed separately or together and may supplement conventional weapons.*

The possibility of the use of chemical, biological, and or radiological dispersal weapons by terrorist groups should not be overlooked. Planning must routinely address the use of each of these as well as protective measures against enemy NBC weapons. Terrorist groups, possessing an adequate amount of chemical and or biological agents, may use them in either an operational or tactical situation. Terrorists will use persistent chemical agents to restrict air base and port operations and use non-persistent chemical agents on bypassed troops, strongpoints, and flanks.

Section I. NBC BATTLEFIELD

The integration of NBC weapons and contamination caused by industrial incidents into tactical operations is described as the NBC-contaminated battlefield.

J-1. COMMAND

The battalion commander prepares his units and personnel to operate in an NBC environment. To do this, he ensures the battalion takes the proper protective measures including--

- NBC vulnerability analysis.
- Dispersion and use of terrain as shielding.
- Continuous NBC monitoring with detection equipment.
- Assumption of the appropriate MOPP level.

J-2. STAFF

For NBC operations, the battalion chemical officer provides technical advice to the battalion commander and the remainder of the battalion staff. The NBC staff officer--

- Templates strikes and develops predictions on the effects of enemy NBC weapons on battalion operations in conjunction with the S2.
- Disseminates information received via the NBC warning and reporting system (NBCWRS).
- Recommends reconnaissance, monitoring, and surveying requirements.

- Recommends MOPP and operational exposure guidance (OEG) based on the S2's threat analysis and higher headquarters guidance.
- Maintains records of unit contamination to include radiological dose records.
- Conducts vulnerability analysis of unit positions.
- Plans battalion decontamination operations in conjunction with the S3.
- Coordinates for nonorganic NBC assets (decontamination, smoke, and reconnaissance) support.
- Acts as the liaison between attached chemical units and the S3.

J-3.   CHARACTERISTICS OF CHEMICAL AGENTS

Chemical agents cause casualties, degrade performance, slow maneuver, restrict terrain, and disrupt operations (Table J-1). They can cover large areas and may be delivered as liquid, vapor, or aerosol and disseminated by artillery, mortars, rockets, missiles, aircraft spray, bombs, land mines, and covert means.

AGENT	Nerve	Blister	Blood	Choking
PROTECTION	Mask and BDO	Mask and BDO	Mask	Mask
DETECTION	M8A1, M256A1, CAM, M8 and M9 paper	M256A1, CAM, M8 and M9 paper	M256A1	Odor (freshly mowed hay)
SYMPTOMS	Difficult breathing, drooling, nausea, vomiting, convulsions, and blurred vision	Burning eyes, stinging skin, irritated nose	Convulsions and coma	Coughing, nausea, choking, headache, and tight chest
EFFECTS	Incapacitates	Blisters skin, damages respiratory tract	Incapacitates	Floods and damages lungs
FIRST AID	Mark 1 NAAK	As for 2d and 3d degree burns	None	Keep warm and avoid movement
DECON	M291 and flush eyes with water	M291 and flush eyes with water	None	None

Table J-1. Characteristics of chemical agents.

J-4.   CHARACTERISTICS OF BIOLOGICAL AGENTS

a. **Toxins.** Toxins are poisonous substances produced from living organisms. They--
- Can be synthesized (artificially produced).
- Mirror the symptoms of nerve agents.
- Present 8-12 hours of tactical concern (destroyed by sunlight).
- Can be fast acting (neurotoxins) or slower acting (cytotoxins).

b. **Pathogens.** Pathogens are infectious agents that cause disease in man and animals, such as bacteria, viruses, and rickettsiae. Characteristics of pathogens include--
- Delayed reaction (incubation 1-21 days).
- Multiply and overcome natural defenses.
- Vectors (disease-infected insects) circumvent protective clothing and prolong hazards.

c. **Protection from Biological Agents.** Steps that can be taken to protect against biological agents include the following:

- Maintain up-to-date immunizations.
- Practuce good hygiene.
- Maintain area sanitation.
- Maintain physical conditioning.
- Ensure water purification.

J-5.   NUCLEAR WEAPONS EFFECTS

Nuclear weapons are much more destructive than conventional weapons. Blast, nuclear and thermal radiation, and electromagnetic pulse are of primary concern.

a. **Blast.** High-pressure shock wave crushes structures and causes missiling damage.

b. **Thermal Radiation.** Intense heat and extremely bright light cause burns, temporary blindness, and dazzle.

c. **Nuclear Radiation.** Energy released from a nuclear detonation produces fallout in the form of initial and residual radiation, both of which cause casualties.

d. **Electromagnetic Pulse.** Surge of electrical power occurs within seconds of a nuclear detonation and damages electrical components in equipment (radios, radar, computers, and vehicles) and weapon systems (TOW, Javelin, and Dragon).

e. **Protection from Nuclear Attack.** Cover and shielding offer the best protection from the immediate effects of a nuclear attack. This includes cover in fighting positions (18 inches overhead cover), culverts, and ditches. Soldiers should cover exposed skin and stay down until the blast wave passes and debris stops falling. Immediately after a nuclear attack, begin continuous radiation monitoring.

f.   **Monitoring.** FM 3-3 describes monitoring techniques, correlation factor data, and recording forms. Monitoring may be periodic or continuous.

(1) *Periodic.* Units conduct periodic monitoring during nuclear warfare. All units routinely (at least once an hour) monitor a designated point in their respective areas. The NBC defense annex of the unit SOP gives detailed guidance on monitoring procedures.

(2) *Continuous.* All units initiate continuous monitoring when they receive a fallout warning, when a unit is on an administrative or tactical move, when a nuclear burst occurs, when radiation levels above one centigray (cGy) per hour are detected by periodic monitoring, and on order of the commander. Continuous monitoring stops on instructions from the commander or higher headquarters or when the dose rate falls below one cGy per hour (except for units on the move).

g. **Operational Exposure Guidance.** Operations in a nuclear environment are complicated by the necessity to control exposure of personnel to nuclear radiation. An OEG 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.

