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AIR ASSAULT DIVISION OPERATIONS

Tactics, Techniques, and Procedures

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If you visualize an enemy force out there that needs to be taken down..., visualize an armor force which would be obviously a strong opponent to us . . . . We would go out 150 kilometers and start working that force with our Apaches and take most of that force down.

We would only introduce our close battle forces for one or two reasons. One is to help clean that force up if that is necessary. The other is to establish a gas station for our Apaches so we can continue that fight even further.

That is how we would use our close battle forces. Now, they are used in other situations. You need close battle forces (foot infantry) to control populations; you need them to control facilities; you need them to take ownership of ground as you process yourself into a country because that is going to drive you to the center of gravity; that is going to drive you to the war termination event; that is going to drive you to victory.

Now, I'm not minimizing the importance of that force. But, what I'm suggesting to you is how you introduce it and when you introduce it is very different in terms of how we employ this force in the 10lst today and in the 1990s.

MG Keane
CG, 10lst Airborne Division (Air Assault)
April 1995

INTRODUCTION

The Evolution of the Air Assault Division

Air assault operations arose from the "airborne idea," one of several solutions suggested to break the brutal trench deadlock of World War I's (WWI) Western Front. In simplest terms, the airborne idea looked to new technology-the airplane-to transport fighting forces across contested front lines into the enemy's vulnerable rear areas.

During WWI, United States Army (USA) Air Corps pioneer Colonel Billy Mitchell drew up plans to parachute the 1st Infantry Division directly into the German-held city of Metz. The war ended before he could try this ambitious plan.

Experimentation before and during World War II (WWII) led to the creation of sizeable airborne forces in Great Britain, Germany, the Soviet Union, Japan, and the United States. All powers developed parachute troops built around light infantry formations. Each country also activated glider troops centered around more heavily armed combined arms forces which possessed some artillery, vehicles, and even, by 1944, some light armor.

Both parachute and glider forces displayed strengths and weaknesses. The paratroopers often flew from distant bases directly into battle. They could fight upon landing, conducting what we now call a forced entry. But, with their limited array of handheld weapons and their tendency to scatter wildly on night drops, parachute units often could not exploit the initial surprise of their landings.

Glider units could also launch from far-off bases into combat to force an entry. Gliders usually landed a more coherent, heavily armed element on the ground-provided the men and gear inside

survived the impact. However, being at the mercy of their towing airplanes, gliders typically spread out far from their assigned objectives. Therefore, even though the glider force could land a stronger force, it could rarely organize rapidly enough to capitalize on the element of surprise.

The airborne divisions of WWII enjoyed some noteworthy successes. German *falschirmjaegers* pounced on Belgium and Holland in 1940 and seized Crete in 1941. British and American paratroopers secured the beach exits at Normandy in 1944; a smaller contingent helped ease the Rhine crossings in 1945. Despite these triumphs, the constraints of 1940s technology stunted fill development of the airborne idea's potential. As good as airborne soldiers were, they were only able to conduct one assault landing per campaign. And, their lack of heavy armament and available motor transport made them slow in exploiting opening drops. Faced by enemy mobile reserves or stiff opposition on their drop zones (DZs), the paratroopers and glidermen suffered inordinately high casualties, bloody reminders of their lack of firepower and deficient battlefield mobility.

After WWII, technological and doctrinal developments changed the nature of parachute and glider forces. Carried in faster, larger aircraft and equipped with dramatically better airdrop equipment, parachute troops gradually evolved into today's all-weather, more heavily armed airborne units. Even more impressive developments altered the glider portion of the equation.

Army aviation, built around increasingly sophisticated rotary-wing aircraft, grew from an adjunct player to a primary member of the combined arms team. During the Korean War (1950-1953), the Army experimented with aerial medical evacuation (MEDEVAC), and the Marine corps attempted to move fighting men by helicopter. The helicopter offered all the advantages of a glider with two important additions: a pilot could steer it directly onto target, and he could repeat the process again and again.

The 1960s witnessed the birth of Army airmobility, an interim stage between the glider era and modem AASLT methods. The jet-powered utility helicopter (UH)-1 Iroquois (the ubiquitous Huey of Vietnam fame) provided the means. Lieutenant General Hamilton Howze's famous study group suggested the doctrine. The Vietnam War (1965- 1973) provided the testing ground.

In Vietnam, most all units used helicopters to fight, move, and resupply in the dense jungles and mountain ranges. Two divisions, the 1st Cavalry Division and the 101st Airborne Division, fought airmobile formations structured around the speed, range, and lifting power of the new turbine-powered Huey and cargo helicopter (CH)-47 Chinook helicopters.

Despite the many frustrations that dogged the Army in Southeast Asia, airmobile operations clearly showed great promise. However, the nature of the Vietnam War did not demonstrate the full potential of airmobility. Platoon and company engagements against an elusive light infantry opponent offered only the barest hints of the tempo, range, and hitting power of forces fighting aboard rotary-wing aircraft.

The goals in Vietnam were almost exclusively tactical—gaining and maintaining contact. Airmobile forces never struck deep into the enemy's unprotected vitals. Day operations, limited attack aviation roles, and company-size landings typified Vietnam-era use.

After Vietnam, technology and doctrine evolved toward contemporary AASLT operations. A second generation of Army aircraft offered the right tools—squad-carrying UH-60 Blackhawks, medium-lift CH-47D Chinooks, and the attack helicopter (AH)-64 Apache gunships, all capable of flying and fighting at night. The 101st Airborne Division (Air Assault) developed the tactics and techniques for using these potent new flying machines.

During Operation Desert Storm in February 1991, a hundred miles into Iraq, AASLT forces came of age. The 101st Airborne turned the Iraqi flank and severed enemy withdrawal routes. Attack helicopters and air assault task forces (AATFs) ranged across an area some 300 by 200

miles deep conducting 3 brigade-scale air assaults in 4 days. In doing so, the AASLT division helped determine the outcome of the Persian Gulf War.

The Air Assault Division's Combat Power

The 101st Air Assault Division is a microcosm of Army aviation. Every battlefield operating system (BOS) element in the 101st Airborne Division (Air Assault) uses Army aviation to accomplish its mission.

The AASLT division can extend Army operations to operational depth, habitually flying and fighting at night. Using organic Army aviation, the division can—

- Air assault one brigade with habitual attachments out to 150 kilometers (km) every 24 hours.
- Attack deep with three attack aviation battalions out to 150 kilometers every 24 hours.

As demonstrated by its performance during the Persian Gulf War, the division can operate at this pace for from 72 to 96 hours. After maintaining this operational tempo (OPTEMPO) for up to 96 hours, the division must reduce its OPTEMPO for a period of from 24 to 48 hours to plan, maintain, and sustain operations for division units.

The AASLT division rapidly deploys lead units by air to any contingency area in the world. When possible, it self-deploys its aviation assets to the contingency location.

The AASLT division's lead battalion task force (TF) can begin movement 18 hours after notification. Depending on the conditions in theater, the division can fly directly into a secure area in country or assemble at an intermediate staging base (ISB) outside the future area of operations (AO).

Working from an ISB, the division can conduct an AASLT forced entry. The division has the mobility and combat power to expand its initial forced lodgment in an aggressive, swift, and potentially decisive way. The remainder of the division deploys via airlift or sealift based on mission, enemy, terrain, troops, and time available (METT-T).

All types of Army divisions make important contributions to battlefield success. However, the AASLT division combines a particularly potent and impressive array of capabilities. It also operates farther and faster than other divisions and is generally free from terrain restrictions.

With the fire power of its attack aviation and the tenacity of its AASLT infantry, the AASLT division possesses the strength to hold its own against enemy armored regiments in conventional combat. Although much of the division normal] y deploys via sealift, the division's relatively light structure allows it to quickly move via airlift. Its aviation mobile combined arms punch makes it a force to be reckoned with in crisis-response contingencies. In short, the AASLT division constitutes a force designed to meet the majority of foreseeable armed conflicts or even operations other than war (OOTW).

Fundamentals of Air Assault Division Employment

The AASLT division is organized, equipped, and trained for decisive combat. Aviation and combined arms create remarkable agility bold leaders employ personal initiative to seize and hold battlefield initiative; and the division fights and sustains in the extraordinary depth unique to AASLT forces. To do this, they synchronize their efforts around the following five ideas (aligned with the tenets of Army operations):

1. FIGHT DEEP (depth). Potent combined arms teams jump the enemy's front lines and leap over forbidding terrain, all to get into the hostile rear area and hurt the enemy where he can least tolerate the damage. Over all other considerations, the wholehearted commitment to the tenet of

depth, exploiting the potential to go deep and slash at the enemy's vitals, characterizes the AASLT division.

2. FIGHT FAST (agility). Reaching almost four times the best speed of mechanized forces, an AASLT division can plan and execute actions faster than the enemy can react. Intensive training and a shared vision of the battlefield allow division leadership to see, think, decide, and act at an accelerated, synchronized tempo.

3. FIGHT HARD (initiative). Attacking deep into enemy rear areas with speedy rotary-winged aircraft, the AASLT division rapidly concentrates overwhelming combat power well behind enemy lines. Air assault commanders fight opportunistically, flying and marching to the sound of the guns, always alert for chances to destroy the enemy.

4. FIGHT OFTEN (synchronization). Decisive AASLT operations require the ability to deliver a relentless, synchronized succession of attacks, knocking the foe down and finishing him off. The division conducts combat operations on a continuous basis fighting around the clock. Division logistic units conduct sustainment operations both day and night to support the force. When necessary, the division conducts reconstitution operations for identified units.

5. FIGHT JOINT AND COMBINED (versatility). The AASLT division is a force-projection division, which can easily act in conjunction with air, naval, and space assets, and can fight as a partner with allied nations.

Synchronization of AASLT forces across time and space allows them to fight deep, fast, hard, and often. In an AASLT division, time is always at a premium. Synchronization measures must be routine and in place before fighting begins. Equally important, other Army commanders who direct the AASLT division should know how best to employ its unique capabilities.

PREFACE

The air assault (AASLT) division is unique. It provides the warfighting commanders-in-chiefs (CINCs) an operational ground force capable of attacking directly into the enemy's vulnerable rear areas. It fights according to the proven tenets of Army operations.

The AASLT organization and its tactics significantly differ from its armored and light infantry counterparts. To unleash its full potential soldiers must understand how this extraordinary force fights.

Field Manual 71-100-3 builds on the solid foundation of current doctrine that the following field manuals (FMs) discuss. Field Manual 100-1 describes the Army's role in achieving national objectives. Field Manual 100-5 explains how the Army fights campaigns. Field Manual 71-100 describes the general nature of the division and addresses its tactics. Field Manual 90-4 describes the principles for heliborne movements and landings by any Army force.

Field Manual 71-100-3 goes beyond these fundamental doctrinal works to explain how the AASLT division fights. It describes, through samples of tactics, techniques, and procedures (TTPs), how commanders might employ the division.

The proponent of this manual is headquarters (HQ), US Army Training and Doctrine Command (TRADOC). Submit changes and suggestions on Department of the Army (DA) Form 2028 and forward them to the Commanding General (CG), US Army, Combined Arms Center (CAC), ATTN: ATZL-SWW-D, Fort Leavenworth, KS 66027.

Masculine pronouns apply to both men and women.

CHAPTER 1

THE AIR ASSAULT (AASLT) DIVISION

This chapter describes the AASLT division's organization, capabilities, and limitations; its brigades, separate battalions, and separate companies. The AASLT division is austere and capable of conducting independent operations for only 48 hours. It makes optimum use of offensive, decentralized, irregular-type operations by highly trained small units.

The AASLT division can conduct deep operations, urban and jungle warfare, infiltration operations, and control land areas, including local populations and resources. It can destroy enemy armored vehicles on any battlefield.

The AASLT division uses helicopters to provide enhanced combat power and tactical mobility to infantry, artillery, combat support (CS), and combat service support (CSS) units (Figure 1-1, page 1-2). Division organization includes—

- A division headquarters and headquarters company (HHC), which controls assigned or attached units.
- Three AASLT infantry brigades, each consisting of an HHC and three AASLT infantry battalions. (Heliborne infantry battalions serve as the division's close combat units with the mission to close with and destroy the enemy and to seize and hold terrain.)
- The aviation brigade, which includes—
  - A brigade HHC.
  - Three assault battalions (to provide combat lift aircraft for troops and equipment).
  - Three attack helicopter battalions (AHBs) (to range fast and deep to destroy enemy forces).
  - One medium assault battalion (to provide combat lift for heavier troops, weapons systems, materiel, and supplies).
  - A command aviation battalion, which includes the division's pathfinder detachment and aerial electronic warfare (EW) detachment (to provide general support (GS) for the division's command posts (CPs), including courier service).
  - One air cavalry squadron (to conduct reconnaissance and security (R&S) operations).
- The division support command (DISCOM), which delivers CSS and consists of five assigned units:
  - The HHC, including the division materiel management center (DMMC), division movement control center (DMCC), and the division medical operations center (DMOC).
  - Three forward support battalions (FSBS) (to provide medical, supply, and maintenance support to the maneuver brigades).
  - One main support battalion (MSB) (responsible for medical, supply, maintenance, and truck transportation support throughout the division area, including bolstering the efforts of the FSBs).
  - One aviation intermediate maintenance (AVIM) battalion (to repair the division's aircraft).
  - An air ambulance company (to ensure aerial casualty evacuation).
- The air defense artillery (ADA) battalion, which counters enemy air threats.
- The engineer battalion, which concentrates on enhancing mobility and survivability (M/S).
- The signal battalion, which installs reliable, secure, fast, and mobile communications.
- The military intelligence (MI) battalion, which provides intelligence (intel), counterintelligence (CI), and EW support
- The chemical (cml) company, which provides decontamination, flame field expedients, and smoke generation.
- The military police (MP) company, which-
  - Provides support by combatting enemy forces in rear areas.
  - Conducts area security missions, providing security to critical division resources.

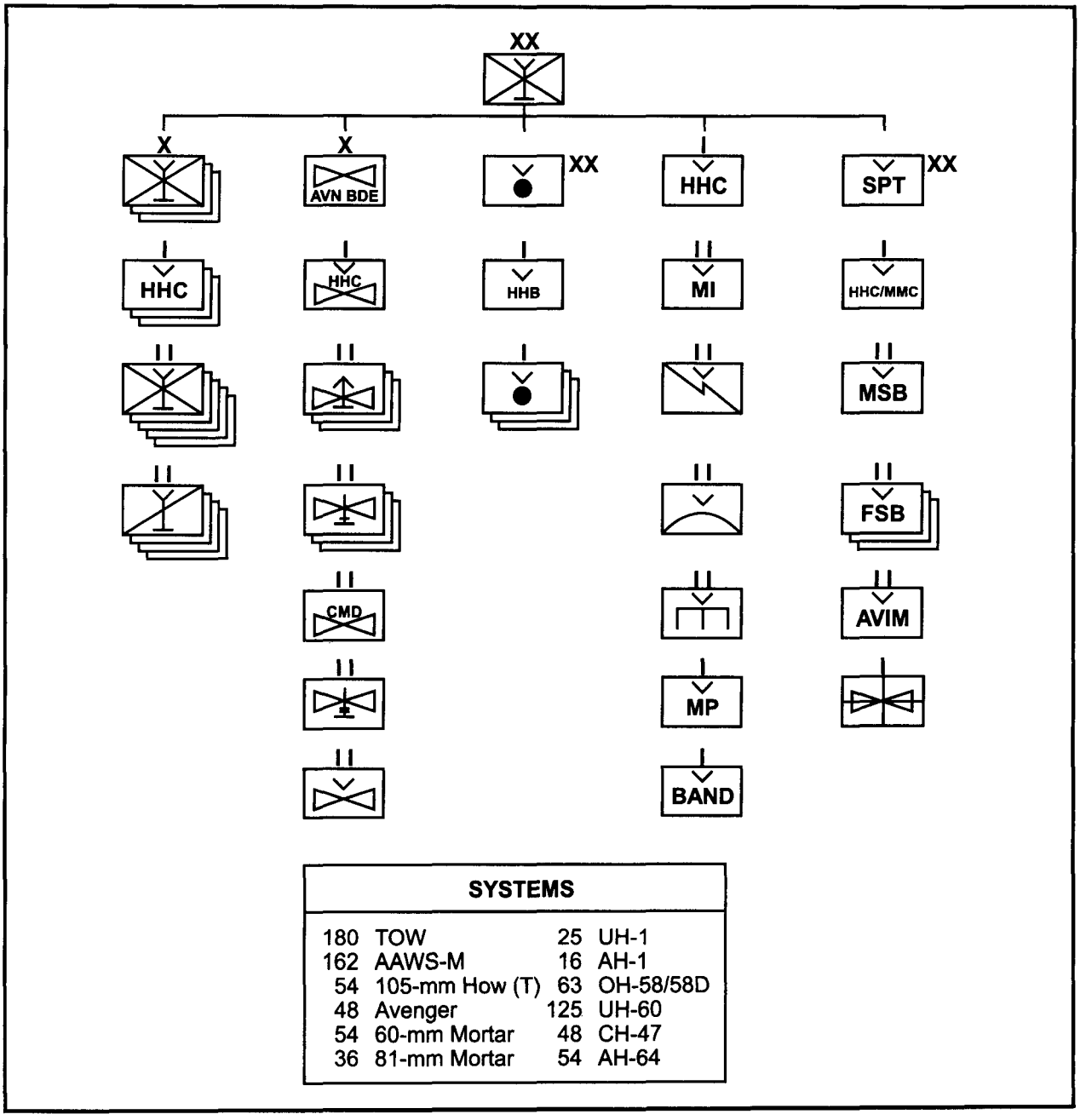


Figure 1–1. Air assault division task organization

– Expedites movement of critical combat resources while conducting battlefield circulation control (BCC) missions.

– Evacuates and controls enemy prisoners of war (EPWs).

– Provides police services, keyed to the echelon commander's priorities, as needed.

- Nondivisional units, usually allocated to an AASLT division, include air traffic control (ATC), target acquisition, additional artillery, engineering assets, parachute riggers, and added CSS. Additional aviation is also often assigned.

- A corps support group (CSG) is normally allocated to the AASLT division upon commitment.

The CSG provides additional CSS capabilities for sustained operations.

In organization for combat, the principal decision involves allocation of aviation assets. The commander must mass all aviation assets to fully achieve the aviation brigade combat capability for lift and AHB assets.

Situational factors may dictate distribution of some or all aviation assets. The commander and staff must consider all the factors affecting the division before recommending or making a decision to split aviation assets (Figure 1-2). Rarely would aviation be task-organized to a battalion to accomplish a mission.

The AASLT division—

- Conducts an AASLT operation for one AASLT brigade with its habitual attachments out to 150 kilometers once every 24 hours.
- Attacks deep, along with or separate from a brigade air assault, with three attack aviation battalions out to 150 kilometers once every 24 hours.

Characteristically, the division exercises its capabilities—

- By fielding organized, trained, and equipped combat, CS, and CSS units to conduct heliborne warfare. Army aviation integration spans the entire division.
- By rapid deployment to the theater of war by airlift and/or self-deploying Army aviation.
- By forced entry into the theater when launching from a secure ISB.
- By forced entry into the theater when launching from a secure ISB.
- By setting the conditions for forced entry operations using joint and organic fires.
- By flying and fighting at night.
- By overflight of terrain obstacles, including cities, rivers, mountains, and forests.
- By aerial penetration and/or overflight of the line of contact (LC) and enemy front-line forces.
- By operations at speeds exceeding 216 kilometers per hour.