Section II. TENETS OF NBC DEFENSE

Protect the force by adhering to three tenets of NBC defense: contamination avoidance, protection, and decontamination.

J-6.   CONTAMINATION AVOIDANCE

Avoiding NBC attacks and hazards is the key to NBC defense. Avoidance allows commanders to shield soldiers and units, thus shaping the battlefield.

    a. **Active and Passive Measures.** Contamination avoidance involves both active and passive measures. Passive measures include training, camouflage, concealment, hardening positions, and dispersion. Active measures include detection, reconnaissance, alarms and signals, warning and reporting, marking, and contamination control.

    b. **NBC Reconnaissance.** NBC reconnaissance is the detection, identification, reporting, and marking of NBC hazards. NBC reconnaissance consists of search, survey, surveillance, and sampling operations. Due to limited availability of the M93 FOX reconnaissance vehicle, consider alternate means of conducting NBC reconnaissance (such as reconnaissance elements, engineers, and maneuver units). As a minimum, consider the following actions when planning and preparing for NBC reconnaissance:

- Use the IPB process to orient on NBC enemy NAIs.
- Pre-position reconnaissance assets to support requirements.
- Establish command and support relationships.
- Assess the time and distance factors for the conduct of NBC reconnaissance.
- Report all information rapidly and accurately.
- Plan for resupply activities to sustain NBC reconnaissance operations.
- Determine possible locations for post-mission decontamination.
- Plan for fire support requirements.
- Plan fratricide prevention measures.
- Establish MEDEVAC procedures.
- Identify NBCWRS procedures and frequencies.

J-7.   NBC PROTECTION

NBC protection is an integral part of operations. Techniques that work for avoidance also work for protection (shielding soldiers and units and shaping the battlefield). Other forms of protection involve sealing or hardening positions, protecting soldiers, assuming appropriate MOPP levels (Table J-2), reacting to attack, and using collective protection. Individual protective items include the protective mask, battledress overgarments (BDOs), overboots, and gloves. The corps- or higher-level commander establishes the minimum level of protection. Subordinate units may increase this level as necessary but may not decrease it. BDOs may be worn for 30 days in an uncontaminated environment or for 24 hours once contaminated.

MOPP Levels

Level / Equip	MOPP Ready	MOPP 0	MOPP 1	MOPP 2	MOPP 3	MOPP 4	Mask Only
Mask	Carried	Carried	Carried	Carried	Worn	Worn	Worn***
BDO	Ready*	Avail **	Worn	Worn	Worn	Worn	
Overboots	Ready*	Avail **	Avail **	Worn	Worn	Worn	
Gloves	Ready*	Avail **	Avail **	Avail **	Avail **	Worn	
Helmet Cover	Ready*	Avail **	Avail **	Worn	Worn	Worn	

* Items avail to soldier within 2 hours w/replacement avail within 6 hours
** Items must be positioned within arm's reach of the soldier
*** Never "mask only" if nerve or blister agent is used in AO

Table J-2. MOPP levels.

J-8. DECONTAMINATION

Use of NBC weapons creates unique residual hazards that may require decontamination. In addition to the deliberate use of these weapons, collateral damage, natural disasters, and industrial emitters may require decontamination. 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, thus allowing commanders to sustain combat operations. Use the four principles of decontamination when planning decontamination operations:

- Decontaminate as soon as possible.
- Decontaminate only what is necessary.
- Decontaminate as far forward as possible (METT-TC dependent).
- Decontaminate by priority.

a. The three levels of decontamination are immediate, operational, and thorough.

(1) ***Immediate Decontamination.*** Immediate decontamination requires minimal planning and is a basic soldier survival skill. Personal wipedown removes contamination from individual equipment using the M291. Operator spraydown uses the on-board decontamination apparatus with DS2 to decontaminate surfaces that an operator must touch or contact to operate the equipment.

(2) ***Operational Decontamination.*** Operational decontamination involves MOPP gear exchange and vehicle spraydown. MOPP gear exchange is most effective when performed within the first six hours of being contaminated; it must be completed within twenty-four hours of being contaminated. Vehicle washdown removes gross contamination and limits the spread of contamination.

(3) ***Thorough Decontamination.*** Thorough decontamination involves detailed troop decontamination (DTD) and detailed equipment decontamination (DED). Thorough decontamination is normally conducted (required after six hours in a contaminated area without any decontamination performed) as part of reconstitution or during breaks in combat operations. Support from a chemical decontamination platoon is required.

b. Decontamination planning considerations include the following:

- Plan decontamination sites throughout the width and depth of the sector.
- Tie decontamination sites to the scheme of maneuver and templated NBC strikes.
- Apply the principles of decontamination.

- Plan for contaminated routes.
- Plan logistics and resupply of MOPP, mask parts, water, and decontamination supplies.
- Consider medical concerns, including treatment and evacuation of contaminated casualties.
- Plan for site security.

APPENDIX K
MEDIA CONSIDERATIONS

In today's environment, there are few military operations in which the media are not present with the capability of immediately transmitting what can be seen and heard. The images and words they project are powerful and can affect national policy. In our form of government, the media have the right to cover operations, and the public has a right to know what the media have to say. Many in the media lack a full understanding of the military, but they are the key conduits of information about the Army to the public. There are many good things about the Army that are unknown to the public. Commanders and public affairs personnel have a responsibility to tell the Army story. Freedom of the press does not negate the requirement for operations security and the accomplishment of the military mission. This appendix addresses how to deal appropriately with the media.

K-1. OBJECTIVE
The objective of the SBCT infantry battalion commander in dealing with the media is to ensure that battalion operations are presented to the American public and audiences around the world in the proper context. Commanders can best achieve this goal by educating soldiers and subordinate leaders about the positive aspects of a well-informed public.