The division exhibits several noteworthy limitations:

- Weather extremes affect flight operations.
- Enemy air defenses threaten division aviation operations.
- Resupply of fuel, ammunition, and aviation parts requires special attention.
- The division is only 70-percent mobile in ground vehicles; it relies on aircraft to move around the battlefield.
- Like most Army forces, the division remains vulnerable to nuclear, biological, and chemical (NBC) weapons.
- Division CPs, logistic sites, and pick-up zones (PZs) are vulnerable to enemy indirect fires, air strikes, and ground attacks.
- The division can only air assault one brigade every 24 hours. While augmentation with corps or joint task force (JTF) assets or both can increase this, the number of organic aircraft precludes a larger assault. Consequent effects on other concurrent combat, CS, and CSS is dramatic if not well thought out in advance.

When aviation is—	The size of the air assault can be—	The amount of division-controlled attack aviation is—
Massed at division.	One maneuver brigade with attachments.	Three attack aviation battalions.
Lift units are distributed. Attack units are massed at division.	One battalion task force per brigade.	Three attack aviation battalions.
Lift units are distributed. Attack units are distributed.	One battalion task force per brigade with attack aviation.	None.

Figure 1–2. Aviation task-organization options

This applies particularly to the division's valuable medium lift assault aircraft.

- In and of themselves, none of these limitations completely rule out AASLT operations. However, if not addressed each can stunt the performance of AASLT forces and reduce the likelihood of decisive results.

THE MANEUVER BRIGADE

The division's three maneuver brigades are the principal headquarters charged with integrating and fighting AASLT combined arms teams. An AASLT division fights by continuously leapfrogging brigades either forward, laterally, or to the rear, moving one brigade-size unit every 24 hours. As a result, maneuver brigades routinely receive attached, operational control (OPCON), and direct support (DS), CS, and CSS forces.

In strictest terms, only the HHC is an organic brigade element. The brigade may be assigned from two to five maneuver battalions with three AASLT infantry battalions as the norm. When task-organized, brigades often receive—

- A DS field artillery (FA) battalion.
- An OPCON attack aviation battalion.
- An OPCON aviation battalion TF (assault, medium assault, command aviation, air traffic controllers, and pathfinders).
- A DS forward support battalion (FSB).
- A DS air defense (AD) battery.
- A DS engineer company.
- A DS MI company team (electronic collection and jamming (C&J), ground surveillance radar (GSR), CI, and EPW interrogation).
- A DS chemical platoon (smoke and decontamination).
- A DS MP platoon.
- Two DS signal operations (SO) teams.

The brigade—

- Conducts a brigade air assault.
- Conducts or directs a battalion air assault.
- Secures terrain and facilities.
- Destroys and defeats enemy forces.
- When task-organized, fights independently for from 24 to 72 hours or fights under the control of another Army division, JTF, or combined command.

There are two limitations. One is reliance on aviation for battlefield mobility, with the consequence of allowing for weather extremes, enemy air defenses, aircraft maintenance, and aircrew endurance. The other includes the significant CSS requirements for fuel, ammunition, and aviation parts and the demand for a major aviation resupply effort, use of US Air Force (USAF) airlift and airdrops, or ground lines of communication (LOC).

The AASLT infantry battalions that constitute the brigade's primary maneuver component close with the enemy to destroy forces, secure and defend terrain and facilities, and carry out air assaults and raids. With an HHC, three rifle companies, and an antiarmor company, these battalions have sufficient power and flexibility to fight against enemy armored and dismounted troops.

The AASLT infantry battalions train for night heliborne operations. Under certain conditions, an AASLT battalion TF might perform independent missions such as raids and rear operations.

THE AVIATION BRIGADE

The AASLT division's aviation brigade contains the forces most responsible for the division's tempo, range, and combat power. The aviation brigade conducts combat operations, especially deep attacks, either with air assaults or separately. It can act as a fourth maneuver brigade when task-organized with combat, CS, and CSS units.

During operations, the division may allocate lift units to maneuver brigades or DISCOM. The air cavalry frequently works directly for the division, which allows aviation brigade headquarters to focus on deep attack aviation missions and future operations as well as to synchronize all operations (close, deep, and rear).

When allocated by higher headquarters, the brigade accepts OPCON and/or attachment of corps aviation units. The brigade—

- Controls a brigade-scale air assault as the air mission commander's (AMC's) headquarters.
- Attacks deep with at least three attack aviation battalions (more if provided by the corps or JTF).
- Fights as a fourth maneuver brigade, when properly augmented, and commands and controls from two to five maneuver battalions (attack helicopters or ground battalions).
- Shifts resources rapidly and in strength to the limits of range and speeds unhampered past intervening terrain.
- Provides liaison and coordination elements to maneuver brigades.

Six limitations influence the aviation brigade's performance:

1. Weather extremes.
2. Enemy air defenses.
3. High consumption of ammunition, fuel, and aircraft repair parts.
4. Lack of any substantial capability to dig in and defend aircraft staging and servicing areas unless augmented.
5. A significantly broad span of command and control (C^2) if the brigade serves as the AMC for brigade-size AASLT operations and simultaneously conducts deep attack missions with its attack aviation battalions.
6. Aircrew endurance.

The AASLT division has over 300 aircraft. However, to maintain a high OPTEMPO, the division requires additional aviation augmentation. By design, only one-third of the ground force can air assault at any one time. Therefore, aviation's task organization becomes one of the most crucial issues in determining the success of divisional operations.

DIVISION ARTILLERY (DIVARTY)

The DIVARTY headquarters staff synchronizes all supporting fires and provides FA fire support to the AASLT division. DIVARTY headquarters consists of a CP, liaison section, fire support element (FSE), communications platoon, survey planning and coordination element, and meteorological section.

Air assault operations challenge DIVARTY in both coordination and delivery of supporting fires because the division habitually operates well outside the firing radius of tube artillery. DIVARTY coordinates alternate fires and AASLT FA batteries into and adjacent to maneuver-unit landing zones (LZs).

The DIVARTY—

- Coordinates and masses all Army, joint, and combined lethal and nonlethal fire support, including mortars, EW, tube artillery of all types, rocket and missile artillery, air strikes, and naval gun fire (NGF). DIVARTY FSE soldiers attached to all forces ensure continuous support, coordination, and liaison.
- Commands and controls reinforcing artillery battalions and brigades.
- Provides DS AASLT field artillery for maneuver brigades.
- Directs and delivers counterfire.
- Conducts suppression of enemy air defenses (SEAD), coordinates joint suppression of enemy air defense (JSEAD), and/or neutralizes or destroys enemy AD assets within their capabilities.

DIVARTY exhibits four limitations:

1. Organic howitzers cannot fire most improved artillery munitions.
2. Reinforcing self-propelled (SP) tube and missile batteries cannot air assault.
3. Air assaults usually far outrange most indirect fire support means, especially all varieties of tube artillery.
4. Air assaults and deep aviation attacks consume large quantities of ammunition to suppress,

neutralize, and destroy enemy air defenses, fire support, and mobile reserves.

DIVARTY and the aviation brigade work together to set conditions for successful cross-forward line of own troops (FLOT) operations. Fire support superiority is essential to deep air assaults and deep attack operations.

THE DIVISION SUPPORT COMMAND (DISCOM)

Combat service support presents many challenges for the AASLT division. Massed use of rotary-wing aircraft demands substantial fuel, ammunition, and repair parts. Supply, medical, maintenance, and transportation support must span vast distances and displace forward in tempo with AASLT operations.

The DISCOM ensures CSS to far-ranging AASLT forces. DISCOM—

- Operates a division support area (DSA) to provide supply, medical, maintenance, transportation, and CSS supervision to the entire division; DSA elements build on brigade forward logistics bases (FLB) to create up to two forward operations bases (FOBS).
- Provides DS multifunctional FSBs to maneuver brigades to coordinate all CSS and to deliver focused supply, medical, and maintenance support; an FSB can air assault a tailored forward logistics element (FLE) alongside the infantry.
- Conducts AVIM for the division.
- Provides air ambulance support to the division with a three-aircraft team forward with each maneuver brigade FSB.
- Closely supervises medical operations, materiel management, and internal movements through dedicated operations centers.

The DISCOM operates under four important limitations:

1. It cannot adequately dig in and defend its service elements and commodities using only organic assets; in addition, FSBs are not staffed for 24-hour operations.
2. It must have a ground LOC if weather precludes Army aviation (AAVN) or USAF airlift support; aviation units cannot sustain combat operations without a constant infusion of supplies.
3. Armored units task-organized to the division can overtask the austere DISCOM. The armored unit's parent organization ensures that a full support package accompanies the armored unit to the AASLT division.
4. The DISCOM requires a CSG to sustain its operations (especially with Class III and V supplies and transportation assets) and support attached units such as armored forces to the division. The DISCOM can support the division for only a few days without resupply from the CSG.

Like artillery and other combat multiplier forces, the DISCOM features units and equipment optimized to employ AAVN. To guarantee continuous AASLT operations, it must receive its share of division aviation.

THE AIR DEFENSE ARTILLERY (ADA) BATTALION

Freedom from enemy air attacks permits the AASLT division to fight and sustain its operations and forces. Although most conceivable contemporary threats will not gain air superiority over an American corps or JTF, strong individual raids remain a concern. Air defense is vital given the lucrative targets which an AASLT division's aviation assembly areas (AA), CSS sites, and PZs pose.

The ADA battalion consists of one HHB and four firing batteries. It provides forward-area air defense (FAAD), an air battle management operations center (ABMOC), and early warning of enemy missile, fixed-wing, and rotary-wing threats. One firing battery habitually provides DS to each maneuver brigade; the fourth supports aviation brigade, DIVARTY, DISCOM, and other division troops.

The ADA battalion's capabilities include—

- Displacement to ensure continuous coverage by AASLT, vehicle, or foot.
- Liaison to supported units.

- Reliance on a light, relatively simple, high-probability of hit and/or probability of kill weapon system (such as the Stinger).
- Small, light elements linked by the ABMOC to ensure integrated low-altitude air defense.
- Integration of all organic and supporting AD networks through the ABMOC including other Army, joint, and combined firing and early warning systems.
- Control and integration of attached, OPCON, and reinforcing AD units.

The commander and staff must also consider four unit limitations:

1. The division relies on the corps or JTF for high- to medium-altitude air defense (HIMAD).
2. The division receives warnings of inbound threats through the corps or JTF.
3. The current ADA organization does not include any cannon system for point defense of targets, and overreliance on the Stinger family of weapons may simplify enemy countermeasures.
4. Vehicle-mounted ADA systems require medium assault aviation to displace by air.

The commander and staff always analyze the METT-T factors to determine how much, if any, ADA support is to accompany maneuver forces during an air assault.

THE ENGINEER BATTALION

Air assault forces employ engineers to shape terrain for survivability and countermobility. Light engineer units breach and reduce obstacles and perform general engineering tasks to build and upgrade roads, bridges, airstrips, and LZs or PZs. Air assault engineers work throughout the division AO from the front lines to the rear boundary.

The engineer battalion consists of one HHC and three line companies. Typically, one line company is attached to each maneuver brigade. The engineer battalion's capabilities include—

- Coordinating all divisional engineering efforts, including integrating nondivisional units.
- Providing AASLT engineers and additional engineer support for committed brigades.
- Providing liaison to supported units.
- Conducting M/S and limited engineering tasks.
- Fighting as infantry.

The engineer battalion has five limitations:

1. It requires additional support from corps or JTF levels for bridging, general engineering, and survivability support to rear area units.
2. It only performs limited survivability tasks with organic equipment. (DISCOM and the aviation brigade share the equipment that supports the division HHC or they strip out assets normally sent to maneuver brigades.)
3. Engineers require medium lift aircraft to air assault their equipment.
4. Employment as infantry requires addition of fire support teams.
5. The division has no organic bridging to support ground supply truck convoys conducting river crossings.

THE MILITARY INTELLIGENCE (MI) BATTALION

Intelligence and electronic warfare (IEW) allows AASLT forces to see the battlefield while denying the enemy the same opportunity. The MI battalion consolidates and integrates most of the specialized, technical aspects of the various collection and EW systems.

The MI battalion includes a headquarters and a headquarters and headquarters support company (HHSC), three direct support MI companies, one GS company, and a long-range surveillance detachment (LRSD). The companies are organized as follows:

- The HHSC includes—
  - Battalion headquarters and the analysis and control element (ACE).
  - The maintenance section.
  - The communications and electronics (C&E) maintenance section.
  - A dining facility (DFAC) section.

- Direct support companies include—
  - The C&E platoon with three low-level voice intercept (LLVI) teams and one electronic countermeasures (ECM) team.
  - The intelligence and surveillance (I&S) platoon with a counterintelligence/interrogation section and a remotely monitored battlefield sensor system (REMBASS) GSR section.
- The GS company includes—
  - A signal intelligence (SIGINT) platoon.
  - Three GSR squads, five REMBASS teams, one interrogation of prisoners of war (IPW) section, and one CI section.
  - An I&S platoon with a GSR section.
- An LRSD that includes—
  - Two base radio teams.
  - Six surveillance teams.

The MI battalion—

- Collects, jams, and performs surveillance in the division's AO.
- Provides a DS AASLT company team to each maneuver brigade.
- Provides a GS company in support of the division.
- Ensures continuous liaison to supported units.
- Provides aerial jamming to suppress enemy communications in support of division operations.
- Provides trained LRSD teams to the division for employment on and in support of division missions.

The MI battalions's major limitation is that air assaults range well beyond the effective radius of C&J systems. Therefore, corps or JTF and national resources must look deep for the division until the division can deploy these assets forward on the battlefield.

Commanders and staffs consider METT-T factors for employing MI assets. These assets can continue to support the division's close operations or they can perform air assault deep behind enemy lines to collect intelligence for future operations. Military intelligence assets are normally not left in reserve.

THE SIGNAL BATTALION

Air assault division operations place great burdens on military communications by rapidly stretching networks to extreme ranges. The AASLT division signal battalion provides the following:

- High-frequency transmissions.
- Division frequency modulated (FM) retransmissions.
- Single-channel tactical satellite (TACSAT) broadcasts.
- Multichannel TACSAT services.
- Mobile subscriber equipment (MSE) service to pass voice, data, and facsimile (FAX) messages.

The signal battalion links major division CPs, maneuver brigades, the aviation brigade, DIVARTY, DISCOM, the ADA battalion, the engineer battalion, and the MI battalion. It consists of an HHC, two area signal companies, and a signal support company. The battalion organizes for combat by providing an MSE "backbone" network with extension teams providing connectivity of divisional units into the tactical phone network. It—

- Creates and maintains redundant division communications networks for voice, data, and facsimile.
- Uses air assault MSE extension teams with maneuver brigades as part of the brigade TF.
- Dispatches a forced-entry platoon trained and equipped to establish single-channel communications in the initial objective area.
- Provides single-channel TACSAT during air assaults. (The division has 28 man-packed TACSATs with an additional single-channel TACSAT capability in the console of each C^2 aircraft.)

There are two limitations when using air assault MSE equipment:

1. Air assaults routinely exceed the bounds of terrestrial line of sight (LOS) communications systems and may require installation of LOS relays.

2. An MSE system requires medium lift assault aircraft for transport.

Combat commanders may air assault MSE units forward if they are willing to commit sufficient medium assault aircraft. Once in place, MSEs allow the AASLT task force commander to communicate through the theater network.

THE CHEMICAL COMPANY

The AASLT division's chemical company offers dual-purpose smoke and decontamination platoons. It includes the division chemical section, company headquarters, and three smoke and/or decontamination platoons. The chemical company—

- Operates the division's chemical staff section, including NBC threat warning systems for division CPs.
- Normally—
  - Provides an NBC defense platoon in DS to each maneuver brigade.
  - Is METT-T dependent.
  - Is capable of decontamination support or of producing a 2-kilometer-wide smoke screen when in the mobile mode.
- Constructs and emplaces flame field expedient devices.

Five limitations which hinder the chemical company include the following:

1. If all three platoons are task-organized to maneuver brigades, no assets remain to support DIVARTY, aviation AAs, CPs, and CSS sites.
2. Decontaminating large CSS facilities can exceed the company's capabilities.
3. The chemical company is not manned to simultaneously deliver smoke and conduct decontamination; one platoon cannot conceal a decontamination site with organic smoke.
4. Smoke operations impose a significant need for fuel on top of an already substantial divisional requirement.
5. Smoke and decontamination assets are significantly reduced once they AASLT forward because of the inability to resupply water and fog oil.

THE MILITARY POLICE (MP) COMPANY

Air assault MPs operate much the same as those in other divisions, albeit over an extended area. The company includes the division provost marshal (PM) section, the company headquarters, and four platoons. At threat level 1, capabilities include—

- Providing an MP section to exercise C^2 over assigned and attached units.
- Performing the following missions, but not simultaneously:
  - Battlefield circulation control operations to expedite movement of vehicular traffic and individuals.
  - Area security operations employing mobile 3-man teams with crew-served and individual weapons capable of defending against dismounted infantry.
  - Area reconnaissance in conjunction with mobile patrol operations in the division rear area.
  - Manning one EPW and/or civilian internee (CI) collecting point within the division rear area.
  - Temporarily detaining US military prisoners.
  - Battlefield law and order operations to alleviate major problems endangering the successful accomplishment of the division's mission (for example, war crimes and criminal diversion of war materiel).
  - Augmentation by the division band.
  - Security operations for the division main CP and all-source production section (ASPS) and other missions, as required.
  - Enemy prisoner of war operations.
  - Extensive area security operations within the division area.
  - Assisting the host nation (HN) in joint law enforcement operations within the division.

– Providing support during division river crossing operations and passage of lines.

– Providing support in convoy security.

The MP teams are capable of responding to and disrupting or defeating nonmechanized incursions during daylight hours involving threat levels I and II. Night fighting capabilities are limited. However, when equipped with the required number of night vision systems, MP teams can effectively perform area security operations. They can delay level III threat forces for short periods of time, although at a heavy cost in personnel and equipment.

The MP company has three limitations:

1. If three platoons operate with the maneuver brigades, the remaining platoon will not be able to cover the division rear area without augmentation.
2. Each platoon has only six three-person MP teams with which to accomplish the mission.
3. More than 100 EPWs per day, or a corps' or JTF's inability to relocate EPWs from the division, would rapidly overtax the organic MP's capability to process prisoners.

The MP company depends on—

- The appropriate elements of the division or corps for legal, financial, and personnel and administrative services.
- The appropriate elements of the division for transportation support to provide back-haul for evacuation of EPWs from the brigade rear to the division collection point.
- The division HHC for food services for the company headquarters and one platoon and the forward supply company for the other three platoons when providing direct support to the brigades.
- The unit ministry team organic to HHC for religious services.
- The HHC medical battalion for combat health support (CHS), including evacuation.
- Augmentation by corps MP assets.

NONDIVISIONAL ATTACHMENTS

The AASLT division operates most effectively when augmented by key nondivisional units. These units fill gaps in the basic organization, reinforce capabilities already on hand, and ensure support for specific situations.

Assignment of a CSG should always occur when committing the AASLT division to reinforce and provide DS and GS to other nondivisional units. Nondivisional elements typically allocated to the AASLT division include—

- An artillery target-acquisition detachment to assist in finding enemy firing batteries.
- A towed 155-millimeter (mm) battery to provide some capability with improved munitions while still retaining the ability to perform air assaults on medium lift aircraft.
- An engineer light equipment company to assist in road and airfield construction and repair and to supplement the division's survivability assets.
- A parachute rigger detachment to prepare air-delivered supplies and equipment.
- An air traffic control company.
- Some USAF combat aircraft and airlift liaison teams.
- A USAF weather team.

Reinforcements for capabilities already on hand include—

- Additional medium lift assault, attack, and assault aviation units (in order of preference based on METT-T factors).
- Reinforcing artillery battalions and brigades.
- Additional CSS, especially fuel and ammunition transportation and storage units.
- Additional AD batteries and battalions.
- Additional engineers, especially survivability systems, general engineering units, and bridging units.
- Additional MI assets.
- Additional chemical platoons and companies.
- Additional MP platoons and companies.

Support for certain situations includes—

- Civil affairs (CA) units.
- Psychological operations (PSYOP) units.
- Liaison for special operations forces (SOF).
- Heavy battalion TFs or brigades (usually OPCON).