K-2. MEDIA REALITIES
In the modern era, it is impossible to keep large-scale military movements quiet. The media will speculate on destinations of these moves and the likely missions, and such speculation can affect OPSEC. News coverage for deployments will be immediate and worldwide, and the messages put out by television and the print press can change policy. The Army cannot and should not control media messages or stories. The media will go everywhere they can to uncover unique angles and stories. They will mistrust or discount official statements or accounts. They will resist management and escort and will instead try to gather their information firsthand. However, most members of the media have not served in the military and do not understand military nuances.

K-3. MEDIA OBJECTIVES AND INTERESTS
The media will want access to soldiers and units, but they will grudgingly accept media pools. They will seek fresh stories every day and will expect daily authoritative briefings from operators and leaders. The press also wants the soldiers' perspective and will try to accompany soldiers on missions. The media are particularly interested in excessive civilian casualties, fratricide, and the plight of noncombatants. They will want to discuss the rules of engagement and issues related to them. Also of media interest will be any military-civilian disagreements or conflicts, such as looting, murder, rape, or mistreatment of prisoners. Civilian opinions blaming US forces for lack of food, fuel, water, or medical care are sure to reach the press. Looming large on the press list will be any US casualty figures, both actual and projected.

K-4. MEDIA CAPABILITIES

With available technology, the media have the capability to collect and transmit images and sounds worldwide from any location. They have the ability to cover events quickly and to influence the public either positively or negatively. With interest high in worldwide deployments, the media can send large numbers of reporters to cover operations in great detail.

K-5. COMMAND CONSIDERATIONS

Commanders must anticipate, prepare, and respond within 24 hours to breaking events. Otherwise, it will be difficult or impossible to explain or counter what has already appeared on the television or in print. When the released report is inaccurate, the commander should aggressively counter the false report with timely and accurate information backed up by subject matter experts. It is also important to coordinate statements among agencies. Bad news does not get better with age and ignoring the media will not make them go away. If the commander refuses to talk to the media, he will only guarantee the military's perspective will not be seen or heard. The commander must balance his time with the news media to avoid being overexposed or ignored.

K-6. MEDIA GUIDELINES

The following are general guidelines for dealing with the media. These guidelines must be tempered with the public's right to know and the requirements of OPSEC.

a. **Security Considerations.** It is important that all soldiers understand what is classified and not discuss it with the press. Soldiers should also understand that they are not required to talk to the media if it is against their wishes. Precautions should be taken to protect classified information from the news media. If someone accidentally reveals classified information, the reporter should be informed and asked not to use it and explain why. All such incidents must be reported to the SBCT. All soldiers represent the military; they should not guess or speculate on things they do not know. Anything said could be in the hands of the enemy in minutes. Grumbling or thoughtless complaining could provide the enemy with propaganda to use against the military. The media must be prevented from televising nearby recognizable landmarks, sensitive equipment, or operational or classified information contained in the CP. The reasons for interfering with the telecast should be explained to the press.

b. **Media Controls.** Media in the AO should be checked to ensure that they are credentialed, and a military escort should escort them at all times for their safety. An interview should not be scheduled when it could interfere with the mission. Even when preventing the disclosure of classified information, media material or equipment should not be confiscated.

c. **Things Not To Be Discussed.** Neither the commander nor any member of his command should discuss political or foreign policy matters. These are outside the direct purview of the military and would be purely speculative. No soldier should discuss matters about which he does not have direct knowledge. Operational capabilities should not be discussed with the press, including exact numbers or troop strengths, numbers or types of casualties, types of weapons systems, and future plans.

K-7. INTERVIEW GUIDELINES

The SBCT infantry battalion commander or a senior member of the staff may be required to grant an interview. This should be considered an opportunity to ensure that the needs of the media are met by providing accurate, timely, and useful information.

a. **Maintain a Professional Attitude.** Remain in control even when the media seem aggressive or ask silly questions. Be polite but firm. Be brief and concise; use simple language. Do not use jargon or acronyms; the public does not know what they mean. Tell the Army story.

b. **Make a Good Impression.** Relax and be yourself. Ignore the cameras and talk directly to the reporter. Remove your sunglasses so the audience can see your eyes. Use appropriate posture and gestures.

c. **Think First.** Stop and think before answering; questions need not be answered instantly. Answer only one question at a time. Do not allow yourself to be badgered or harassed. Do not get angry. Correct answers are more important than deadlines.

d. **Know the Question.** If you do not understand the question, ask the reporter to rephrase it. Know the question you are answering. Do not answer "what if" questions or render opinions. Reporters often ask the same question in different ways--stay consistent.

e. **Everything Counts.** Everything is <u>ON THE RECORD</u>. You may be friendly, but this is business--stick to business. The interviewer chooses the questions--you choose the answers.

f. **Questions Will Not Be There.** Videotape and print media will not include the question, just your answer. Your answer should stand alone. If the interviewer uses a catch phrase, such as "assassination squad," do <u>not</u> use the word or phrase in your answer. Example: "What are you doing about the assassination squads?" *Bad Answer:* "The assassination squads are being investigated." *Better Answer:* "We are committed to investigating this matter and will take the necessary and appropriate action."

g. **Speak About What You Know.** If you do not know the answer, simply say, "I don't know." That answer rarely appears in print. Avoid speculation or answering a question more appropriate for the Secretary of Defense. Talk about your area of expertise.

h. **Tell the Truth.** Tell the truth even if it hurts. Do not try to cover embarrassing events with a security classification. Never lie to the media.