Assignment of a medical group should be considered when committing an AASLT division separate from a normal corps support base, particularly in early entry and/or split-base operations. The medical group will provide the full range of CHS necessary for the sustainment of the division.

Corps medical elements typically allocated to the AASLT division and supporting corps nondivisional units include—

- A combat support hospital to provide hospitalization for all classes of patients.
- Forward surgical teams attached to the FSB medical company of each maneuver brigade.
- Air and ground MEDEVAC units to evacuate patients from the division and to augment divisional medical units when required.
- Area support medical elements to provide echelon I and II treatment for nondivisional units and reinforcement for divisional medical units.
- Dental, preventive medicine, combat stress control, and veterinary elements as required for all supported forces.
- A medical logistics support detachment to medical supply and services for divisional and nondivisional medical units.

CHAPTER 2

BATTLE COMMAND

In modern battle, the sheer magnitude of available information challenges leaders at all levels. Ultimately, they must assimilate thousands of bits of information to visualize the battlefield as it actually is and then direct military efforts to achieve victory.

Thinking and acting are simultaneous activities for commanders in battle. The commander leads, conceptualizes, synchronizes, and makes timely key decisions. The staff acquires, synchronizes, and disseminates decisions and information.

By definition, AASLT operations feature extended distances and tremendous speed of execution. Air assault operations involve deep penetrations, wide sweeps, and bypassing enemy forces and terrain obstacles, almost always at night. To quickly react to intelligence on hostile forces, planning and execution must keep pace with the accelerated AASLT tempo, maximizing surprise to ensure effective execution at the decisive place and time.

The AASLT operation's unit leaders must have flexibility, the ability to aggressively execute decisions, and the capability to fight based on mission and intent rather than bulky formal orders. To work swiftly under pressure, they must synchronize their efforts based on a sensible AASLT command structure, a well-organized CP network, a sound planning process, well-defined execution techniques, and important airspace control measures.

FUNDAMENTALS

Command and control are not one and the same. They are separate and distinct with differing applications to how the division fights. Command is the art of making decisions, assigning missions, prioritizing resources, leading subordinates, and focusing the entire division's energy to accomplish its objectives. *Control* is defining limits, computing requirements, allocating resources, prescribing requirements for reports, monitoring performance, identifying and correcting deviations from guidance, and directing subordinate actions to accomplish the commander's intent.

Control allows commanders freedom to operate, to delegate authority, to lead from any critical point on the battlefield, and to synchronize actions across the entire area of operations. Moreover, the C^2 system helps the commander and his staff adjust plans for future operations even while focusing on the current fight. Related tools for implementing command decisions include communications, computers, and intelligence.

GUIDELINES

Basic time-tested imperatives drive the successful development and efficient operations of divisional CPs and determine their effectiveness in combat; for example—

- A headquarters must be small to be efficient.
- There can be only one CP exercising control at any one time, just as there can be only one commander.
- A commander must limit the number of voices he hears if he is to be effective in a crisis.
- A commander should avoid lengthy prepared briefings and rely on unstructured, unscheduled discussions if he wants his staff to keep him informed. (Not that briefings in CPs do not occur; they occur periodically to keep everyone up to date and to obtain needed information.)
- Organizing a CP is a science whose purpose is to acquire and disseminate information in a prioritized fashion.

The commander should frequently visit subordinate CPs. The best way for him to get information is by firsthand observation and listening to subordinate commanders and their command nets.

COMMAND POST RELATIONSHIPS

Divisional CPs are centers for planning and coordinating acquisition as well as for generating, processing, and disseminating information and orders.

They exist to support the commander wherever he may be on the battlefield.

Within current force structures, commanders can effectively organize, and staffs can implement, the division C^2 system. However, commanders and staffs must clearly understand the relationship between C^2 facilities supporting the division and doctrinal functions that each element of the total effort performs.

Doctrinally, the division fights one simultaneous battle, consisting of deep, close, and rear actions, as one seamless fight which occurs during a single time frame. If the division fights only one battle, then common sense and the principle of unity of command mandate that it have only one central CP (Figure 2-l).

The main CP manifests unity of command. The division resources tactical (TAC), and rear CPs as extensions of the main CP, to improve synchronization of combat power throughout the battlefield.

The AASLT division calls their TAC CP an assault CP (ACP). This is different from the doctrinal assault CP which is a portion of the main CP that deploys with the division's lead units during a force-projection operation.

The primary concern of the TAC CP is the close operation; the rear CP focuses on rear operations. Each CP performs its roles and functions within the division's overall mission, which the main CP directs.

With three CPs simultaneously participating in the battle, confusion can result. Who is really in charge? Unit standing operating procedures (SOPs) must clearly delineate each CP's authority and responsibility.

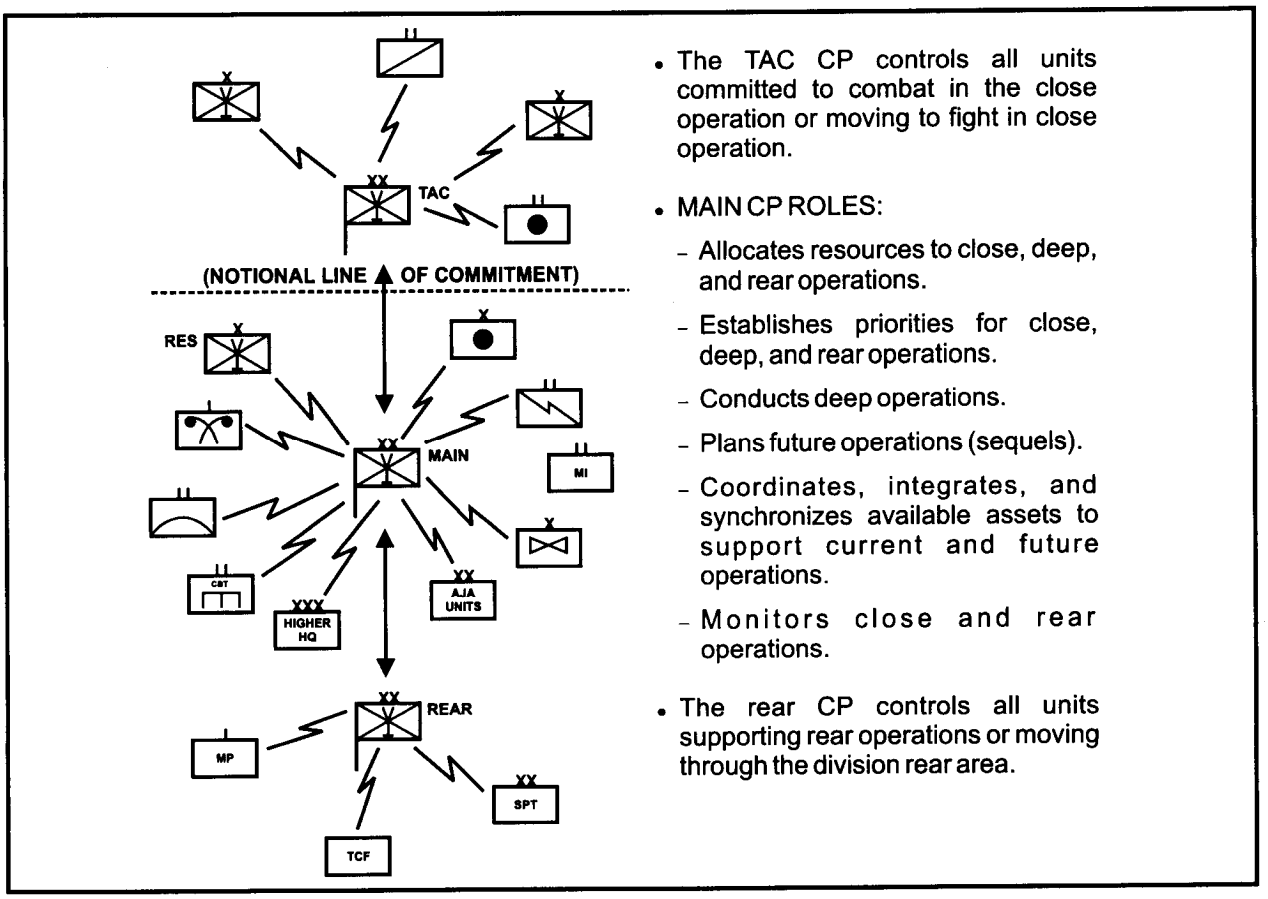


Figure 2–1. Division CP employment: roles and relationships

Division CP staff activities have five common functions:

1. To provide information.
2. To make estimates.
3. To make recommendations for decisions.
4. To prepare plans and orders.
5. To supervise and monitor the execution of decisions.

Only the division main CP has the capability to plan branches and sequels to the current mission.

Because of the speed with which the AASLT division executes moves, it has a fourth CP called the jump CP, usually configured with and moved by helicopter assets. The commander controls the AASLT division through the jump CP, TAC CP, and the main and rear CPs.

Command posts provide the physical facilities, staff expertise, and communications the division needs to direct wide-ranging, rapid AASLT operations. This CP network provides the control, coordination, and communications systems (C^3) from which the division plans, executes, and sustains AASLT operations.

NOTE: Figure 2-2 describes the usual commanders and functions of each CP.

COMMAND POST	COMMANDER	FUNCTIONS
Jump	CG/ADC-O during AASLT operations.	Provides immediate command presence.
TAC	ADC-O during normal non-AASLT operations.	Conducts close operations.
Main	CofS.	Synchronizes close, deep, and rear operations. Conducts deep operations. Plans future operations.
Rear	ADC-S.	Sustains rear operations.

Figure 2–2. Air assault division CP organization

Jump Command Post

The jump CP—

- Serves as a highly mobile CP; is available and METT-T dependent during offensive AASLT operations; and is not mandatory to use but may be able to control the battle.
- Places the commander or the assistant division commander for operations (ADC-O) well forward.
- Allows the CG/ADC-O to fly into the objective area with the lead maneuver brigade.
- Serves as the de facto TACCP until the CG/ADC-O and the CP rejoin.
- Moves aboard two UH-60 aircraft, one of which contains a command console, and includes a specially configured C^2 aircraft with appropriate staff and communications.
- Operates on the ground for up to 24 hours. (Air endurance depends on the precise mission profile, but usually exceeds 3 hours).

Jump CP personnel normally include—

- The CG or ADC-O.
- The assistant chief of Staff (COfs) G2 (intelligence) representative.
- The assistant Cofs, G3 (operations and plans) representative.
- The FSE representative.
- The air liaison officer (ALO).
- The air and naval gunfire liaison company (ANGLICO), if attached.
- Signal personnel.

Tactical Command Post (TAC CP)

The TAC CP—

- Primarily focuses on close current operations and should not be distracted from that focus.
- Is configured and operates on organic tactical vehicles that can move by ground or AASLT means.

- Locates well forward with the maneuver brigades to respond to the close operation's immediate tactical requirements.
- Is minimally manned to support maneuver, intelligence, mobility, and fire support.
- Controls only units committed to or engaged in close combat. (The main or rear CPs perform all other C^2 functions and control units within the division AO not committed to close operations.)
- Stands ready to assume the main CP role if necessary, especially during early phases of contingency operations.
- Usually accompanies brigade air assaults.

Division Main Command Post

The division main CP performs seven primary functions to support the division battle. It also performs the following collateral support functions for the TAC and rear CPs: planning, coordinating, integrating, synchronizing, prioritizing, allocating resources, and monitoring close and rear operations. The division main CP normally moves by ground on organic vehicles, but any or all of it could move in a helicopter.

If the division receives allocation of nondivisional units, a staff element at the main CP focuses on those elements and integrates their current and future support to close, deep, or rear operations. The main CP rarely makes immediate tactical decisions because it does not have the most current information. However, it does make decisions, based on requests from the TAC and rear CPs, that support immediate close and rear operations.

The main CP controls all aspects of the division battle, receiving input from the TAC, jump (if employed), and rear CPs and higher, lower, and adjacent units. The main CP synchronizes all operations and makes plans that affect committed forces several days out.

The main CP is the focal point for integrating all intelligence. The main CP is usually just behind the maneuver brigades' rear boundaries at a central location which provides necessary cover, concealment, and access. It rarely air assaults.

Division Rear Command Post

The division rear CP performs sustainment, terrain management, movement control, security, and fire support. The rear area is no less an assigned AO than is a brigade AO; there are numerous fire support requirements for rear tactical operations, tactical air (TACAIR) support, artillery, and electronic warfare.

The AASLT division rear CP includes headquarters, operations, intelligence, and CSS cells. It habitually collocates with DISCOM.

COMMAND POST OPERATIONS AND TECHNIQUES

Alternate Command Post

The division designates an alternate CP with a clear delineation of its purpose and roles. It does not need to perform all main command post C^2 functions. If a catastrophic loss occurs, an alternate CP enables the division to sustain continuous C^2 operations until surviving elements rally at another location, assess casualties and damage, reorganize, and reestablish critical division C^2 functions.

The alternate CP's communications facilities must be able to assume the destroyed CP's critical functions; it normally does not support CP displacements.

An alternate division CP retains the capability to command and control operations for its own units. No subordinate unit CP within the division has enough personnel to simultaneously execute its own primary C^2 functions and to support those of a division CP. If attempted, the division CP's functions would quickly consume the alternate CP's austere C^2 facilities and assets and degrade operational effectiveness.

The designated alternate CP activates when a CP informs the command net of its attack, destruction, or inability to function; when contact with all elements within the CP is lost for a prespecified time; or when a unit or element reports and verifies the CP's destruction. Tactical standing operating procedures (TSOP) designate alternate CPs for main, assault, and rear CPs and establish criteria for their activation.

When necessary, the TAC CP's alternate CP must be able to assume the G3's, G2's, and FSE's critical functions, in that priority. The first choice for a TAC CP alternate normally is wherever the CG and the command group's vehicles are located.

The CG knows the situation, and the command group should be able to pick up the close operation without losing momentum during information transfer. The command group's vehicles also possess the organic communications capability and personnel to perform critical G3, G2, and FSE functions.

Once the new TAC CP is functional, information and operations transfer from the CG to the TAC CP. If the CG is unavailable, the next alternative for an adequate TAC CP is the division cavalry squadron CP.

Designating an alternate CP for the main CP is difficult because of the size and complexity of its functions. The problem becomes less complex when the division identifies which critical functions occur at the alternate CP and which occur at other CPs within the division. However, no other organic division CPs are capable of assuming all the main CP's functions.

After the main CP's destruction, and the verification of its destruction, subordinate division CPs that routinely send liaison elements to the main CP assume the functional responsibility of their liaison personnel and provide assistance. When selecting a unit CP as the alternate, the division determines the effect the choice will have on current division tactical operations.

The number of surviving personnel and equipment from the main CP determines the number of personnel and the amount of organic equipment the aviation brigade CP needs. Engineer, signal operations, ADA, and MI battalions, plus DIVARTY, temporarily assume other main CP functions until the division main CP is once again able to function and assume its duties.

NOTE: Despite a distance issue, some divisions use the division rear CP as the initial alternate CP. Figure 2-3 shows a conceptual allocation of C^2 tasks and functions for alternate CPs.

Divisions also designate an alternate rear CP. Functionally, DISCOM's CP manning and equipment allows it to assume critical functions of the assistant CofS, G 1 (personnel); assistant CofS, G4 (logistics); and division transportation officer (DTO), from the rear CP CSS cell, without impacting the sustainment function. Should the enemy destroy the DISCOM CP also, the MSB may be the next best alternative.

MAIN CP FUNCTION	DESIGNATED ALTERNATE	CRITICAL FUNCTIONS
Command Center	Aviation Brigade	– Allocate resources. – Prioritize resources.
G3 Op/Planning/ A^2C^2	Aviation Brigade	– Plan, synchronize, and monitor close, *deep, and rear* operations. – Plan branches and sequels. – Fight the deep battle.
G2 Op/ACE	MI Battalion	– Integrate all intel operations.
FSE	DIVARTY	– Integrate all fire support operations.
Engineer	Engineer Battalion Staff	– Integrate all mobility and survivability operations.
ADA	ADA Battalion Staff	– Integrate all AD operations.
NBC Element	Division Chemical Company	– Integrate all NBC requirements.
ADSO	Signal Battalion	– Ensure all communications requirements are synchronized.

Figure 2–3. Command and control tasks and functions for alternate CPs

The main CP G3 operations cell assumes the rear functions of terrain management, security, and movement coordination. Selecting an alternate rear CP must not interfere with the capability of CSS elements to continue to logistically sustain current operations.

Designating an alternate CP and transferring functions to that CP require definitive, practiced staff drills to make the operation efficient and effective. Prioritizing the critical functions each alternate

CP performs assists the transfer from one CP to another.

Identifying and rehearsing synchronization and coordination issues in the transfer of CP functions to and from an alternate CP occur routinely. The most critical consideration is to minimize disruption of the division's capability to command and control current tactical operations.

Information Management

The key to effective control is information management. All information the unit's automated and manual systems generate has one overriding purpose—to help the commander make timely decisions during the turmoil and confusion of battle.

The commander's critical information requirements (CCIR) drive information-generation. The information system focuses on getting the right information to the commander or decision maker as quickly as possible. The division should abandon efforts to provide the commander "nice to have" information that does not contribute to a current or anticipated decision.

The commander, not a staff officer, develops CCIR. However, the staff may recommend CCIR to the commander as—

- Priority intelligence requirements (PIR) (how I see the enemy) to determine what the division wants or needs to know about the enemy.
- Friendly forces information requirements (FFIR) (how I see myself) to allow the commander to determine the combat capabilities of his units.
- Essential elements of friendly information (EEFI) to allow the commander to determine how he must protect his unit from the enemy's information-gathering sources.

The chief of staff (CofS) or executive officer (XO) is the unit's information manager. He outlines and monitors the staffs performance and responsibilities in processing information to support the operation and the flow that feeds the system.

Using color codes on charts to depict current status helps the commander quickly assess critical elements and focus staff efforts to "fix" or "continue to fix" the problem. If the commander desires further information, the CP staff can retrieve or pull it from the submitting staff section or major subordinate command (MSC) in the tree mode.

To eliminate confusion, a color code standard should be consistent throughout all command echelons. A commonly used standard color code is—

- GREEN—From 80 percent or greater combat capability remains (full strength).
- AMBER—From 60 to 79 percent combat capability remains (mission-capable with minor deficiencies).
- RED—From 40 to 59 percent combat capability remains (marginally mission-capable with major deficiencies).
- BLACK—Less than 40 percent combat capability remains (NOT mission-capable).

Operations maps should contain only the minimum essential information to allow the commander to see the battlefield. Staff section maps contain more detail to enable analysis of data before the staff provides information to the command center. However, updating an operations map with too much detailed information is time-consuming. It also interferes dramatically with coordination, integration, and synchronization.

Operations noncommissioned officers (NCOs) of each element or section within each CP manage information by maintaining a current operations journal. This is a chronological listing of messages, fragmentary orders (FRAGOs), and warning orders. It is a continuing requirement maintained to reconstruct events, clarify guidance, or validate requirements.

Maneuver Information

Maneuver is the responsibility of the operations officers (G3 or operations and training officer (S3)) at each echelon of command. It is the pivotal system around which all other support systems revolve. All information relating to the maneuver of forces or the coordination, synchronization, and integration of combat and CS elements passes through the G3 or S3 sections.

Distributing maneuver information occurs between the G3 operations elements at the TAC, main, and rear CPs. Command posts receive different parts of the information, although all of it eventually

goes to the G3 at the main CP for analysis and posting.

The division TAC CP receives maneuver information from committed brigade CPs during or, as quickly as possible, after a situation occurs in a "salute" format spot report (SPOTREP) or the more detailed commander's situation report (SITREP). The commander or ADC-O must continuously make timely maneuver decisions. Their need to see the current situation requires expedited transfer of information.