K-8. TRAINING FOR MEDIA AWARENESS

Units should train for media awareness in two parts, first in a classroom, then in the field.

a. **Classroom Phase.** OPSEC should be covered thoroughly. Many of the things outlined in this appendix should be discussed with soldiers and leaders. If a media card is available in the command, it should be explained in detail. Soldiers should be instructed in how to give an interview and their right to refuse to do so. Leaders should understand their responsibility to convey the Army's story truthfully so that the general public will understand it.

b. **Field Phase.** Soldiers should be given an opportunity to participate in an interview using soldiers who role-play as reporters. If possible, the role-playing soldiers should be qualified in public affairs training. This training should be included in regular field training exercises. If a video camera is used during the interview, the tape can be

replayed during an AAR. Due to the possible far reaching effects of interviews, this training should receive considerable command emphasis.

K-9. MEDIA CARDS

If higher headquarters has not developed a media card, the battalion commander should ask the PAO to develop one. If he or she does not or cannot, the commander should consider doing so for the battalion. Items to include in a media card are--

- Whom to contact and how to contact him or her if a reporter arrives in the unit's area.
- Responsibilities of a media escort.
- What information can or cannot be discussed.
- When to allow a media interview.
- How to treat reporters.
- How to conduct an interview.
- The best techniques to use in telling the Army's story.

APPENDIX L
CONTINUOUS OPERATIONS

The SBCT infantry battalion often operates for extended periods of time in continuous operations. Continuous operations are combat operations that continue at the same high intensity level for extended periods. During continuous operations leaders and soldiers must think faster, make decisions more rapidly, and act more quickly than the enemy. Leaders must know the commander's intent. They must be able to act spontaneously and synchronously, even though the situation has changed and communications are disrupted. This continuous cycle of day and night operations and the associated stress of combat cause degradation in performance over time. Reducing this impact on performance is a significant challenge for the C2 system.

L-1.   EFFECTS OF CONTINUOUS OPERATIONS

Continuous operations force leaders and soldiers to perform under adverse conditions that cause degradation in performance and may lead to combat stress. Table L-1, page L-2, depicts combat stress behaviors.

COMBAT STRESS BEHAVIORS		
ADAPTIVE	**DYSFUNCTIONAL COMBAT STRESS BEHAVIORS**	
POSITIVE COMBAT STRESS BEHAVIORS	**MISCONDUCT STRESS BEHAVIORS AND CRIMINAL ACTS**	**BATTLE FATIGUE**

Unit cohesion
  Loyalty to buddies
  Loyalty to leaders
  Identification with unit
    tradition
Sense of eliteness
Sense of mission
Alertness, vigilence
Exceptional strength and
  endurance
Increased tolerance to
  hardship, discomfort,
    and injury
Sense of purpose
Increased faith
Heroic acts
  Courage
  Self-sacrifice
	Mutilating enemy dead
	Not taking prisoners
	Killing enemy prisoners
	Killing noncombatants
	Torture, brutality
	Killing animals
	Fighting with allies
	Alcohol and drug abuse
	Recklessness, indiscipline
	Looting, pillage, rape
	Fraternization
	Excessively on sick call
	Negligent disease, injury
	Shirking, malingering
	Combat refusal
	Self-inflicted wounds
	Threatening/killing own
	  leaders ("fragging")
	Going absent without
	  leave, desertion
		Hyperalertness
		Fear, anxiety
		Irritability, anger, rage
		Grief, self-doubt, guilt
		Physical stress complaints
		Inattention, carelessness
		Loss of confidence
		Loss of hope and faith
		Depression, insomnia
		Impaired duty performance
		Erratic actions, outbursts
		Freezing, immobility
		Terror, panic running
		Total exhaustion, apathy
		Loss of skills and memories
		Impaired vision, touch,
		  impaired hearing
		Weakness and paralysis
		Hallucinations, delusions

Table L-1. Combat stress behaviors.

L-2. COMBAT STRESS CONTROL

a. Controlling combat stress is often the deciding factor--the difference between victory and defeat--in all forms of human conflict. Stressors are a fact of combat and soldiers must face them. It is controlled combat stress (when properly focused by training, unit cohesion, and leadership) that gives soldiers the necessary alertness, strength, and endurance to accomplish their mission. Controlled combat stress can call forth stress reactions of loyalty, selflessness, and heroism. Conversely, uncontrolled combat stress causes erratic or harmful behavior that disrupts or interferes with accomplishment of the unit mission. Uncontrolled combat stress could impair mission performance and may bring disgrace, disaster, and defeat.

b. The art of war aims to impose so much stress on the enemy soldiers that they lose their will to fight. Both sides try to do this and at times accept severe stress themselves in order to inflict greater stress on the enemy. To win, combat stress must be controlled.

L-3. RESPONSIBILITIES FOR CONTROLLING COMBAT STRESS

Responsibility for combat stress control requires a continuous interaction that begins with every soldier and his buddies. Combat stress control also includes unit combat lifesavers and medics. The interaction continues through the small unit leaders and extends up through the organizational leaders, both officers and NCOs, at all echelons.

　　a.　**Unit Cohesiveness Development.** Rigorous, realistic training for war must go on continuously to assure unit readiness. Emphasis must be placed on establishing and maintaining cohesive units. Unit training and activities must emphasize development of soldier skills. This development should focus on building trust and establishing effective communication throughout the unit.

　　b.　**Senior (Organizational) Leaders' Responsibilities.** The chain of command must ensure that the standards for military leadership are met. Senior leaders must provide the necessary information and resources to the junior leaders to control combat stress and to make stress work for the US Army and against the enemy. The following are some suggestions for senior leadership considerations for combat stress control.

- Be competent, committed, courageous, candid, and caring.
- Plan to accomplish the mission with as few losses as possible.
- Set the policy and command climate for stress control, especially to build teams with high cohesion.
- Serve as an ethical role model.
- Make "The Bureaucracy" work for the soldiers.
- Assure resources to "take care of the soldiers."
- Plan for and conduct tough, realistic training to include live fire.
- Provide as much information as possible to the soldiers.
- Assure that medical and mental health/combat stress control personnel are assigned and trained with their supported units.
- Plan for combat stress control in all operations.
- Provide junior leaders/NCOs with necessary guidance.
- Ensure risk assessments are conducted prior to all training and combat operations.
- Supervise the junior leaders/NCOs and reward their success.
- Be visible.
- Lead all stress control by good example.
- Maintain (through positive leadership and, when necessary, with disciplinary action) the high standards of the international law of land warfare.

　　c.　**Junior (Direct) Leaders' Responsibilities.** Junior leaders, and especially the NCOs, have the crucial task of applying the principles of stress control day-by-day, hour-by-hour, minute-by-minute. These responsibilities overlap with senior leaders' responsibilities but include parts that are fundamentally "sergeants' business," supported by the officers. The following are junior leadership considerations for combat stress control.

- Be competent, committed, courageous, candid, and caring.
- Build cohesive teams; integrate new personnel quickly.
- Cross-train soldiers wherever and whenever possible.
- Plan and conduct tough realistic training that replicates combat conditions.
- Take care of soldiers (including leaders).

- Assure physical fitness, nutrition, hydration, adequate clothing and shelter, and preventive medicine measures.
- Make and enforce sleep plans.
- Keep accurate information flow down to the lowest level and back up again: dispel rumors.
- Encourage sharing of resources and feelings.
- Conduct after-action debriefings routinely.
- Maintain (through positive leadership and, when necessary, with disciplinary action) the high standards of the international law of land warfare.
- Recommend exemplary soldiers for awards and decorations.
- Recognize excess stress early and give immediate support.
- Keep those stressed soldiers who can still perform their duties in the unit and provide extra support and encourage them back to full effectiveness.
- Send those stressed soldiers who cannot get needed rest in their small unit back to a supporting element for brief sleep, food, hygiene, and limited duty, to return in 1 to 2 days.
- Refer temporarily unmanageable stress cases through channels for medical evacuation and treatment.
- Welcome recovered battle fatigue casualties back and give them meaningful work and responsibilities.

L-4.   LOSS OF SLEEP DEGRADATION

One of the most significant factors leading to soldier degradation is the loss of sleep. Table L-2 shows the effects of sleep loss. Other contributing factors include low light levels, limited visibility, disrupted sleep routines, physical fatigue, and stress.

AFTER 24 HOURS	A deterioration in performance of tasks that are inadequately or newly learned, that are monotonous, or that require vigilance.
AFTER 36 HOURS	A marked deterioration in ability to register and understand information.
AFTER 72 HOURS	Performance on most tasks will be about 50 percent of normal.
3 TO 4 DAYS	Is the limit for intensive work including mental and physical elements. Visual illusions are likely at this stage, or earlier, especially in NBC.
BETWEEN 0300 & 0600 HOURS	Performance is at its lowest ebb.

Table L- 2. Effects of sleep loss.

L-5. INDICATORS OF SLEEP DEPRIVATION AND FATIGUE

To minimize the effects of sleep loss, all commanders must be able to recognize the signs of sleep loss and fatigue. Table L-3 shows the indicators of sleep deprivation and fatigue.

PHYSICAL CHANGES	Body swaying when standing.
	Vacant stares.
	Pale skin.
	Slurred speech.
	Bloodshot eyes.
MOOD CHANGES	Less energetic, alert, and cheerful.
	Loss of interest in surroundings.
	Possible depressed mood or apathetic and more irritable.
EARLY MORNING DOLDRUMS	Requires more effort to do a task in the morning than in the afternoon, especially between 0300 and 0600.
COMMUNICATION PROBLEMS	Unable to carry on a conversation.
	Forgetfulness.
	Difficulty in speaking clearly.
DIFFICULTY IN PROCESSING INFORMATION	Slow comprehension and perception.
	Difficulty in accessing simple situations.
	Requiring longer to understand information.
IMPAIRED ATTENTION SPAN	Decreased vigilance.
	Failure to complete routines.
	Reduced attention span.
	Short-term memory loss.
	Inability to concentrate.

Table L-3. Indicators of sleep deprivation and fatigue.

L-6.   REDUCING THE IMPACT OF CONTINUOUS OPERATIONS

Table L-4 shows the measures that may reduce the negative impacts of continuous operations.

SLEEP SCHEDULING		COUNTERMEASURES
ADEQUATE	4 hours of continuous sleep in every 24 hours (likely to maintain adequate performance over several weeks).	Give simple, precise orders. Increase use of written orders. Crosscheck. Plan more time for completion of all tasks. Enforce adequate food and water intake. Develop and enforce sleep plans. Good physical fitness slows the effects of sleep loss and fatigue. Increase use of confirmation briefs.
SLEEP WAKEFULNESS	A small amount of sleep relative to that lost is beneficial.	
RECOVERY	10 hours uninterrupted sleep required for full recovery after 48-72 hours without sleep.	
CATNAPS (10 TO 30 MINUTES)	Catnaps are beneficial, but the only truly effective remedy is sleep.	
TIMING	Consistent timing of sleep and wakeup times will contribute to successful adjustment to an arduous regimen.	
NOTE: After 48-72 hours without sleep, soldiers become militarily ineffective. After 5 to 7 days of partial sleep deprivation, alertness and performance decline to the same low level as seen following 2 to 3 days without sleep.		

Table L-4. Reducing the impact of continuous operations.

L-7.   SLEEP DENIAL

Commanders and leaders often regard themselves as being the least vulnerable to fatigue and the effects of sleep loss. Tasks requiring quick reaction, complex reasoning, and detailed planning, however, make leaders the most vulnerable to the effects of sleep deprivation. Leaders must sleep. The display of sleep denial as an example of self-control by leaders is extremely counterproductive.