The division TAC CP collates, posts, and analyzes maneuver information. It then turns the data into updated current close operations information which it sends to both the division main CP operations cell and its higher headquarters.

Maneuver information maintained by the G3 operations of the TAC CP and the G3 operations of the main CP should be identical. Command posts usually focus on enemy combat capability two levels down. In the AASLT division, in order to maintain visibility on setting conditions for air assault, it is imperative that enemy combat units be tracked to platoon level.

Intelligence Information

The G2 operations cell at the main CP collates all information relating to intelligence functions. The cell monitors the entire intelligence battlefield by placing elements at the TAC CP and the rear CP.

The intelligence flow follows a clearly defined and disciplined path using established procedures and reports throughout each echelon from company to echelons above corps (EAC). The G2 cell at the TAC CP (for hasty analysis) or the main CP (for detailed analysis) analyzes all information received from the terrain analysis team as well as from subordinate and adjacent units (other than quick fire targeting information).

ADDITIONAL AIR ASSAULT DIVISION KEY PERSONNEL

The key leaders in an air assault are the air assault task force commander (AATFC), the air mission commander (AMC), the air battle captain (ABC), the ground tactical commander (GTC) (Figure 2-4).

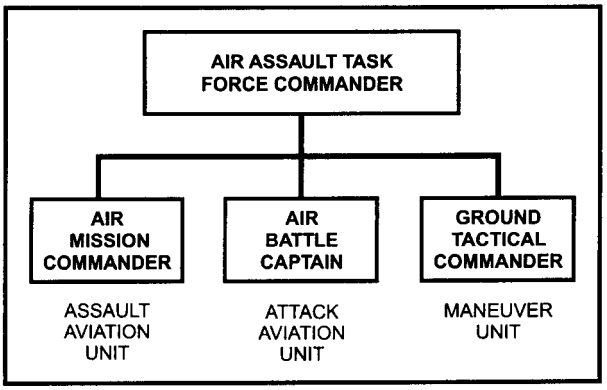


Figure 2–4. Relationship of key personnel in an air assault

Other key leaders are the aviation liaison officers (ALO) and flight leaders.

Air Assault Task Force Commander (AATFC)

For brigade-level air assaults, the AATFC is normally the brigade commander. He locates where he can best command, control, and maintain positive communications with his forces. During an air assault, he is normally in a C^2 helicopter.

Air Mission Commander (AMC)

The AMC commands all aviation elements involved in an air assault, including the attack element. He typically commands the assault aviation unit supporting the operation. During an AASLT operation, the AMC does *not* pilot or copilot a C^2 aircraft. He collocates with the AATFC at the C^2 console and commands air operations throughout execution of the air assault.

Air Battle Captain (ABC)

The ABC is responsible for coordinating, integrating, and controlling all attack aviation and supporting fires (ground and air). He understands the AATFC's fire support plan and places himself where he can maintain positive control of all air and ground fire support assets.

The ABC controls the synchronization of any programmed joint air attack team (JAAT) operation that masses attack helicopter fires, close air support

(CAS) aircraft, indirect fires, and direct-fire systems. Although the AATFC has overall responsibility for conducting the battle, the ABC coordinates fires and communicates with the AATFC. The ABC is usually the commander of the attack element supporting the air assault.

Ground Tactical Commander (GTC)

The GTC is the commander of the largest ground maneuver task force inserted during the air assault. He is usually an AATFC subordinate maneuver commander and flies on one of the first serials into the objective area. He maintains communications with the AATFC during flight.

On the ground, the GTC initially uses the combat aviation net (CAN). At a predetermined time he switches to the AATF command net. During flight he uses the assault aircraft's headset and console. After insertion he uses organic communications assets. The AATF command net becomes the primary command net at the AATFC's designation.

The Relationship Between the Air Mission Commander and the Air Battle Captain

The exact relationship of attack aviation to the AMC during an air assault depends on METT-T. Normally, attack aviation forces work directly for the maneuver commander, fully coequal with the lift aviation battalion. Synchronizing Army aviation in an air assault necessarily alters this relationship. The result is the unusual circumstance of one battalion commander (attack) working for another (assault).

The AMC controls attack helicopter units during an air assault. This command relationship aids navigation, sequencing into the objective, recovering downed aircraft, managing airspace, refueling and rearming, and providing an armed escort.

If the attack element fires in support of a maneuver element already on the ground, the AATFC can temporarily place the attack element, or a portion of it, under the GTC's control. When released, the attack element reverts back to the aviation task force under the AMC's command until the air assault ends.

Aviation Liaison Officers (ALO)

Air assaults require close integration between Army aviation and maneuver units. Air and ground units depend on—

- A permanent liaison system.
- A well-understood aviation command and support relationship.
- A reverse planning system to prioritize efforts.
- A common air mission order format to synchronize troop-leading procedures (TLP).

Continuous and effective liaison is crucial between all combined-arms units participating in combat air assaults. The aviation brigade headquarters provides liaison officers (LOs) to the division (an assistant division aviation officer (ADAO)).

Assault battalions provide liaison teams attached to habitually affiliated maneuver brigades (the brigade aviation element (BAE)). Attack battalions provide liaison with maneuver brigades on a mission basis.

Medium assault aviation brigades provide liaison with DIVARTY or DISCOM on a mission basis. At the brigade level, BAEs provide the maneuver commander the following:

- Capabilities, limitations, and tactical employment of aviation brigade assets.
- Assistance in preparing aviation estimates, plans, orders, and reports.
- Assistance in planning aviation combat, CS, and CSS missions.
- Coordination with airspace users and the division A^2C^2 element for airspace management in the TF sector.
- The operational status of aviation brigade assets and its effects on the supported task force's mission.
- Informing appropriate aviation units of current and possible future operations.
- Continuous communications with units supporting the brigade.

At the brigade level, the assault aviation battalion commander who habitually supports a maneuver brigade normally collocates a TAC CP with that of the brigade AATF. The assault aviation TAC CP

coordinates all facets of aviation support the brigade TF uses, including planning, operations, and logistics.

The assault aviation TAC CP maintains communications with the aviation brigade CP to timely and efficiently effect changes to aviation task organizations. The assault aviation TAC CP also---

- Advises the maneuver brigade S3 air on managing AATF airspace.
- Assists the assault aviation commander in his role as principal advisor to the AATFC on the proper use of aviation assets.
- Controls all aviation units in the AATF during air assaults.

PLANNING TECHNIQUES

The division plans element locates near the main CP and works for the G3. It is the only asset available that allows the division commander to maintain his ability to continually look toward the future and effectively transition from current to future operations and vice versa.

Neither the commander nor any staff officer should divert the plans element from its future planning process to participate in developing plans and orders to support branches to current operations. Warning orders or FRAGOs to support changes to the current operation (branches) are the responsibility of the G3 operations element (not the plans element) at TAC, main, or rear CPs.

The corps and division are always planning. The division conducts continuous mission planning whether committed to the battle or in reserve. Planning processes for both should follow the traditional, formal estimate process which FM 101-5 (D) outlines. The division normally locates in a rear assembly area when conducting noncommitted force planning.

Led by the plans cell, each CP element participates in and supports noncommitted force planning. Key to noncomrnitted planning is time available to conduct the formal, time-consuming, step-by-step, detailed staff estimate planning process. The result is a detailed, thought-out, war-gamed plan to begin the division's tactical operations.

Transition Operations Planning

The plans element primarily focuses on future operations by developing, coordinating, integrating, and synchronizing plans with current operations to effect a smooth transition to another operation, a branch, or a sequel. The objective is to prevent a loss of tactical integrity and momentum. Main CP staff elements, less the plans element, control the current operation.

During combat, the division cannot stop to conduct formal planning for the next operation. This requires transition planning battle drills supported by all primary and supporting staff elements.

Even when not committed, the division plans cell leads the planning effort. Each staff section supports the planning process and also monitors current operations in preparing for combat activities such as reconnaissance, counterreconnaissance, movement, and resupply.

Successful transition from one operation to another involves several key factors:

- Early anticipation by the commander and the assignment of one clearly articulated future operations mission (or sequel).
- Development of a concept of operations that accepts risk with economy of force to allow mass.
- Continuous planning, coordination, integration, and synchronization of future operations requirements with those of current operations.

Parallel Planning

Parallel planning is the act of conceptualizing, developing, and synchronizing a future operation plan (OPLAN) (sequel) with a current operation and its continually changing situations. It replaces the one-third, two-thirds rule and similar fractional divisions of time.

Parallel planning is effective when dealing with reduced planning time and when transitioning from one operation to another. It requires planners to be continually aware of current tactical developments.

Parallel planning emphasizes continuous information-sharing through verbal and written means (warning orders, FRAGOs, reports, and messages) to quickly distribute intelligence, planning guidance, and coordination instructions to subordinate,

AATF	AATFC	AMC	GTC	FORCE ON LZ
Brigade	Brigade commander	Assault aviation battalion commander	Battalion commander	Battalion
Battalion	Battalion commander	Assault aviation company commander	Company commander	Company

Figure 2–5. Air assaults by echelon of command

adjacent, and higher staff elements. Continuous information-sharing allows all units to receive information on the future mission early in the planning process. Units should not wait for a detailed analysis or a single published order to begin parallel planning and to develop orders.

The plans cell has one mission only—to develop and coordinate plans in detail once the corps or JTF commits the division to an operation. Involving higher, lower, and adjacent staff elements early in the planning process allows the entire staff to see both current and future operations and helps identify known or potential problem areas. Identifying conflicts early allows time to fix problem areas without disrupting the current mission.

Air Assault Mission Planning

Planning for AASLT operations requires time—time to plan, time to prepare, and time to brief. Available time dictates how much detail can go into the plan while allowing time to complete orders and supporting plans.

Twenty-four hours represents a minimum-time period for a quality product. From 48 to 72 hours is preferable.

Within time constraints, the AATFC carefully evaluates capabilities and limitations of the total force as he develops a plan that ensures a high probability of success. When time limitations exist, compression of planning steps and/or parallel planning occurs.

The division is the lowest echelon that allocates aviation assets, assigns appropriate missions, and has an ACE to gather required intelligence data and analyze enemy capabilities. Therefore, when the division assigns an AASLT mission, division headquarters begins the planning process.

The division may complete some of the planning tasks itself. When the division performs these tasks, subordinate commanders use their limited time to accomplish other key preparatory tasks. (See also Figure 2-5.)

The battalion, on the other hand, is the lowest level with sufficient personnel to plan, coordinate, and control AASLT operations. When company-size operations occur, the bulk of planning occurs at battalion and higher headquarters.

The higher headquarters is responsible for air assaulting subordinate units below brigade level; for example, brigades insert battalions, and battalions insert companies. (Normally, the responsible higher headquarters allows the subordinate maneuver cornmand to choose LZs which best support the maneuver force's ground tactical plan. However, higher headquarters coordinates the selection of the LZs and assists coordinating flight routes.)

Brigades insert themselves. When multiple brigade operations occur simultaneously, each brigade inserts itself. The division oversees operations.

Parallel planning offers a useful technique in compressed AASLT planning processes. Subordinate units, however, must be cautious so they do not become completely committed to a course of action (COA) or scheme of maneuver until they gain approval from higher headquarters.

An AASLT operation consists of five plans: a ground tactical plan, a landing plan, an air movement plan, a loading plan, and a staging plan. All five plans are important, but as time becomes critical, a unit may not have time to write each plan. Therefore, the war game that the senior planner and commander conduct can be informal (Figure 2-6).

As the higher command refines its scheme of maneuver and fires (usually through informal wargaming procedures), modifications may well affect lower command missions and tasks. Therefore, subordinate units must be flexible enough to incorporate the changes and realize that this situation often occurs as they participate in parallel planning.

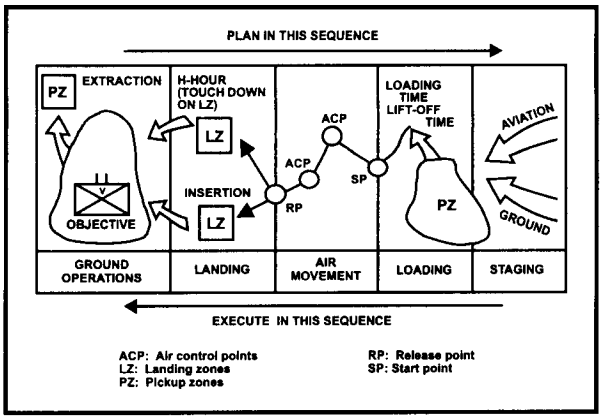


Figure 2–6. Air assault operations: reverse planning sequence

When time becomes short, reliance on the reverse planning process can pay big dividends on focusing and priortizing efforts. There are five pieces in the reverse planning process.

The ground tactical plan is the foundation for a successful air assault. All other plans support this one. It specifies actions in the objective area to accomplish the mission and to set the stage for subsequent operations.

The landing plan enables accomplishment of the ground tactical plan. It sequences elements into the AO. Units must arrive at designated locations and times prepared to execute the ground tactical plan.

The air movement plan supports the ground tactical plan and the landing plan. It specifies the schedule and provides instructions for air movement of troops, equipment, and supplies from PZs to LZs. It also addresses coordinating instructions regarding air routes; air control points (ACPs); aircraft speeds, altitudes, and formations; and the planned use of attack helicopters, including security and link-up locations. The air movement plan reflects detailed coordination with the AMC and the aviation LO, who provide technical and tactical assistance and recommendations.

The loading plan depends on the air movement plan and ensures that troops, equipment, and supplies are loaded on the correct aircraft. A good loading plan incorporates integrity, cross-loading, a bump plan, and "bump" priorities.

The staging plan supports the loading plan. This is critical to all air assaults, especially for CSS assets. It prescribes arrival times of ground units and their equipment at the PZ in the proper order and location for movement.

NOTE: Field Manual 90-4 contains a detailed explanation of how to execute the five AASLT operations plans.

Available time normally does not allow the AATF staff to develop these plans sequentially. Therefore, the AATF simultaneously develops plans to make the best use of available time.

The staff begins to develop the ground tactical plan first because it is the basis for the other plans. As the staff gathers information they begin working the other plans. As the commander approves each plan, the AATF staff makes necessary adjustments to the other plans. Synchronizing all plans occurs during the air mission coordination process.

The AATF staffs issue multiple warning orders as they gain more information, often appending tentative schemes of maneuver. Experience at the combat training centers suggest that making and issuing tentative plans early, even though they may be changed later, is better than issuing a thorough plan too late.

Finally, the commander and staff allocate time for air mission briefs and rehearsals. This becomes particularly important during air assaults because of the complex combined-arms integration inherent in such operations. (See Figure 2-7.)

The Air Mission Brief (AMB)

The AMB is the order briefing for all key participants in an air assault. An air mission coordination meeting is the commander's forum specifically for resolving and synchronizing details of the entire AASLT operation from staging, loading, air movement, and landing plans to ground operations. The results are briefed at the AMB.

The AATFC assumes great risk to the entire complex mission if he discards the AMB. (The AATFC may also give an abbreviated AMB "planeside.")

The AATFC synchronizes an air assault around the air movement table (AMT). The AMT is a matrix depicting the who, what, when, and where of an air assault. It focuses the operation in relation to D-day and H-hour, thus allowing flexibility

EVENT	X-HOUR (DELIBERATE PLANNING PROCESS)	X-HOUR (ABBREVIATED PLANNING PROCESS)
LOs Report to Bde TOC		
Mission Analysis Brief	X+0100	X+0030
Publish Warning Order No. 2	X+0130	X+0100
COA Development Brief	X+0400	N/A
COA Decision Brief	X+0600	X+0200
Publish Brigade Warning Order No. 3	X+0730	X+0300
Publish Brigade OPORD	X+1600	X+0500
Confirmation Briefs	X+1700	X+0530
Commander's Backbrief	X+2400	X+0900
AMC	X+2500	X+1000
AMB	X+3200	X+1500
Synchronization Checks	X+3300	N/A
Brigade Rehearsal	X+4600	X+1600
COMMEX (NLT than -0300)	X+5100	X+1700
Mission Time	X+5400	X+1800

Figure 2–7. Sample allocation of time for a brigade air assault

as those tentative times change. A written AMT constitutes the bare minimum coordination tool that must occur for every air assault.

Fratricide

Fratricide is the employment of friendly weapons and munitions, used with the intent to kill enemy forces or to destroy his equipment or facilities, which results in unforeseen and unintentional death or injury to friendly, neutral, or noncombatant personnel. Fratricide is a type of accident and is a real, grim consequence of war. Its effects, spreading deep within a unit, can be devastating.

Causes of Fratricide

Only one of five things will occur when a soldier fires a weapon; the projectile will—

1. Miss everyone.

2. Hit enemy forces.

3. Hit noncombatants.

4. Hit friendly forces.

5. Hit two or more of the above.

Weapons systems can detect, engage, and destroy targets at maximum range. But weapons-sighting equipment cannot provide high resolution of targets at extended ranges, especially during limited-visibility conditions.

Insufficient resolution of targets precludes definitive, positive target identification as either friend or foe. Consequently, without additional visual aids or fire support coordination measures, the only thing soldiers can do to definitively distinguish targets as friend or foe is to observe subtle signature differences. They must try to interpret the target's activities as being either friendly or enemy actions and act accordingly.

Situation awareness improves a soldier's or a commander's ability to positively identify potential targets. Situational awareness is the real-time, accurate knowledge of the locations of friendly forces, most enemy forces, and neutral and noncombat personnel.

Fratricide Risk Considerations

There are two types of risk: (1) losing men and equipment to attain the mission and (2) choosing a COA that may not be successful or that may succeed but fail to achieve the desired effect. A commander must take such risks with prudence.

Prudent risks emphasize operational fuctions with the proper balance of administrative functions; for example—

- Understanding capabilities and limitations of units and components.
- Understanding the enemy, identifying weaknesses, and creating opportunities to exploit enemy weaknesses.
- Pursuing actions that gain or retain the initiative.
- Planning for a mission or for unit training.
- Training with supporting branches (joint and combined arms).
- Participating, supervising, and observing unit training.

The format in Figure 2-8 parallels the five-paragraph OPORD. The considerations/factors are key to fratricide reduction and are structured where they would likely appear in the OPORD. This is neither a change nor an addition to the OPORD format.

Fratricide Countermeasures

Fratricide countermeasures preserve and conserve the force. Planning for specific fratricide countermeasures begins during COA analysis.

During the war game, commanders identify procedural and positive control measures which can help eliminate or reduce potential fratricidal situations. (See Figure 2-9.) Commanders can derive specific procedural and positive control measures using operational analysis and risk assessment procedures. They must also balance Army operations doctrine with fratricide countermeasures considerations by integrating procedural and positive control measures into training and materiel considerations.

The primary task of fratricide countermeasures is to optimize combat power. They must be consistent with the intentions of the commander of the higher headquarters while reflecting guidance two echelons down.

The degree to which commanders wish to go to implement fratricide countermeasures often depends on time, enemy interference, and an operation's complexity. Other factors commanders may need to consider are—

- The unit's proficiency.
- Materiel advantages.
- The proximity of maneuver units.
- Environmental factors.
- Rules of engagement (ROE).

Fratricide countermeasures are based on—

- Ensuring unity of effort.
- Anticipating events on the battlefield.
- Concentrating combat power against enemy vulnerabilities.
- Designating, sustaining, and shifting the main effort.
- Pressing the fight.
- Moving fast, striking hard, and finishing rapidly.
- Effectively using terrain, weather, deception, and operations security (OPSEC).
- Conserving strength for decisive action.
- Coordinating with combined-arms units and sister services to complement and reinforce the mission.
- Understanding the effects of battle on soldiers, units, and leaders.

However, during the chaos of battle, no matter how well commanders plan fratricide countermeasures, they will confront situations for which they are not prepared. Therefore, all soldiers must remember two things before they tire their weapons:

1. ***If all potential targets are enemy targets,*** **then detect and engage all targets.**
2. ***If there is a possibility that enemy targets and friendly forces are inked together in the targeted area,*** **then detect, verify all targets, and engage enemy targets.**

PARAGRAPH 1: SITUATION

a. **Enemy Forces:**

Equipment and uniform similarities.
Language.
Deception capabilities and past record.
What similarities could lead to fratricide?
Location.

b. **Friendly Forces:**

Similarities or differences in allied forces language, uniform, and equipment (combined operations).
Differences in US services equipment and uniform (joint operations).
What similarities could lead to fratricide?
What differences could prevent fratricide?
Deception plan.
Location of unit and adjacent units (left, right, leading, follow on).
Location of neutrals and/or noncombatants.

c. **Attachments/Detachments:**

Do attached elements know above information?
Do gaining units supply above information to detached elements?

Own Forces:

Status of training (individual, crew, unit) proficiency.
Fatigue (at the time of the operation, sleep plan, and so on).
Acclimatization to area of operations.
Equipment (new, old, and mix; status of NET).
MOPP requirements.

Weather:

Visibility (light data and precipitation).
Hot, cold (effect on weapons, equipment, and soldiers).

Terrain:

Topography and vegetation (for example, urban, mountainous, hilly, rolling, flat, desert, swamp/marsh, prairie/steppe, jungle, dense forest, open woods).
OCOKA.

PARAGRAPH 2: MISSION

Is the mission, with associated tasks and purposes, clearly understood?

PARAGRAPH 3: EXECUTION:

a. **Task Organization:**

Has unit worked under this organization before (familiarity)?
Are SOPs compatible with the task organization (especially with attached units)?

Uniform and Equipment:

Are special markings/signals needed for positive identification (for example, cat's eyes, chemical lights, panels, and so on)?
What special weapons and/or equipment are to be used?
Do they look/sound like enemy weapons and/or equipment?

b. **Concept of Operation:**

1. **Maneuver.** Are main and supporting efforts identified to ensure awareness of greatest fratricide danger?
2. **Fires** (direct and indirect).

Are priorities of fires identified?
Target list(s).
Fire execution matrix/overlay.
Location of denial areas (minefields/FASCAM) and contaminated areas (such as ICM, NBC).
Location of all supporting fires targets identified in OPORD/OPLAN (overlays).
Are aviation and CAS targets clearly identified?
Direct fire plan.
FPF.
Sector limits (check/verify).

Figure 2–8. Fratricide risk factors (continued)

3. ***Engineer.***

Barrier Breaching:

Are friendly minefields, including FASCAM and ICM dud-contaminated areas, known?
Are obstacles, along with approximate time for reduction/breaching, identified?

4. **Tasks to Each Subordinate Unit.** Are friendly forces identified, as appropriate, for each subordinate maneuver element?
5. **Tasks to CS/CSS Units:** Are friendly forces identified to CS/CSS units?
6. **Coordinating Instructions.**

Rehearsal:

Will one be conducted; is it necessary?
Are direct and indirect fires included?
Is a backbrief necessary?

Constraints and Limitations:

Are appropriate control measures clear and in the OPORD/overlay?
Control measures might include all or some of the following: AA, attack position, LD, axis of advance/avenue of approach/direction of attack, PLs, objective(s), movement times, RFL, FSCL, zone of engagement, limits of advance, MSR, coordination points, LP/OP, challenge and password, and so on.
Are these control measures known by everyone who has a need to know?
What is the plan for using control measures to synchronize the battle and prevent fratricide?
Target/vehicle identification drills.
What is the immediate action drill/signal for "Cease Fire"/"I'm Friendly" if element comes under unknown/friendly fire?
Is there a back-up action?
Is guidance included in handling dud munitions (such as ICM and CBUs)?

PARAGRAPH 4: SERVICE SUPPORT

Ensure trains location(s) and identification markings(s) are known by everyone.
Ensure medical/maintenance personnel know routes between trains and units.

PARAGRAPH 5: COMMAND AND SIGNAL

a. **Command.**
Where is the location of the commander and key staff?
What is succession of command?

b. **Signal.**
Do instructions include signals for special and emergency events?
Do instructions include how to identify ourselves to aircraft?
Do instructions include backup for code words and visual signals for all special and emergency events?
Are SOI/CEOI distributed to all units with a need to know (such as higher, lower, left, right, leading, and following units)?

Figure 2–8. Fratricide risk factors

Command and Support Relationships

While preparing for an AASLT operation, the division commander decides the allocation of aviation assets. He normally assigns them in a command or support relationship to the maneuver or support command requiring these resources.

When planning a mission, the division's commanders and staffs follow certain command and support relationship rules of thumb. (See FM 101-5 (D).) In most cases, aviation units establish a command (OPCON or attached) rather than a support (DS or GS) relationship with a maneuver brigade.

The primary factor in determining if aviation is OPCON or attached revolves around the ability of the maneuver headquarters to provide logistic support for its committed aviation units. If the maneuver command cannot render logistic support, the aviation must be OPCON, which is the most common command relationship for Army aviation.

This relationship works well for limited-duration missions, tasks such as air assaults, or when the parent aviation unit can continue to provide logistic support. When an aviation unit is OPCON to a ground maneuver commander, the ground commander may assign its missions and task organization.

Aviation forces normally are not OPCON to a headquarters below brigade except in special circumstances. The maneuver brigade is generally the lowest level with the command and staff expertise and resources to plan, control, and support combined-arms maneuver and aviation operations. In an

	FACTORS	ASSESSED RISK LEVEL		
		LOW X 1	MEDIUM X 2	HIGH X 3
MISSION	UNDERSTAND PLAN			
	— COMMANDER'S INTENT	CLEAR	⟷	FOGGY
	— COMPLEXITY	SIMPLE	⟷	COMPLEX
	— FRIENDLY SITUATION	CLEAR	⟷	UNCLEAR
	— ROE	CLEAR	⟷	UNCLEAR
	BACKBRIEFS	THOROUGH	⟷	HASTY
	CONTROL MEASURES			
	— COMMAND RELATIONSHIPS	ORGANIC	⟷	JOINT/HASTY
	— AUDIO	LOUD/CLEAR	⟷	JAMMED
	— VISUAL	WELL-SEEN	⟷	OBSCURED
	— GRAPHIC	STANDARD	⟷	NOT UNDERSTOOD
	— SOPs	STANDARD	⟷	NOT USED
	— LOs	PROFICIENT	⟷	UNTRAINED
	— LOCATION/NAVIGATION	SURE	⟷	UNSURE
ENEMY	ENEMY SITUATION	KNOWN	⟷	UNKNOWN
	COMBAT VEHICLE RECOGNITION			
	— STATE OF TRAINING	TRAINING	⟷	UNTRAINED
	— VEHICLE APPEARANCE TO US VEHICLES			
	— FRIENDLY UNITS	SIMILAR	⟷	DIFFERENT
	— ENEMY UNITS	DIFFERENT	⟷	SIMILAR
	EXPLOIT ENEMY WEAKNESSES/ NEUTRALIZE STRENGTHS	EFFECTIVE	⟷	INADEQUATE
	CHALLENGE/PASSWORD			
	DISCIPLINE	HIGH USE	⟷	LOW USE
TROOPS	TRAINING	MOS QUALIFICATION	⟷	UNTRAINED
	FITNESS	RESTED/FIT	⟷	TIRED/BATTLE WEARY
	MORALE	HIGH	⟷	LOW
	UNIT PROFICIENCY	TRAINED	⟷	UNTRAINED
	HABITUAL RELATIONSHIPS	YES	⟷	NO
	INSPECTIONS	CONDUCTED	⟷	NOT CONDUCTED
	BUDDY SYSTEM	USED	⟷	NOT USED
	SAFETY DISCIPLINE	HIGH	⟷	LOW
TERRAIN	SEASONAL HAZARDS	GOOD WEATHER	⟷	EXTREME WEATHER
	DETAILED NAVIGATION PLAN	REDUNDANT NAV AIDS	⟷	NO NAV AIDS
	INTERVISIBILITY	GOOD	⟷	POOR
	OBSCURATION	NONE	⟷	EXTREME
	BATTLE TEMPO	SLOW	⟷	FAST
	POSITIVE TARGET ID	100 PERCENT	⟷	0 PERCENT
TIME	PLANNING TIME	ADEQUATE	⟷	INADEQUATE
	FULL TROOP-LEADING PROCEDURES	FULL	⟷	ABBREVIATED
	REHEARSALS	FULL	⟷	NONE
	RECONNAISSANCE	THOROUGH	⟷	NONE
	SLEEP PLANS	GOOD	⟷	POOR
	* OVERALL FRATRICIDE ASSESSMENT	** 37 - 61	57 - 91	87 - 111

*Commander may use numbers as the situation dictates.
**In this example, each rated factor counts as one. These numbers are multiplied by the value assigned to each column (LOW-1, MEDIUM-2, and HIGH-3). By weighing each factor, an overall score can assist in determining the risk.

Figure 2–9. Risk reduction and/or fratricide prevention measures

air assault, attack and assault aviation units are under the OPCON of the AMC.

The attached relationship gives the gaining maneuver commander the same command, control, and logistic support responsibilities, subject to limitations the attachment order imposes, over the aviation unit as he has over organic units. Of particular significance, the gaining commander provides all logistic and administrative support to the aviation unit.

As with the OPCON relationship, the gaining commander assigns missions to the aviation unit and task-organizes the unit. Attachment is rare. Typically, attaching aviation units to ground maneuver commands only occurs when deploying for independent operations and subsequent employment.

The DS relationship allows the gaining commander to assign missions to the aviation commander, but the aviation commander remains under the higher aviation command's command and control. In addition, the aviation commander, not the maneuver or supported commander, task-organizes his aviation element.

OPCON is another relationship used for aviation to support maneuver forces. During OPCON the parent aviation unit provides CSS.

The DS relationship works well for Army aviation CS (assault) and CSS (medium lift) providing support to DIVARTY or DISCOM. It can be thought of as support on a "mission basis.""

The GS relationship is exactly like the DS relationship, except the division assigns priorities of support to subordinate units. General support missions include aerial courier, airborne communications relays, and aerial electronic intercept work.

Other considerations for aviation command and support relationships are that—

- Attack helicopters and air cavalry organizations are maneuver units and usually work under command relationships. Other aviation units receive command or support relationships as appropriate.
- Assault, attack, cavalry, and command aviation units cannot sustain operations or plan extensively at the company or troop level. A company or troop may occasionally receive a separate mission to execute, such as aerial security in an air assault, but such employment is rare and situation-dependent. Generally, employment of the battalion or squadron headquarters occurs for all aviation operations.
- When the AASLT division receives corps or theater aviation, the preference is for them to be under OPCON unless they come with a significant corps support command (COSCOMJ augmentation. The division's aviation brigade possesses a limited capability to sustain itself, let alone other forces.

REHEARSALS

A rehearsal is the process of practicing for an actual performance. A division rehearsal for an impending combat operation ensures synchronization and agility through practice of the plan.

A rehearsal reinforces the scheme of maneuver and the support of CS and CSS units. It helps identify problem areas and necessary contingency actions. It also determines movement reaction times, enhances coordination, and refines the plan.

A rehearsal focuses on actions critical to accomplishing the mission. It ensures the division can, in fact, accomplish the mission given its state of training, the issued orders, and the expected terrain and weather conditions. A unit conducts some type of rehearsal before executing a new OPLAN or mission.

Rehearsals are part of the tactical operation in which the division, or elements of the division, conduct one or more exercises. The force conducts rehearsals according to a plan which approximates specific operations. Rehearsals test the-

- Familiarity of all elements with the plan.
- Timing of detailed operations.
- Combat readiness of participating forces.

The division commander is the driving force in the interaction that clarifies the plan in the minds of his subordinates. He helps focus the staff to create conditions that replicate upcoming operations. The commander emphasizes key events that trigger friendly actions.

The rehearsal is a tool to reinforce understanding of the plan and to help subordinate commanders visualize the commander's intent and what they are

to do when the battle does not go according to plan. In the final analysis, whether the commander, the CofS or XO, or the G3 conducts the rehearsal, its effectiveness is the commander's responsibility.

Rehearsal Planning

Responsibility for preparing rehearsal plans is the same as for preparing the actual OPLAN. Staffs issue rehearsal plans separately, but as close in time to the OPLAN as practicable.

During planning, commanders and staffs consider the number, nature, and scope of rehearsals; the date and time for each; and the area for rehearsal execution. Tactical forces must also consider the difficulty of repairing or replacing equipment damaged or lost during rehearsals.

Factors that influence the number, nature, and scope of division rehearsals are—

- The complexity of the tasks assigned to division elements.
- The time available for rehearsals.
- The forces' state of training.
- The suitability of available rehearsal areas.
- Special or unusual problems the force may face in the actual operation (the solution to which must be given special attention in the rehearsal).
- Intelligence and counterintelligence considerations.

The dates of rehearsals and the time allocated for them must provide for—

- Complete and careful execution of the entire rehearsal.
- Repositioning of troops, equipment, and supplies that conforms to the original tactical plan.
- Rehabilitation or replacement of equipment and supplies and repair or replacement of any damaged or lost vehicles or aircraft.
- Critiques at all levels of command to evaluate the rehearsal exercise, to emphasize lessons learned, and to correct mistakes.
- Time to fix problems.

Factors that influence the selection of rehearsal areas are—

- The suitability of the area for maneuver.
- The similarity and location of the rehearsal area in relation to the actual AO.
- The feasibility of employing live fire in the rehearsal.
- Security.
- The susceptibility to enemy interference.
- Conditions which might adversely affect the force's health.
- Civilian activities that might interfere with the rehearsal.

Rehearsal Techniques

There are generally seven rehearsal techniques available to the division. Each takes a different amount of time and produces differing results. Time available normally dictates the technique.

The division usually conducts a full rehearsal only when not committed to tactical operations and when located in an area that can support a division-level rehearsal. In whatever rehearsal technique the division uses, personnel portraying the enemy should portray him as being highly uncooperative.

The *full rehearsal* is the most effective rehearsal technique, but consumes the most time and resources. It involves every soldier and system taking a direct part in the operation. If possible, the force conducts the full rehearsal under the conditions (weather, time of day, terrain) forecast for the actual operation.

The *key leader rehearsal* takes less time and resources than the full rehearsal. Key leader rehearsals can occur during daytime or nighttime but should be under expected combat conditions. The commander decides the level of leader involvement, which is normally one of the orders groups which the SOP defines.

Terrain model rehearsal takes even less time and fewer resources than the others. It can be day or night, under a tent, or in a building. The terrain model should depict all of the information on the operation overlay. The commander walks each subordinate leader through an interactive verbal execution of the operation.

The *sketch map rehearsal* can be day or night, almost anywhere, with minimum time and resources. Procedures are the same as for the terrain model rehearsal, except a sketch replaces the terrain model.

The *map rehearsal* takes less time and resources than the sketch map rehearsal and can be day or night. The commander uses a tactical map with an operation overlay as he walks his staff and key subordinate leaders through an interactive verbal execution of the operation.

The commander uses the *backbrief rehearsal* to identify flaws or problems. It reveals how subordinates intend to accomplish their missions and allows the commander to clarify his intent early in the tactical estimate procedure.

Staffs scheduled to participate in the tactical operation usually conduct *radio rehearsals*. These frequently take the form of command post exercises (CPXs). When possible, rehearsals exercise all communications facilities and equipment.

Rehearsal Security

Because of the similarity between the rehearsal and the actual OPLAN, units must enforce strict rehearsal security. Commanders and staffs carefully conduct reconnaissance for, selection of and arrangements for locations in which to execute rehearsals.

Deception operations and measures may be necessary to ensure security. Operational security measures can prevent unauthorized observation or communications. Sealing off the rehearsal area with perimeter patrols or a security screen is the most effective way of ensuring physical security. Conducting rehearsals inside buildings or maintenance facilities is also effective.

NOTE: See FM 71-100-2 for details.

CONTINUOUS OPERATIONS

Continuous operations are a combat multiplier when a commander can maintain his unit's effective performance. Fast-paced combat operations continue around the clock and are intense.

Stress and fatigue over time cause both individual soldier and CP performance to deteriorate, especially when there is no opportunity for units to stand down or for soldiers to catch more than a few minutes of sleep. Therefore, every unit must have, and enforce, a sleep plan. Soldiers and leaders must sleep when the opportunity exists, and senior leaders must ensure subordinate leaders get some sleep.

A soldier's ability to quickly or effectively perform necessary tasks significantly degrades after from 36 to 48 hours. Normal sleeping habits or routines are upset and soldiers feel the effects of fatigue and stress.

Soldiers accumulate a sleep debt when performing continuous operations under limited sleep conditions. The only corrective measure is sleep.

Variables such as training, motivation, and interest can reduce the initial effects of sleep loss. However, no amount of training, motivation, or interest will maintain performance. Commanders must recognize the characteristics of sleep loss and understand—

- From 6 to 8 hours of sleep per night indefinitely maintains performance.
- From 4 to 5 hours of sleep per night maintains effective performance for from 5 to 6 days. Soldiers (and leaders) require a combination of 12 hours sleep and rest (about 8 to 10 of which are sleep) after from 36 to 48 hours of acute sleep loss.
- Thinking ability degrades more rapidly than physical strength and endurance.
- Degradation of mental performance comes as early as 18 hours into sustained work.
- Speed and accuracy are trade-offs during sustained operations. Generally, it is better to maintain accuracy and to sacrifice speed. The likelihood of errors, especially errors of omission, increases with sustained combat.
- The decline in performance when continually working without sleep is about 25 percent every 24 hours.

Continuous operations are combat multipliers only if commanders can manage sleep and stress to sustain effective performance. Physical conditioning delays fatigue, builds confidence, and shortens recovery times after sleep deprivation, illness, and injury.

Before the need arises, commanders should identify and support critical skills. A critical skill is one a soldier must be able to perform regardless of fatigue so he or his comrades can survive.

Repetitive training and cross-training help soldiers who perform duties requiring a high degree of mental skill. Over-learning a skill provides greater reliability and more rapid performance. Cross-training permits soldiers to share duties and to cross-check computations.

Training under conditions of continuous and sustained operations allows units—

- To develop sensible SOPs.
- To develop and execute plans that provide at least 4 hours of uninterrupted sleep each day.
- To determine how much additional time the unit will need to execute tasks for each successive period of operations without sleep.
- To determine how much recovery sleep the unit will need to restore normal performance following sustained operations without sleep.

As soldiers become increasingly worn out, leaders must—

- Give only simple directions. Fatigued soldiers have difficulty in understanding complicated directions and are likely to forget some of them.
- Give complete, clear, precise orders. Leaders must leave no room for interpretation. Degraded soldiers have great difficulty in reasoning. They cannot "fill in" anything that has not been said explicitly.
- Repeat orders and directions. Leaders must have degraded soldiers repeat orders given to them or even write them down. Soldiers' memories for new information will be faulty. They are likely to forget orders or parts of orders almost as soon as they are given.
- Double-check themselves and others. Degraded soldiers may not correctly or completely carry out orders. Therefore, it is necessary to constantly double-check execution to ensure compliance with orders as intended. Leaders should also arrange a way to double-check their own activities.

Leaders, on whose decisions mission success and unit survival depend, must get the largest allocation of sleep. (This may seem contrary to military tradition, but it is sound practice.) Commanders must plan and schedule their own sleep. If a single unbroken period of from four to five hours is not available, commanders should take naps. (This is less restorative however.)

Sleep priority goes to soldiers whose jobs require them to perform calculations, make judgments, or evaluate information. Priorities for sleep scheduling are—

- From 2400 to 0600 (best).
- From 1200 to 1800 (next best).
- From 1800 to 2400 (third best).
- From 0600 to 1200 (least desired).

Command and control of continuous combat operations requires the CP to operate effectively over long periods until the unit completes the mission or until it is pulled offline. To provide rest as well as to accomplish the continuous operations requirement, division CPs must establish designated work shills for available personnel.