GLOSSARY

1SG	first sergeant
A2C2	Army airspace command and control
AA	assembly area; avenue of approach
AAR	after-action review
AATF	air assault task force
AATFC	air assault task force commander
ABCS	Army Battle Command System
ABF	attack by fire
ABMOC	air battle management operations center
ACA	airspace coordination area
ACL	allowable cargo load
ACM	airspace control measure
ACP	air control point
ACT	air combat team (graphics only)
ACUS	Army common user system
AD	air defense
ADA	air defense artillery
ADAM	area denial artillery munition
ADC	area damage control
ADDS	Army data distribution system
ADO	air defense officer
ADW	air defense warning
A/EGM	attack/effects guidance matrix
AFATDS	advanced field artillery tactical data system
AGCCS	Army global command and control system
AGT	air ground team (graphics only)
AHD	antihandling device
AI	area of interest
A/L	administrative/logistical
ALE	automatic link establishment
ALO	air liaison officer
AMC	air mission commander
AMD	air and missile defense
AMDWS	air and missile defense workstation
AMPS	aviation mission planning system
AO	area of operations
AOR	area of responsibility
AP	antipersonnel
APC	armored personnel carrier
APOD	air port of debarkation
ARFOR	Army forces
ARSOF	Army special operations force
ASAS	all-source analysis system

ASAS-RWS	all-source analysis system-remote workstation
ASOC	air support operations center
AT	antitank
ATGM	antitank guided missile
ATM	advanced trauma management
ATO	air tasking order
ATP	ammunition transfer point
ATS	air traffic services
AVIM	aviation intermediate maintenance
AWACS	airborne warning and control system
AXP	ambulance exchange point
BAS	battalion aid station
BCT	brigade combat team (graphics)
BDA	battle damage assessment
BDAR	battle damage assessment and repair
BDE	brigade (graphics)
BDO	battledress overgarment
BFV	Bradley fighting vehicle
BHL	battle handover line
BN	battalion (graphics)
BOLT	brigade operational law team
BOS	battlefield operating systems
BP	battle position
BRASSCRAF	background, range to target, altitude, sun, shadows, cover and concealment, rotor wash, adequate maneuver area, fields of fire
BRIL	baseline resource items list
BSA	brigade support area
BSB	brigade support battalion
BSFV	Bradley Stinger fighting vehicle
BSMC	brigade support medical company
BSN	brigade subscriber node
BUA	built-up area
C2	command and control
C2OTM	command and control on the move
C2W	command and control warfare
C3I	command, control, computers, and intelligence
C4	command, control, communications, and computers
CA	civil affairs
CAAT	civil affairs assessment team
CAS	close air support
CASEVAC	casualty evacuation
CAT	civil affairs team
CATK	counterattack

CBRNE-CM	chemical, biological, radiological, nuclear, and high-yield explosive consequence management
CBU	cluster bomb unit
CCIR	commander's critical information requirements
CCO	contingency contracting officer
CCP	casualty collection point
CD	counterdrug
CDR	commander (graphics)
CFF	call for fire (graphics)
CFFZ	call for fire zone
CFL	coordinated fire line
CFS	call for support
CFZ	critical friendly zone
CGS	common ground station
cGy	centigray
CI	counterintelligence
CID	criminal investigation division
CIP	combat identification panel
CLS	combat lifesaver
CLU	command launch unit
CNRI	combat net radio interface
CO	company (graphics)
COA	course of action
COLT	combat observation lazing team
COMSEC	communications security
CONUS	continental United States
COP	common operational picture
CP	command post
CPOG	chemical protective overgarment
CRP	communications relay package
CRT	combat repair team
CS	combat support
CSC	combat stress control
CSM	command sergeant major
CSR	controlled supply rate
CSS	combat service support
CSSC	combat service support company
CSSCS	combat service support control system
CTCP	combat trains command post
CTIL	commander's tracked item list
CV	command vehicle
DA	Department of the Army
DAMA	demand-assigned multiple access
DED	detailed equipment decontamination
DEUCE	deployable engineer universal combat earthmover

DLIC	detachment left in contact
DMS	defense message system
DNBI	disease and nonbattle injury
DOD	Department of Defense
DP	decision point
DPICM	dual-purpose improved conventional munitions
DS	direct support
DSO	domestic support operation
DSSU	dismounted soldier system unit
DST	decision support template
DSVT	digital secure voice telephone
DTD	detailed troop decontamination
DTG	date-time-group (graphics)
DTO	data terminal operator
DTSS	digital terrain support system
DVNT	digital voice nonsecure telephone
DZ	drop zone
E3	electronmagnetic environmental effects
EA	engagement area
EBA	engineer battlefield assessment
EBC	embedded battle command
ECB	echelons corps and below
ECC	effects coordination cell
ECOORD	effects coordinator
EEFI	essential elements of friendly information
EFET	essential fires and effects task
EFP	explosive-formed penetration
EFST	essential fire support task
EGRU	EPLRS grid reference unit
EMST	essential mobility/survivability task
EMT	emergency medical treatment
EO	electro-optical
EOD	explosive ordnance disposal
EPB	electronic preparation of the battlefield
EPLRS	enhanced position location reporting system
EPW	enemy prisoner of war
ESV	engineer squad vehicle
ETAC	enlisted tactical air controller
EW	electronic warfare
FA	field artillery
FAADC3I	forward area air defense command, control, computers, and intelligence
FAC	forward air controller
FARP	forward arming and refueling point