Command post work cycles must support two 12-hour shifts. Personnel availability is the primary factor influencing the length of a shift.

Scheduling shift changeover of the entire CP at 12-hour intervals is not effective. It allows departure en masse of the last shift and a complete loss of the collective knowledge of the last 12 hours of operation and planning coordination.

Regardless of how thorough the shift briefing is, personnel will forget some information, deem some as unimportant, or will simply not brief all supporting decisions and rationale in the haste to go off shift. Incoming shift personnel may then confront situations about which they have no knowledge. They lose effectiveness in controlling current operations and in planning future operations. Also, the CP loses valuable time in researching answers, and synchronization of operations suffers.

Another disadvantage to the mass shift change is that different cells and elements within TAC, main, and rear CPs have different times within which a shift change is more practical. This is normally a result of specified times that reports are due to higher headquarters or other requirements the mission or tactical situation generates.

The shift change should not affect the tactical operations center's (TOC's) operations. A proven method of scheduling shifts and maintaining continuity of information is to stagger the shift change during the 12-hour shift window that the unit SOP establishes.

The staggered shift change involves scheduling officers, NCOs, and enlisted men on overlapping shifts so each shift element has access to a body of knowledge from four to six hours old. By staggering personnel into the shift, the unit has a constant interface of new and old shift personnel working within the CP.

NOTE: Figure 2-10 provides an example of one shift-wheel technique.

When the CP displaces, it does so without waking or working off-shift personnel. When rest for the off shift is not feasible, commanders must reestablish essential rest periods as soon as possible.

When planning dismounted infantry operations, commanders and staffs must consider the individual soldier's load and its affect on the soldier. The load impacts not only the soldier's endurance, it also affects mission performance. Normally, soldiers air assault without their ruck sacks. Units must implement an effective supply means and instill confidence into the soldiers that the system will work.

NOTE: Field Manual 21-18 and FM 7-8 address a soldier's loads and provide planning factors and techniques for managing them. These manuals also provide time-distance planning factors.

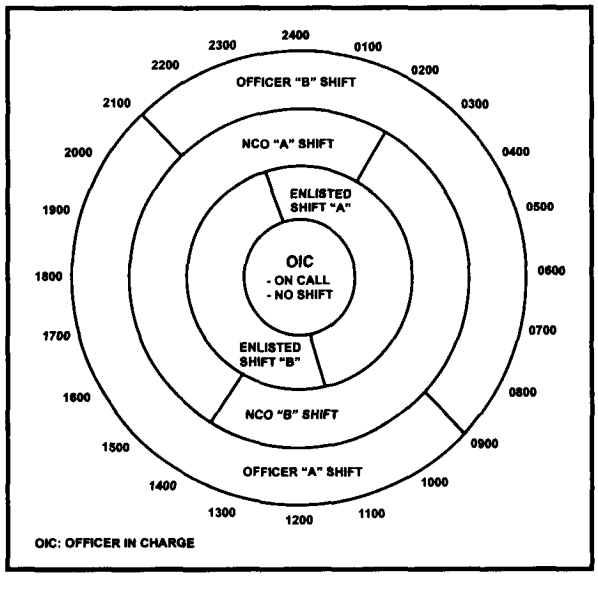


Figure 2–10. Shift wheel technique

LIAISON OPERATIONS

The division conducts liaison operations to aid coordination, synchronization, and parallel planning. Liaison teams have their own transportation and communications links to their headquarters. They may need to have a foreign language capability when working with allies.

Reciprocal liaison involves exchange of liaison teams. When a formation is directly under the command of a headquarters of a different service or nationality, or when units of different nations are adjacent, it requires reciprocal liaison.

The LO represents the commander at the headquarters of another unit to effect coordination and promote cooperation. Selection criteria for LOS includes knowledge of the unit's situation, ability to communicate effectively (language capability, as required), and other special criteria that enhance effective liaison.

NOTE: Field Manual 71-100-2 contains a detailed discussion of LO duties, responsibilities, and techniques.

COMMAND POST DISPLACEMENT

Displacing a CP is a function of training and staff battle drills that each unit must accomplish within its resources and training schedule. A CP does not normally shut down and transfer operations to another CP while it displaces. Each divisional CP must be able to displace during tactical operations while simultaneously conducting its C^2 mission.

Once the moving echelon establishes itself in its new location, it receives (from the other CPs via maneuver control systems (MCS), MSE, and FM radio) only critical information obtained during the move. Once the echelon receives and understands the information, it accepts control. The remaining echelon then moves to the new location, or it may leapfrog to another location past the last jump site.

COMMAND POST SECURITY

Command post security takes many forms. Using MSE or other wire communications as the primary form of communications enhances electronic security (ELSEC). The CP uses FM communications only when displacing or out of range of enemy medium artillery or electronic detection measures.

There may be times when the AASLT division CP deploys forward of the corps/JTF FLOT. When this occurs, there is a higher risk to the CP from enemy forces. Detailed planning must occur to protect the CP.

COMMAND POST FACILITIES

This section describes critical C^2 functions which the TAC, main, and rear CPs need to effectively command and control tactical operations. All descriptions of CP operations derive from the functional CP study. They orient on the performance of critical C^2 functions rather than on specific, rigidly enforced CP configurations.

There is no requirement, nor should there be, to set up CPs in CP configurations only. The terrain, AO, and tactical situation determine the set-up configuration; however, the functions always remain the same.

When committed, the AASLT division's logistic support area should remain near the rear CP. There, the logistic support area, because of its size and lack of mobility, does not represent a security risk for the main CP.

THE TACTICAL COMMAND POST

During combat operations, the division TAC CP—

- Continuously supports the close operation by coordinating and synchronizing immediate tactical requirements of elements committed to division close operations.
- Receives, posts, analyzes, and distributes combat information and tactical intelligence from higher, lower, and adjacent units to support the close operation.
- Synchronizes and expedites fires of all fire support assets supporting the close operation.
- Coordinates and integrates M/S operations (chemical and engineer-obstacles) in support of the close operation.

The TAC CP is a combat command element capable of operating close to combat maneuver elements and subject to engagement by the enemy's direct or indirect fires. Well forward generally means near the lead or main effort brigade's main CP or even farther forward if the situation dictates.

The TAC CP is properly positioned if it can "see the close battlefield." It deploys to be in a position on the battlefield to manage and control the division forces committed or moving to close combat with an enemy force.

The TAC CP—

- Serves as a net control station (NCS) to receive brigade and separate battalion requests for support and combat status reports (STATREPs).
- Makes critical, time-sensitive tactical decisions when required.
- Coordinates close operations requirements for support with the main CP.

The TAC CP is a small, survivable, highly mobile CP. Its survivability is directly related to its small size and its ability to rapidly displace.

Only essential personnel and equipment should beat the TAC CP. When deploying the TAC CP, smaller is always better.

A security element from the AASLT military police GS platoon operating near the division main CP may accompany the initial assault force. This element provides security for the division tactical CP.

The TAC CP does not always deploy forward into the division's AO. But it does deploy when the division commits to combat operations or when it must coordinate, synchronize, and conduct a collateral operation, such as a passage of lines, river crossing, or relief in place.

The TAC CP, when not deployed, normally remains near the main CP in a "warm" mode. When warm, the TAC CP monitors radio nets, MCS

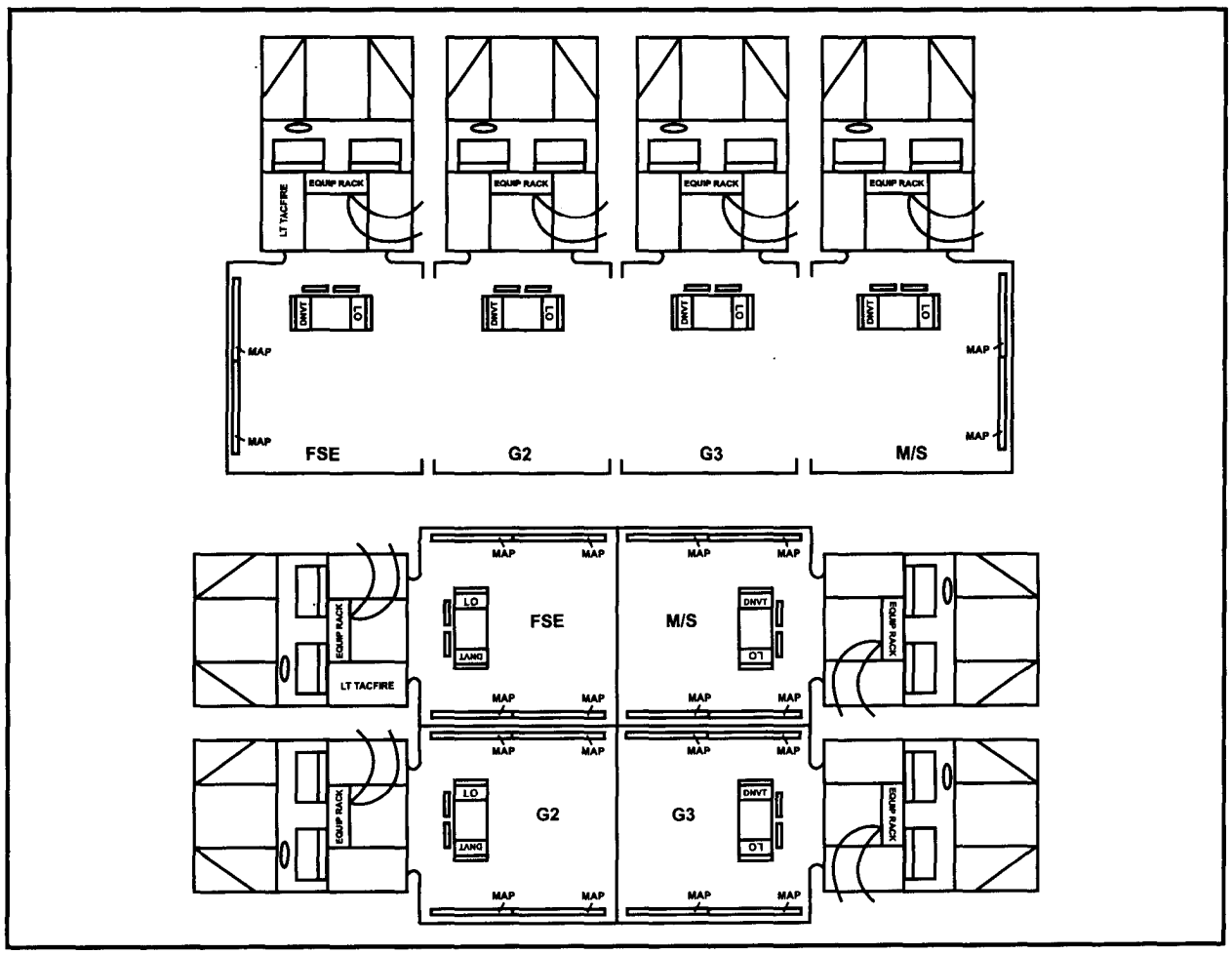


Figure 2–11. Tactical CP deployment, side-by-side and back-to-back

terminals are on, and it maintains and compiles a current data base.

The TAC CP staff posts operational maps and updates them as information changes. Manning is at a minimum. However, nearby personnel maintain a high state of readiness to deploy "hot" when required.

NOTE: Figure 2-11 depicts two basic configurations the TAC CP uses when deployed.

To control and support elements committed to the close operation, the TAC CP normally includes five mutually supporting elements:

1. The ADC-O.

2. The G3 operations.

3. The G2 operations.

4. The FSE.

5. The M/S element.

The high-mobility, multipurpose, wheeled vehicles (HMMWVs) that make up the TAC CP have redundant communications equipment and C^2 accessories to support continuous operations.

THE MAIN COMMAND POST

The main CP is the center of division C^2 organization and structure. It receives input from the TAC CP, rear CP, and higher, lower, and adjacent units. It maintains its ability to see the battlefield and makes plans and decisions that affect committed forces several hours out.

The main CP controls all units not specifically designated as being under the control of the TAC or rear CPs. Its design, manning, and equipping allows it to directly interface with all organic and supporting division elements. It is directly responsible for planning, coordinating, integrating, synchronizing, establishing priorities, and allocating resources to support the division's simultaneous conduct of deep, close, and rear operations.

The main CP commander does not normally make decisions affecting the close operation because of the delay in receiving information. The time required for information to travel from the sender through several information-controlling conduits (headquarters) negates its value. The information does confirm or deny the CP's prediction of enemy intentions and the adequacy of the division's plan against the current threat.

The main CP supports the division battle by responding to requests for support by committed and noncommitted units throughout the division area. It focuses equally on the three operations supporting the division battle. As decisions are made at the TAC CP or rear CP, the main CP rapidly conducts all coordination to support the decision.

The main CP normally functions in a massed configuration (Figure 2-12). Enemy acquisition and targeting capabilities, unit technology, and training determine if the CP must disperse to survive. To function in the dispersed mode, the main CP must have the requisite computer and communications equipment that will allow it to electronically collocate.

The main CP contains three major functional cells: the command cell, the G3 cell, and the G2 cell. All elements within the main CP function under the direct supervision, integration, or coordination of one of these three cells.

THE REAR COMMAND POST

The rear CP focuses on the command and control of all elements within the division's rear area of operations. It also synchronizes rear operations for the division battle.

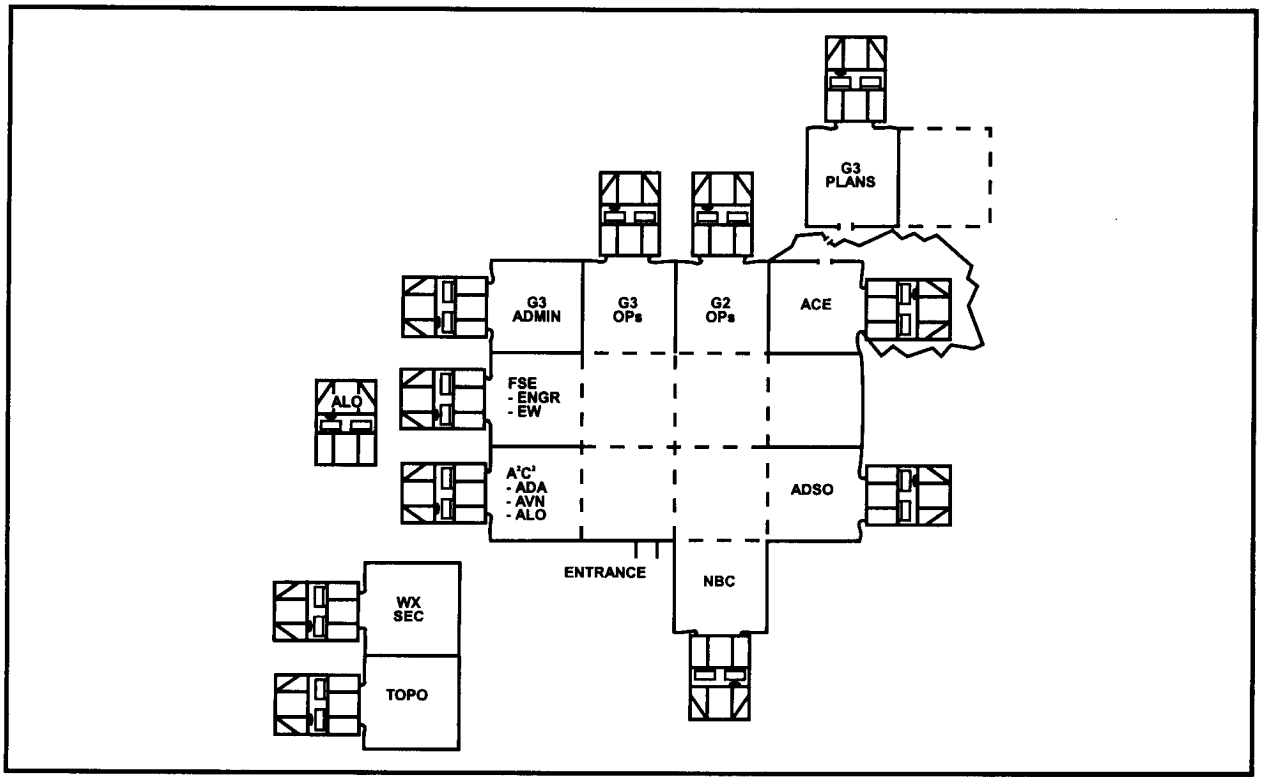


Figure 2–12. The main CP massed configuration

The rear CP contains three cells—headquarters, operations, and CSS. This austere structure provides C^2 for security and terrain management of all elements functioning, residing, or transiting the rear area.

Units should not enter the division rear area before coordinating with the rear CP. The rear CP clarifies and approves routes and locations of bases or base clusters, integrates this information into the security OPLAN, and addresses requirements for sustainment. The rear CP passes this data to the main CP.

The rear CP normally operates from a base within the division rear area. At times it may be near the DISCOM CP for ease of transit and coordination.

The rear CP uses DISCOM organic life support and security. This does not imply that together they constitute the rear CP. On the contrary, they are two separate and distinct CPs with different but critical functions which require extensive cooperation and coordination.

The rear CP's primary concerns are terrain management, security of the rear area, tactical and logistic movement within and through the rear area, and synchronization and direction of sustainment. The DISCOM CP's primary concern is sustainment. The rear CP contains elements from the assistant division commander for support (ADC-S) and the G2, G3, FSE, G1, G4, DTO, assistant division signal officer (ADSO), G5, PM operations, and the G1 support element.

The rear CP's most critical role is to synchronize and integrate rear operations with close and deep operations. Within the rear area, command and control, and especially terrain management, becomes especially critical as brigades air assault from a tactical assembly area (TAA). The air assault would leave only CSS units behind, creating a problem for the rear CP during execution of the air assault. Also, establishing an FOB and maturing it into a TAA for future operations can be a challenge for the rear CP. Rear CP personnel must be proactive in anticipating and controlling such situations.

The rear CP and the DISCOM CP jointly analyze future division plans for impact on current and future rear operations to ensure that logistic and personnel support is available. Alone, the rear CP—

- Deconflicts tactical and nontactical moves where needed and controls them when required.
- Manages rear area terrain.
- Assigns units to bases, designates base clusters when necessary, and appoints commanders for bases and base clusters.
- Coordinates and synchronizes rear security operations.

The G3 designates the tactical combat force (TCF). The rear CP then integrates base defense plans and coordinates the TCF's actions. To prevent potential conflicts with the division's rear operations, the rear CP monitors activity in the brigade's rear, in adjacent division rear areas, and in the corps rear area. In addition, the rear CP monitors close and deep operations. When augmented, it may assume control of the fight if the main and assault CPs can no longer function.

THE ASSAULT COMMAND POST

During contingency operations, assault CP personnel normally provide temporary control until the main CP deploys into an AO. METT-T factors drive the assault CP's specific design, although it is normally austere and consists of selected sections of the main CP. However, its design may vary from deployment to deployment.

The assault CP controls all elements committed to the close operation. It conducts critical division control functions in tactical operations as the division initially deploys into an unsecure, hostile contingency area.

To be effective, the assault CP normally arrives early in the deployment, via USAF airlift, with the initial assaulting brigade, after the airhead is secure, or after a perimeter has been established. It controls the current fight with divisional forces on the ground, synchronizing the flow of follow-on units into the AO and phasing them into the fight to expand and secure the airhead.

The assault CP also begins initial planning for conducting future operations (sequels). It serves as the link between divisional forces on the ground, in the air, at the home station, and with the higher corps or JTF headquarters. It continues this function until the remainder of the division C^2 system closes into

the AO. As the remainder of the TAC CP, the main CP, and the rear CP arrive, they initiate normal functions.

There is no standard design for the assault CP. Each situation or contingency mission may have different requirements. However, the basic assault CP design includes the functions of the G3 operations, G3 plans, G2 operations, the FSE with an ALO, the signal element, and the G4 operations. These critical functions require sufficient personnel to effectively sustain 24-hour operations.