FASCAM	family of scatterable mines
FBCB2	Force XXI battle command brigade and below
FCR	fire control radar
FD	firing device
FDC	fire direction center
FEBA	forward edge of the battle area
FECC	fires and effects coordination center
FFAR	folding fin aerial rocket
FFIR	friendly forces information requirements
FHA	foreign humanitarian assistance
FID	foreign internal defense
FIST	fire support team
FLIR	forward-looking infrared
FLO	fighter liaison officer
FLOT	forward line of own troops
FM	field manual; frequency modulated
FMC	forward maintenance company
FO	forward observer
FPF	final protective fires
FRAGO	fragmentary order
FS	fire support
FSB	forward support battalion
FSCM	fire support coordination measure
FSCOORD	fire support coordinator
FSE	fire support element
FSMC	forward support medical company
FSMT	forward support medical team
FSNCO	fire support noncommissioned officer
FSO	fire support officer
FST	forward surgical team
FSV	fire support vehicle
FTCP	field trains command post
FU	firing unit
G2	assistant chief of staff (intelligence)
G3	assistant chief of staff (operations and plans)
GBS	ground-based sensor
GPC	government purchase card
GPS	global positioning system
GS	general support
GSR	ground surveillance radar
GCT	ground combat team (graphics)
G/VLLD	ground/vehicle laser locator designator
HCA	humanitarian and civil assistance
HCP	health and comfort pack

HDC	headquarters and distribution company
HE	high-explosive
HEMTT	heavy expanded mobility tactical truck
HEMTT-LHS	heavy expanded mobility tactical truck load handling system
HET	heavy equipment transport
HF	high frequency
HHC	headquarters and headquarters company
HIMAD	high- to medium-altitude air defense
HMEE	high-mobility engineer excavator
HMMWV	high-mobility, multi-purpose, wheeled vehicle
HPT	high-payoff target
HPTL	high-payoff target list (graphics)
HQ	headquarters
HSS	health service support
HUMINT	human intelligence
HVA	high-value asset
HVT	high-value target
IAW	in accordance with
ICM	improved conventional munitions
ICV	infantry carrier vehicle
ICW	in coordination with
ID	identification
IDAD	internal defense and development
IEW	intelligence and electronic warfare
IFF	identification, friend or foe
IHFR	improved high frequency radio
IHMEE	improved high-mobility engineer excavator
IM	information management
IMETS	integrated meteorological system
IMINT	imagery intelligence
INC	internet network controller
INFOSYS	information systems
INS	inertial navigation system
IO	information operations
IP	initial point
IPB	intelligence preparation of the battlefield
IR	information requirements; infrared (graphics only)
IREMBASS	improved remotely monitored battlefield sensor system
ISB	intermediate staging base
ISMS	improved SIGINT manpack system
ISR	intelligence, surveillance, and reconnaissance
J2	joint staff (intelligence)
JAAT	joint air attack team
JAG	judge advocate general

JCS	Joint Chiefs of Staff
JSOA	joint special operations area
JSOF	joint special operations forces
JSOFT	joint special operations task force
JTIDS	joint tactical information distribution system
J-SEAD	joint suppression of enemy air defense
JSTARS	joint surveillance target attack radar system
JTF	joint task force
JTRS	joint tactical radio system
KIA	killed in action
km	killometer
LADW	local air defense warning
LAN	local area network
LC	line of contact
LD	line of departure
LLDR	lightweight laser designator/range finder
LMTV	light medium tactical vehicle
LNO	liaison officer
LOA	limit of advance
LOC	line of communication
LOGCAP	logistics civil augmentation program
LOGPAC	logistics package
LOGSITREP	logistics situation report
LOR	limits of reconnaissance
LOS	line of sight
LRF	laser range finder
LRF/D	laser range finder/designator
LRP	logistics release point
LRS	long-range surveillance
LRU	line replacement unit
LSDIS	light and special divisions interim sensor
LTIOV	last time information is of value
LTO	logistics task order
LW	Land Warrior
LZ	landing zone
MC4	medical communication for combat casualty care
MANPAD	man-portable air defense
MANPADS	man-portable air defense system
MANSPT	maneuver support
MASINT	measurement and signature intelligence
MBA	main battle area
MC	mortar carrier
MCL	mission-configured load

MCOO	modified combined obstacle overlay
MCS	maneuver control system
MCS-P	maneuver control system, Phoenix
MDA	medical digital assistant
MDMP	military decision-making process
ME	main effort (graphics)
MEC	medium engineer company
MEDEVAC	medical evacuation
MET	meteorological
METL	mission-essential task list
METSAT	meteorological satellite
METT-TC	mission, enemy, terrain, troops and support available, time available, and civil considerations
MEV	medical evacuation vehicle
MFCS	mortar fire control system
MGB	medium-girder bridge
MGRS	military grid reference system
MGS	mobile gun system
MI	military intelligence
MICLIC	mine clearing line charge
MICO	military intelligence company
MLRS	multiple launched rocket system
mm	millimeter
MMS	mast-mounted sight
MOGAS	motor gasoline
MOPMS	modular pack mine system
MOPP	mission-oriented protective posture
MOS	military occupational specialty
MP	military police
MPI	military police investigation
MRE	meal, ready to eat
M/S	mobility/survivability
MSE	mobile subscriber equipment
MSR	main supply route
MSRT	mobile subscriber radio telephone
MTA	message transfer agent
MTC	movement to contact
MTF	medical treatment facility
MTV	medium tactical vehicle
MTW	major theater war
MWR	morale, welfare, and recreation
NAI	named area of interest
NBC	nuclear, biological, chemical
NBCRV	nuclear, biological, chemical reconnaissance vehicle
NBCWRS	nuclear, biological, chemical warning and reporting system

NC	node center
NCO	noncommissioned officer
NCOIC	noncommissioned officer in charge
NCS	net control station
NCS-E	net control station, electronic
NEO	noncombatant evacuation operation
NFA	no-fire area
NGF	naval gunfire
NGO	nongovernmental organization
NIMA	National Imagery Mapping Agency
NLT	no later than
NOE	nap-of-the-earth
NORMA	nature of the target, obstacle clearance, range to target, multiple firing positions, adequate area for proper dispersion between aircraft
NSFS	naval surface fire support
NTDR	near-term digital radio
NVG	night-vision goggles
OAKOC	observation and fields of fire, avenues of approach, key terrain, obstacles, and cover and concealment
OB	order of battle
OBJ	objective
OBSTINTEL	obstacle intelligence
OCOKA	observation, concealment, obstacles, key terrain, and avenues of approach
OCONUS	outside continental US
OEG	operational exposure guidance
OI	operations and intelligence
OIC	officer in charge
OP	observation post
OPCON	operational control
OPLAN	operation plan
OPLAW	operational law
OPORD	operations order
OPSEC	operational security
OPTEMPO	operational tempo
ORL	ordnance release line
OTN	own the night
PA	physician assistant
PACE	primary, alternate, contingency, and emergency
PAO	public affairs officer
PARC	principal assistant responsible for contracting
PEO	peace enforcement operation
PIC	personal information carrier

PIO	police intelligence operation
PIR	priority intelligence requirements
PKO	peacekeeping operation
PL	phase line
PLGR	precision lightweight GPS receiver
PLL	prescribed load list
PLS	palletized load system
PMCS	preventive maintenance checks and services
PME	peacetime military engagement
PO	peace operation
POC	point of contact
POL	petroleum, oil, lubricants
POSNAV	position navigation
PP	passage point (graphics)
PSG	platoon sergeant
PSYOP	psychological operations
PZ	pickup zone
PZCO	pickup zone control officer
QM	quartermaster
RAAM	remote antiarmor mine
RAU	radio access unit
RCU	remote-control unit
REBS	rapidly emplaced bridge systems
REMBASS	remotely monitored battlefield sensor system
Retrans	retransmission
RF	radio frequency
RFI	request for information
RFL	restricted fire line
RI	relevant information
ROE	rules of engagement
ROI	rules of interaction
ROM	refuel on the move
ROS	reduced operational status (graphics)
ROWPU	reverse-osmosis water purification unit
RP	release point
RPG	rocket-propelled grenade
RPV	remotely piloted vehicle
RSTA	reconnaissance, surveillance, and target acquisition
RT	receiver-transmitter
RTF	ready to fight
RV	reconnaissance vehicle
RWS	remote workstation
S1	adjutant

S2	intelligence officer
S3	operations and training officer
S3 Air	assistant S3, air operations
S4	logistics officer
S5	civil affairs officer
S6	communications staff officer
SAO	Security Assistance Office
SAMS	standard Army maintenance system
SARSS	standard Army retail supply system
SBCT	Stryker brigade combat team
SBF	support by fire
SCATMINE	scatterable mine
SCATMINWARN	scatterable mine warning
SCL	strategic configured load
SD	self-destruct
SE	supporting effort (graphics)
SEAD	suppression of enemy air defense
SEN	small extension node
SF	special forces
SFF	self-forging fragmentation
SFLE	special forces liaison element
SGM	sergeant major
SGT	sergeant
SHORAD	short-range air defense
SHTU	simplified handheld terminal unit
SIDPERS	standard installation/division personnel system
SIGINT	signal intelligence
SINCGARS	single-channel ground and air radio system
SIP	system improvement plan
SIR	specific information requests
SITREP	situation report
SITTEMP	situation template
SIV	systems integration vehicle
SJA	staff judge advocate
SOCCE	special operations command and control element
SOCOM	special operations command
SOEO	scheme of engineer operations
SOF	special operations force
SOI	signal operating instructions
SOP	standing operating procedure
SOR	specific orders and requests
SOSRA	suppress, obscure, secure, reduce, and assault
SP	start point
SPBS-R	standard property book system-redesign
SPO	support operations officer
SPOTREP	spot report

SRP	soldier readiness processing
SSC	smaller-scale contingency
STAMIS	standard Army management information system
SU	situational understanding
SVML	standard vehicle-mounted launcher
SWT	scout weapons team (graphics only)
TAC	tactical
TACAIR	tactical air
TACCS	tactical air command and control specialist
TACON	tactical control
TACP	tactical air control party
TACSAT	tactical satellite
TAI	target area of interest
TALO	theater airlift liaison officer
TCAIMS	transportation coordinator's automated information for movement system
TCF	tactical combat force
TEP	theater engagement plan
TGP	terminal guidance operation
TGT	target (grahics)
TI	tactical internet
TIM	toxic industrial materials
TIS	thermal imaging sensor
TIRS	terrain index reference system
TM	team (graphics)
TMD	theater missile defense
TMIP	theater medical information program
TMS	tactical messaging system
TOC	tactical operations center
TOW	tube-launched, optically tracked, wire-guided
TPDT	tactical PSYOP development team
TPN	tactical packet network
TPS	tactical personnel system
TPT	tactical PSYOP team
T-REX	tactical range extension
TRP	target reference point
TSC	theater support command
TSOP	tactical standing operating procedure
TSS	target selection standards
TTP	tactics, techniques, and procedures
TVS	television sensor
UAV	unmanned aerial vehicle
UBL	unit basic load
UGR-A	unitized group ration-A

UGR-H&S	unitized group ration-heat and serve
UHF	ultra high frequency
UMCP	unit maintenance collection point
UMT	unit ministry team
UN	United Nations
UO	urban operations
US	United States
USAF	United States Air Force
USAID	United States Agency for International Development
USAOC	US Army special forces operations command
UTO	unit task organization
UW	unconventional warfare
UXO	unexploded ordnance
VE	velocity
VHF	very high frequency
VHSIC	very high speed integrated circuits
VIP	very important person
VMF	variable message format
VT	variable time
WAN	wide area network
WARNO	warning order
WCS	weapons control status
WIA	wounded in action
WMD	weapon of mass destruction
WP	white phosphorus
WSRO	weapons system replacement operations
XO	executive officer

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