The size of the assault CP normally depends on the number of airframes available. As a general rule, the assault CP should deploy on no more than two cargo (C)- 141 aircraft.

The division TAC CP serves as the base from which to build the assault CP. The assault CP is designed to peel off functions as the main and rear CPs establish operations.

Figure 2-13 is an example of a basic assault CP. It deploys with nine HMMWVs, eight standardized integrated command post system (SICPS) tents, and sufficient personnel to perform critical battle command functions.

The HMMWVs contain all communications and computer equipment hard-mounted into the rear. Personnel use this equipment either in the HMMWV, remoted to the SICPS tent or in combination.

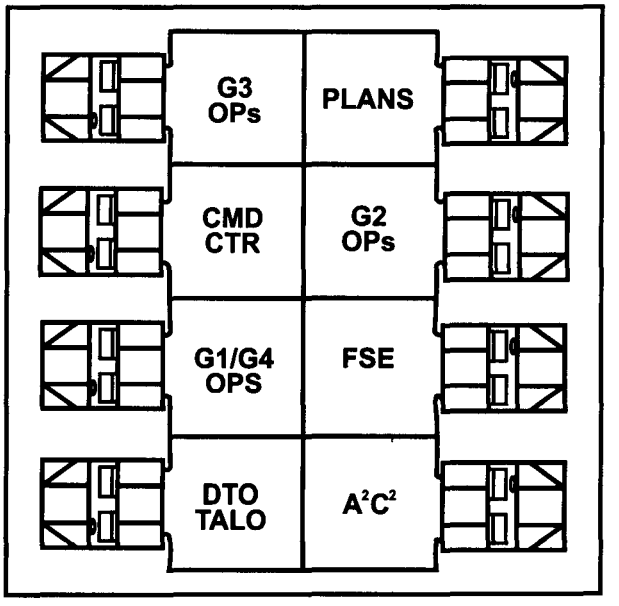


Figure 2–13. An example basic assault CP

Chapter 3

OFFENSIVE OPERATIONS

This chapter provides some examples of how the AASLT division integrates and synchronizes organic and supporting combat, CS, and CSS assets to conduct offensive operations. The AASLT division supports the corps or JTF commander's intent and concept of operations as part of a corps or JTF operation.

Corps, divisions, and brigades use a variety of tactics and techniques to execute offensive operations. The tactics and techniques in this chapter suggest how the AASLT division might conduct operations.

FUNDAMENTALS

Offensive Maneuver

There are five forms of offensive maneuver: envelopment, turning movement, penetration, frontal attack, and infiltration. They orient on the enemy force, not the terrain. The AASLT division conducts all five forms of maneuver.

The commander selects the best form of maneuver for achieving his purpose. Forms of maneuver and forms of offensive operations complement one another.

An *envelopment* causes the enemy to simultaneously fight in two or more directions to meet converging attacks. It avoids the enemy's main defensive strength by attacking from his flanks or, preferably, his rear.

The AASLT division's cross-FLOT operations may be thought of as a "vertical" envelopment. Air assaults and raids over the hostile front help secure and attack objectives in the enemy's rear, cutting his LOC and escape routes.

Supporting attacks, by brigades not air assaulting or by other corps forces, fix the enemy in position as the envelopment proceeds. The division may assist in a corps double envelopment to pocket an enemy force. At least one axis must be a ground attack because an aerial double envelopment would not necessarily disrupt the coherence of an enemy's defensive scheme.

The AASLT division cannot conduct an aerial double envelopment without substantial assault and medium assault reinforcements from the corps or JTF. Against a weakened foe, one brigade might air assault while another infiltrates overland, but this would bean exception.

The *turning movement* goes deep to secure vital areas far in the opponent's rear to cause him to turn and fight or face destruction. The division participates in a turning movement as part of a larger force. If combined with a strong penetration attempt at the FLOT, a turning movement would compel the enemy to fight in two directions at once.

Turning movements generally involve entire corps. The AASLT division could execute such a maneuver by seizing an FOB and then rapidly sending in the division's remaining brigades in sequence over the next 48 hours to expand the threat to the enemy's rear.

In the *penetration*, the AASLT division attacks through the enemy's principal defensive position to divide the enemy force and allow it to be defeated in detail. Once a penetration occurs, the division exploits it out to its maximum range of operations.

The AASLT division can contribute to a corps penetration in two ways. It can mass organic aviation fires and provide flexible task forces to rapidly exploit the gap created during the penetration.

Commanders use penetration when enemy flanks are not assailable. To penetrate a dug-in enemy, the AASLT division could commit one brigade to a dismounted deliberate attack to rupture the enemy line at a weak spot.

As soon as the breach occurs, the second brigade, or preferably an OPCON armored brigade, would push through on the ground. Simultaneously, the other brigade might air assault deep to complete the collapse of enemy defenses—a process aided by deep attack aviation raids.

When employing an AASLT force, a penetration represents a less desirable form of maneuver than an envelopment. A penetration commits soldiers and units trained and outfitted for cross-FLOT

operations into potentially costly front-line engagements better conducted by mechanized forces. The same lightness that allows AASLT formations to go deep and destroy enemy rear echelon elements proves a liability in close combat against fortified positions.

Forcing a rupture to break the enemy at the front and to spring loose a ground convoy to open a main supply route (MSR) to the airhead certainly argues for OPCON of an armored or mechanized brigade. This especially applies if the corps wants the AASLT division to make a doctrinal ground penetration.

The *frontal attack* engages the enemy in more or less equal strength along the LC. The division frontal attack is the least desirable form of maneuver. It serves as a useful supporting effort if begun simultaneously with a deep air assault. Unlike an actual penetration, an AASLT brigade can mount a credible frontal attack to fix opposing forces along the FLOT.

Infiltration is the covert movement of all or part of the attacking force through enemy lines to an objective in their rear. Small groups or individuals move by stealth through enemy defensive belts over a period of time and normally under cover of darkness. They then assemble in predesignated spots behind the enemy's front lines. Infiltrations—

- Put surveillance teams and pathfinders in place.
- Secure possible LZs and FARPs.
- Raid enemy AD sites to open air corridors.
- Position aviation-delivered artillery batteries.
- Seize flight landing strips to create "instant" FOBs.
- Secure choke points along future MSRs.

The AASLT division as a whole does not infiltrate. Infiltrations in the AASLT division work best as supporting attacks timed to coincide with simultaneous cross-FLOT operations.

Tactical Offense

The four general forms of the tactical offense are movement to contact, attack, exploitation, and pursuit. While it is convenient to talk of them as different forms, in reality they may flow readily from one to the other.

Different forms of attack simultaneously occur throughout the depth of the battlefield. An attack may lead to exploitation, and exploitation can lead to pursuit. But there are often occasions when a deliberate attack can either follow a pursuit or lead directly to pursuit.

The ebb and flow of battle opens many avenues for attack. Victory normally goes to the bold and eludes commanders who can only see parts of the combat instead of the whole.

The primary focus of division offensive deep operations is to interdict by delaying, disrupting, or diverting enemy division reserves (battalion- or regimental-size counterattack forces). It then shifts to enemy units defending in depth.

The AASLT division effectively conducts cross-FLOT deep operations. When the AASLT division conducts deep operations it frequently receives corps or JTF augmentation of combat, CS, and/or CSS assets.

The following paragraphs portray the AASLT division conducting an air assault and deliberate attack. See Chapter 4 for an expanded discussion.

Offensive Framework

In the offense, all types of Army divisions simultaneously perform three operations in depth—deep, close, and rear. Deep operations focus on attacking key enemy assets or centers of gravity. Close operations, featuring main and supporting attacks, close with and destroy the enemy and/or secure terrain. Rear operations sustain offensive momentum and ensure freedom of action.

Synchronizing these three types of operations creates high-tempo operations that present the enemy with one continuous operation. To best mesh these operations, the AASLT division should play key deep, close, or rear operations roles, based on its inherent capabilities and limitations, in the corps or JTF framework. It then organizes its own offensive battlefield to best support the higher units' maneuver.

The Division in a Corps Offensive

As the corps or JTF commander marshals forces for battle, he considers how best to employ the AASLT division. In a corps or JTF offensive, an AASLT division can effectively conduct corps deep operations.

The division may attack targets well behind enemy lines. When the corps or JTF does not plan a ground linkup, the preferred method is a raid. An air assault to seize a choke point, create a blocking position, or engage and destroy enemy reserves offer chances for the corps or JTF commander to extend the battlefield to operational depth.

Placing an FOB in the opponent's rear echelon, and subsequently conducting offensive operations from this location, confronts the foe with a series of raids and air assaults throughout the expanse of his terrain. Doing so endangers the foe's MSRs and movement of reinforcements.

In corps close operations, the AASLT division conducts either main or supporting attacks at a given time. Because of lift constraints imposed by the numbers of organic aircraft, the division can only commit a three-battalion maneuver brigade and a three-battalion attack aviation effort during a 24-hour period.

This constraint usually suffices for a corps supporting attack and, if aimed at a decisive spot in space and time, could well serve as the corps' main attack. If employed as the main attack, the corps or JTF should augment the AASLT division with additional assault, medium assault, and attack aviation to increase the amount of force projected cross-FLOT.

In rear operations, the AASLT division dominates large areas with highly responsive AATFs and attack aviation forces. The division offers the corps or JTF commander an organization well suited for search and attack operations against enemy unconventional elements and local insurgents. When he elects to employ the division in rear operations, the corps or JTF commander needs to carefully weigh whether he can afford to commit such a powerful entity to the rear area.

Because of its large aviation complement, the AASLT division can reconnoiter and secure large areas. It might screen the corps flank, perform offensive covering force missions, or carry out large-scale deceptions to conceal other corps operations and to keep the enemy at bay. The division conducts raids and air assaults to carry out these tasks, but it also employs its sizable infantry strength to secure critical sites in the corps or JTF rear.

If used as the corps reserve, the AASLT division offers the corps or JTF commander maximum flexibility. It can join the battle at great range and high speed, with no terrain limitations. However, adverse weather limits these advantages and severely restricts AASLT division activities.

The commander needs to avoid sending the AASLT division into action piecemeal. The temptation may arise to split out attack aviation, air cavalry, assault and medium assault aircraft, and AATFs on a variety of supporting missions throughout the deep, close, and rear battlefield. Doing so would dissipate a force that fights best as a concentrated force. The sum of the whole is greater than the sum of its parts. The corps or JTF must consider the time required to reorganize, assemble, and recreate the division's AATFs to permit maximum effort cross-FLOT raids and air assaults.

The Air Assault Division Offensive

While METT-T assessments determine the exact apportionment of forces for deep, close, and rear operations, the AASLT division displays some consistent patterns in organizing for combat. The ability to air assault one combined-arms brigade equivalent every 24 hours affects the allocation of combat power.

The aviation brigade plays a major role in deep operations, with DIVARTY working closely to provide responsive fire support, especially SEAD. Combined-arms forces up to brigade strength may raid and attack into the deep zone. Deep operations set the conditions for immediate and violent transition into close operations in the same geographical area.

Before the division's deep air assault, the division FSE conducts targeting-cell meetings to coordinate the destruction of enemy assets that could influence the division's operation. The division commander issues his guidance and establishes the amount of risk he is willing to accept.

The targeting cell then establishes the targets for attack. When the commander issues his guidance,

the division battle staff and appropriate supporting arms (the FSE, G2, aviation brigade, and ALO) select and nominate targets for attack by both Army and joint assets.

Commander's guidance, METT-T factors, and enemy capabilities determine the conditions that must be set before the deep air assault. There are certain enemy assets the targeting cells usually address, including—

- Enemy ADA systems (radar guided that can influence the division's ingress and egress air routes into the objective).
- Fire support assets (rocket and tube artillery that can range, mass, and deliver large observed volumes of fire on the objective).
- Enemy armored or mobile reserves that can reach the objective within an established time limit of troops landing on the objective.

The division determines whether targets are selected for destruction, neutralization, or suppression. The division uses all available fire support assets, especially organic attack helicopters and joint assets, to deliver precision strikes on targets. Organic and reinforcing artillery use multiple-launch rocket systems (MLRS) and Army tactical missile systems (ATACMS) in conjunction with electronic warfare to defeat targets.

METT-T factors determine the amount of time the division needs to conduct condition-setting, which begins from 48 to 72 hours before conducting the deep air assault. The division attacks targets and collects battle damage assessments (BDA) to determine how well the conditions are set.

If conditions are properly set by the established time limit, the force conducts the deep air assault. If a commander feels that conditions are not set according to his guidance, he must decide whether to extend the condition-setting process or to select an alternate COA.

Maneuver brigades normally conduct close operations for the AASLT division. One brigade delivers the main attack, which is almost always a division-controlled, brigade-scaled, cross-FLOT air assault. Another brigade conducts a supporting attack, using either limited aviation means or, perhaps, ground infiltration. Under certain circumstances in the offense, attack aviation might make the main attack or raid in a supporting effort, but they prefer to fight deep.

Since rear operations must keep vulnerable aviation assembly areas, CPs, and logistic sites free from threats, the division may devote up to a brigade for this role. Usually, a battalion TF, often augmented from the command aviation battalion for lift and the cavalry squadron for aerial firepower, carries out divisional rear operations when resources are particularly constrained. An assault battalion could be given an on-order mission to assist in this operation.

The AASLT division designates up to one brigade as a reserve and places it in a PZ posture for commitment as required. If the rear threat is enough to require the division to commit a brigade, and the division has already committed the other two maneuver brigades to close operations, the division may accept the risk of having no reserve or only a small one (perhaps an understrength battalion TF).

Under an optimum situation, the AASLT division operates from a corps or JTF reserve assembly area until committed to an assigned zone. The division does not occupy ground at the LC, or if it does, it only holds a narrow frontage to facilitate a ground attack to link up with the eventual airhead the division will form. Division attack aviation and DIVARTY fight deep to prepare conditions for the main air assault.

One brigade may air assault cross-FLOT to a FOB while the aviation brigade expands outward from the FOB to erect an outer ring. Meanwhile, another brigade secures vulnerable rear areas. The air cavalry screens as far forward as possible to identify alerted hostile reserves. Finally, a third AASLT brigade waits in PZ posture ready to stage forward and launch follow-on deep operations within the next 24 hours (Figure 3-1).

The AASLT division may employ two brigades forward in separate FOBs. When they do this in order to provide an outer ring for both, they will need attack helicopter battalion augmentation. The division's aviation brigade may not always have the outer ring mission. If attack helicopter battalions are placed OPCON to each forward AASLT brigade, this attack helicopter battalion augmentation's importance increases.

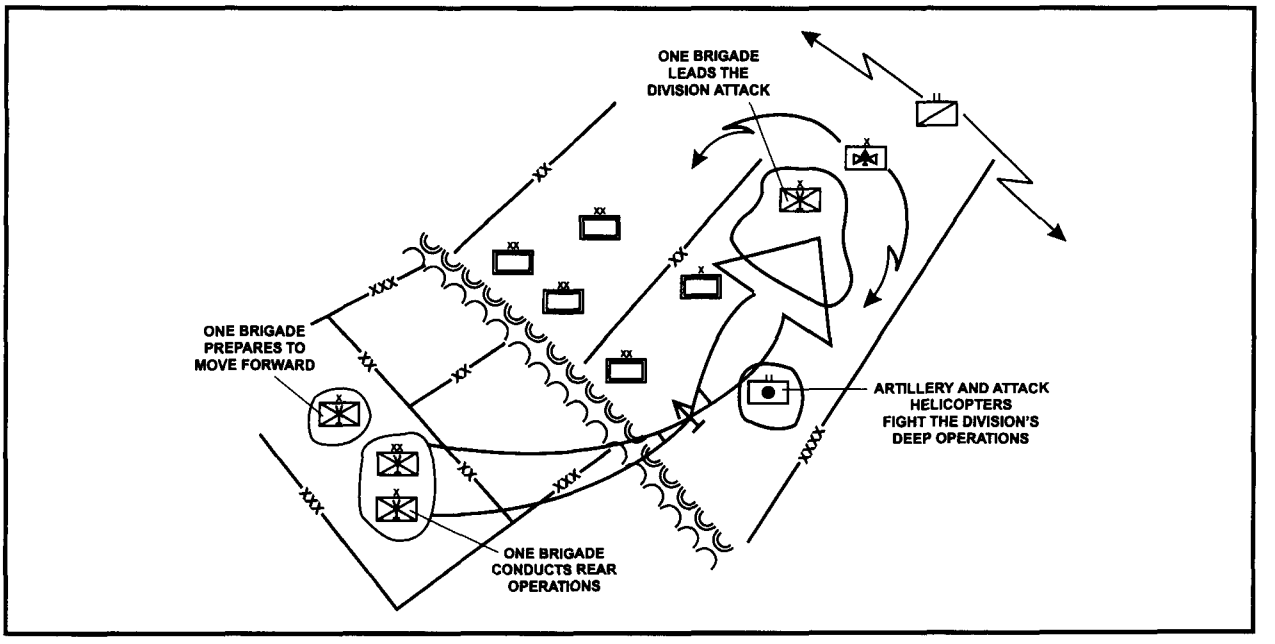


Figure 3–1. Air assault division employment

THE DELIBERATE ATTACK

The AASLT division normally conducts ground offensive operations in restricted terrain. It conducts a deliberate attack as part of a corps operation to seize key terrain and/or destroy enemy forces. It attacks with surprise and violence to destroy the enemy's center of gravity.

A deliberate attack endeavors to overcome strong enemy forces in established positions. Characteristically, deliberate attacks rely on thorough planning and reconnaissance, massive fire support, and large concentrations of maneuver combat power. All of these are designed to break the enemy at the FLOT and setup a penetration or envelopment.

Casualties may be high when friendly units fight through. Therefore, Army armored divisions attempt to maintain momentum by movements to contact and hasty attacks that transition directly to pursuit.

The AASLT division prefers the deliberate attack to the hasty attack. The division's daily cross-FLOT operations reflect all of the traits of a deliberate attack, except one. The AASLT division does not concentrate especially large maneuver forces to punch through at the FLOT. Instead it overflys it to gain positional leverage in the enemy rear. This maneuver avoids the many losses normally associated with trying to break through a dug-in, opposing army.

The AASLT division normally moves by deliberate aerial cross-FLOT bounds. Its deliberate-attack cycle (battle rhythm) permits H-hour about 48 hours after mission receipt.

The following example shows just one way the AASLT division maybe employed. METT-T factors always guide the final decision.

The example shows the corps conducting a successful defense and preparing to transition to the offense. The corps commander estimates a widely dispersed enemy at from 40 to 60 percent strength.

Rugged terrain is immediately to the corps' front, causing difficulty for maneuvering heavy units. The outer ring is a deep operation for the division and is controlled by the main CP.

An extensive corps intelligence preparation of the battlefield (IPB) determines the feasibility of using the AASLT division. During the IPB process, the staff locates enemy forces, analyzes terrain, and conducts a risk assessment.

The corps provides IPB products to the AASLT division during the plans development process. The corps directs the AASLT division to conduct AASLT operations over the rugged terrain.

The corps commander's concept for attack is to use AASLT infantry in a turning movement (Figure 3-2). This would force the enemy to fight in two directions. The AASLT division would seize key choke points (objectives FOX and WOLF) and the river crossing site (objective DOG).

The corps would penetrate enemy defenses with in-place defending mechanized divisions, then attack with the corps reserve (an armored division) to seize objective SNAKE. The AASLT division would continue to hold and expand the objective over a 48-hour period.

Following the armored division attack, the AASLT division conducts consolidation and reorganization operations. It then prepares to conduct follow-on AASLT operations to assist the corps' offensive operation. Or, if directed, it conducts operations to secure corps MSRs from the line of departure (LD) or LC to objective DOG.

This operation is a five-phase corps operation. In phase one, in-place divisions continue to defend, conduct aggressive patrolling, and perform counterreconnaissance operations. The AASLT division moves to PZs in preparation for the attack. One brigade's mission initially is the division reserve.

In phase two, the two brigades air assault cross-FLOT to secure objectives FOX and WOLF (Figure 3-3). The third brigade is the division reserve and continues to prepare for commitment to secure objective DOG as the division continues to support the operation and expand the objective area.

In phase three, in-place divisions attack to penetrate the forward edge of the battle area (FEBA) and create a gap to pass the lead armored division for the attack on the corps objective (Figure 3-4). Simultaneously, the first two AASLT brigades (now dismounted infantry) attack to secure dominant terrain and choke points at objectives FOX and WOLF while the division's attack helicopters conduct a supporting attack deeper into the enemy's rear area.

In phase four, the armored division attacks through the gap created in the FEBA by the in-place divisions, conducts link-up, and passes through choke points secured by the infantry (Figure 3-5). As the armored division reaches phase line (PL) BLUE, the AASLT division continues to support the operation at objectives FOX and WOLF, seizes the river crossing site at objective DOG, and prepares to pass the armored division through the river crossing passage point.

In phase five, the armored division conducts a link-up operation with the AASLT division, conducts the river crossing, then attacks to seize the corps objective (Figure 3-6). The corps may tell the

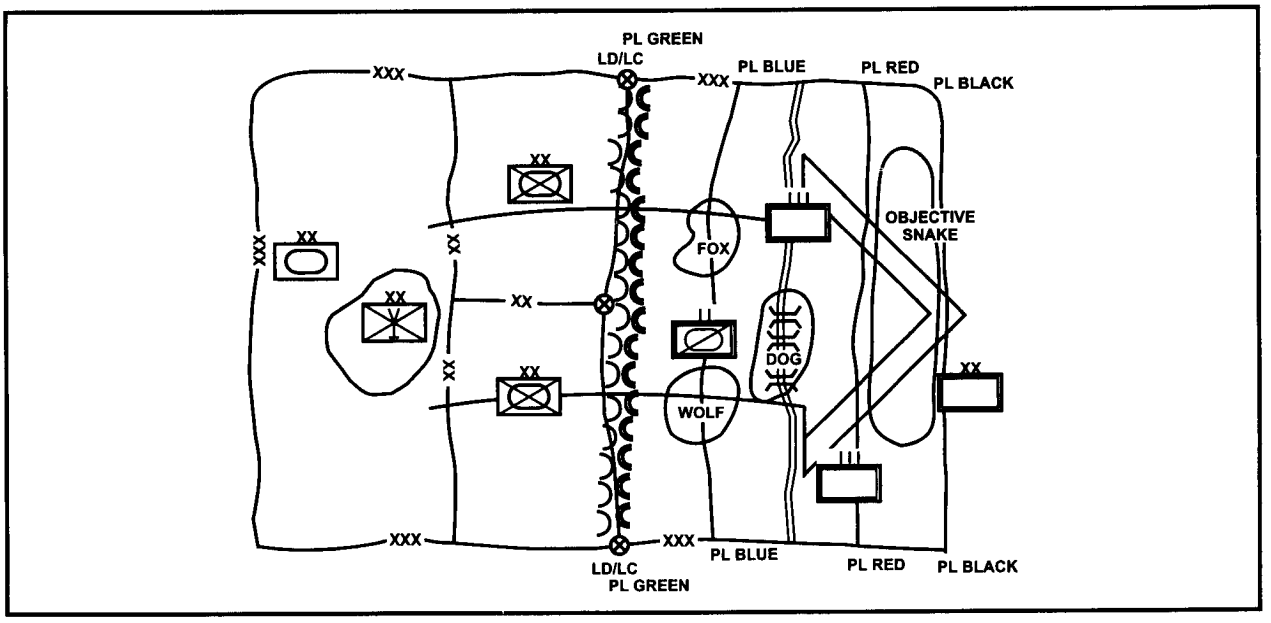


Figure 3–2. The corps concept of operations: the deliberate attack, phase one

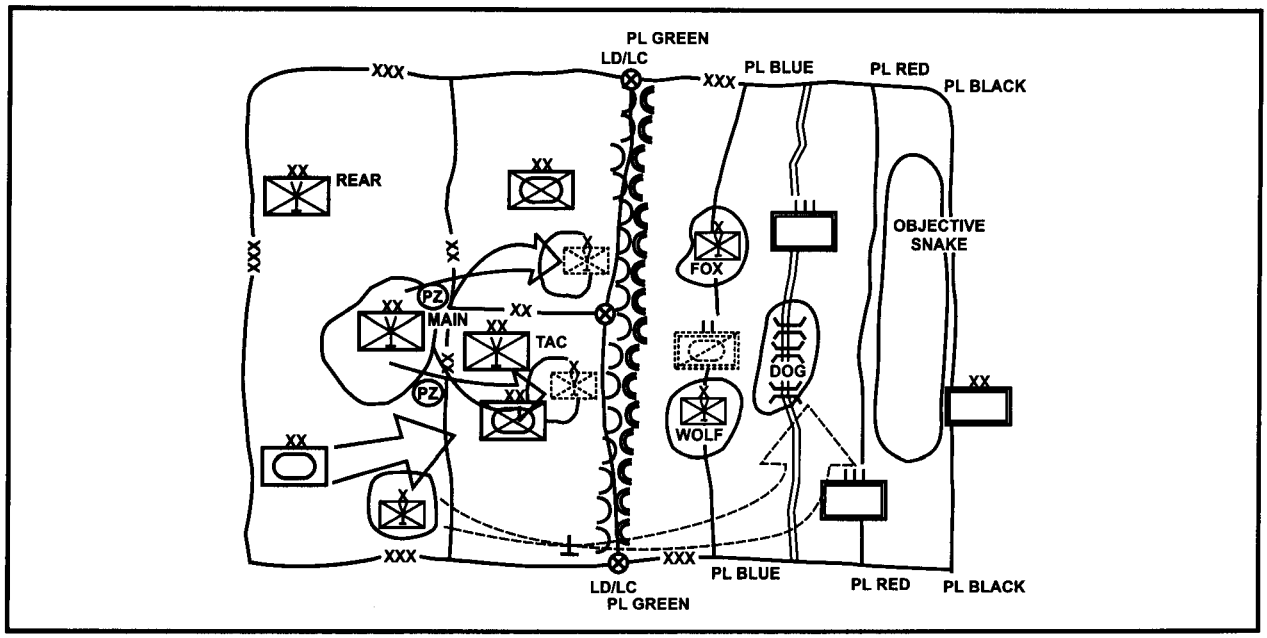


Figure 3–3. The corps concept of operations: the deliberate attack, phase two

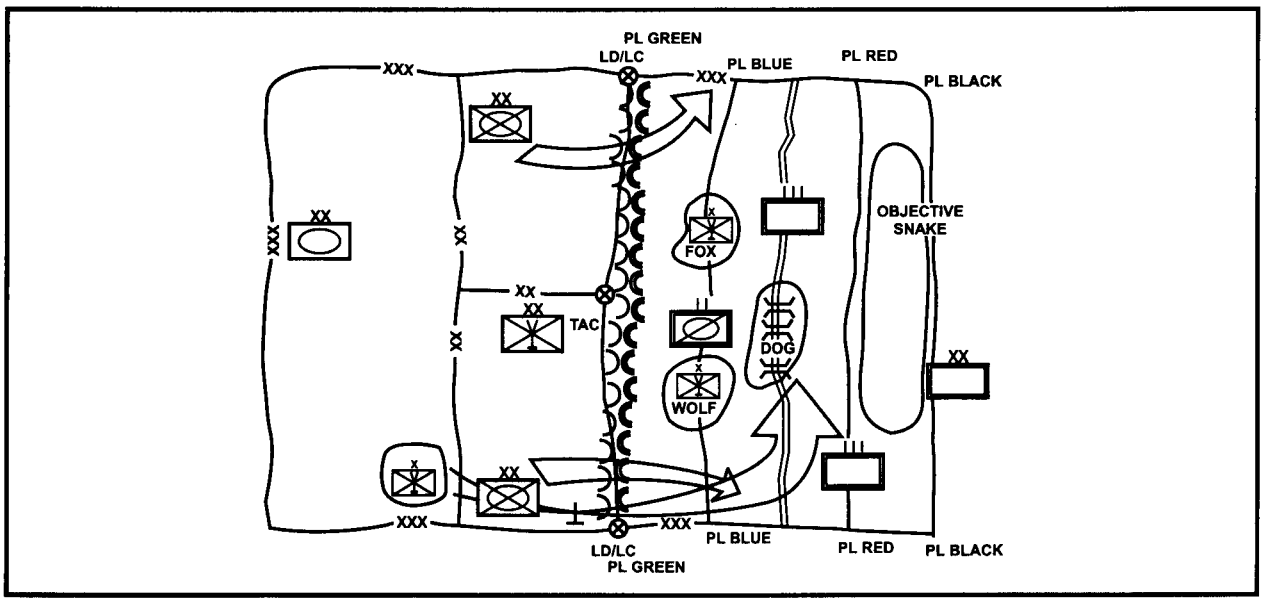


Figure 3–4. The corps concept of operations: the deliberate attack, phase three

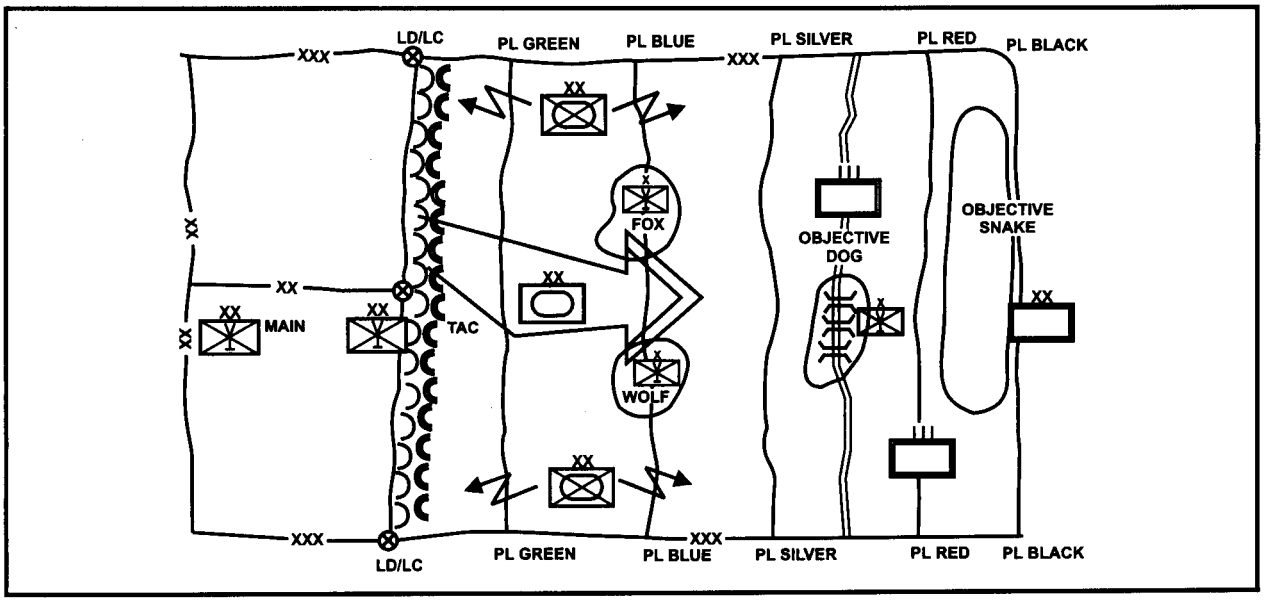


Figure 3–5. The corps concept of operations: the deliberate attack, phase four

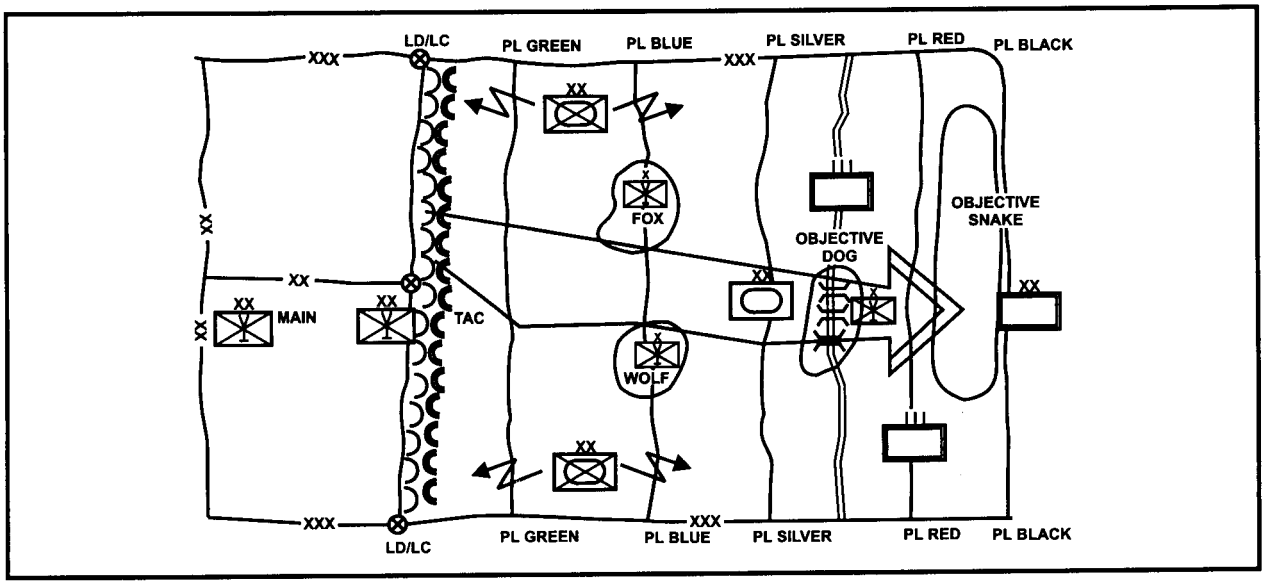


Figure 3–6. The corps concept of operations: the deliberate attack, phase five

AASLT division to conduct follow-and-support operations, to secure LOC from the FEBA to the corps objective, or to assist in an exploitation operation.

MANEUVER

The AASLT division commander and staff receive the corps commander's concept. During the decision-making process, they determine that one brigade each is needed to seize objectives WOLF, FOX, and DOG.

The commander's concept is to simultaneously air assault two brigades to seize choke points (objectives FOX and WOLF) and to air assault the third brigade to seize crossing sites at objective DOG within 24 hours.

To conduct this operation according to the division commander's concept, the division must request and receive substantial aviation augmentation from the corps. The commander task-organizes his assets based on his concept and mission requirements (Figure 3-7). Initially, seizing objective WOLF is the division's main effort.

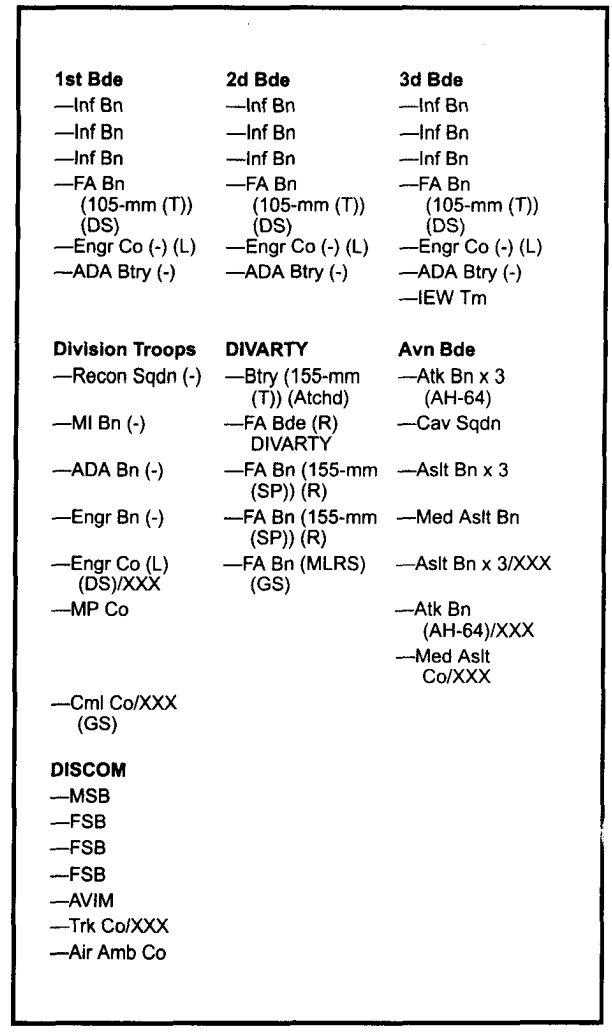


Figure 3–7. Division task organization: the deliberate attack

Deep Operations

The AASLT division is part of the overall corps attack. The corps coordinates its deep operations with the AASLT division to synchronize the AASLT operation into the overall corps plan. It synchronizes the operation through detailed planning and centralized execution of corps attack assets beyond PL GREEN.

The corps directs its efforts toward shaping the battlefield to ensure the AASLT unit does not lose the element of surprise. It also wants to ensure that superior forces do not attack the AASLT brigades after their insertion. Therefore, the corps uses other assets, such as SOFs, to disrupt, delay, deceive, and confuse the enemy. When the AASLT division begins its air assault, the corps may portray activity or possible threats at other portions of the battlefield to divert the enemy's attention.

Close Operations

The AASLT division commander's concept of operations supports the corps commander's concept. Success depends on the division's ability to seize and hold its objectives until the armored force conducts the link-up operation and continues across the river to the corps objective.

The AASLT division commander knows the operation depends on his brigades and the defending heavy divisions achieving surprise and a coordinated attack. The commander's concept calls for a five-phase operation linked to the phases the corps concept presents.

In phase one, the AASLT division, with its reinforcing and augmenting elements, moves to the PZs, conducts reconnaissance, and begins preparation for combat activities (Figure 3-8). It coordinates with corps and defending divisions to position artillery and support units and to identify airspace

control measures and passage points (PPs) through in-place divisions on land and in the air. Support units move to base clusters near the PZs. While the division moves into the PZs, the staff continues to coordinate air corridors to support the air assault.

The AASLT division coordinates with the defending divisions for passage and SEAD support. They also exchange other essential information (fire support measures, ADA coverage, and engineer support) with the corps and the defending divisions to support the air assault and subsequent attacks.

In phase two, the first and second brigades conduct air assault through in-place defending divisions and through enemy areas to the LZs (Figure 3-9). As the brigades assemble for the air assault and attack, they do final coordination to adjust boundaries.

Brigade rear boundaries move closer to the objective, thus establishing brigade boundaries around each objective. This meets the corps commander's guidance and provides the defending divisions room to maneuver as they transition to the attack. This maneuver room is necessary to create the penetration.

In phase three, the assault on objectives FOX and WOLF begins and the heavy divisions attack simultaneously to penetrate and create the gap in the FEBA (Figure 3-10).

During phase four, the brigades consolidate on their objectives, linking up with and passing the corps armored division. The AASLT division has coordinated link-up procedures with the armored division before the attack. The brigade gives battalions the tasks of establishing link-up points at predetermined locations.

In phase five, the third brigade conducts the air assault to seize objective DOG while the lead unit of the attacking armored force simultaneously crosses PL BLUE. Once the brigade secures objective DOG and the crossing sites, it establishes link-up points to pass the armored division. After passing the division, it prepares for the next mission. The AASLT division and the armored division coordinated link-up points and procedures before the attack.

Rear Operations

The primary role of division rear and CSS elements is to coordinate logistic operations and support for maneuver brigades. The rear CP and the defending mechanized divisions coordinate terrain management in addition to controlling traffic and the movement of displaced persons. The division's rear CP is responsible for coordinating rear area security.

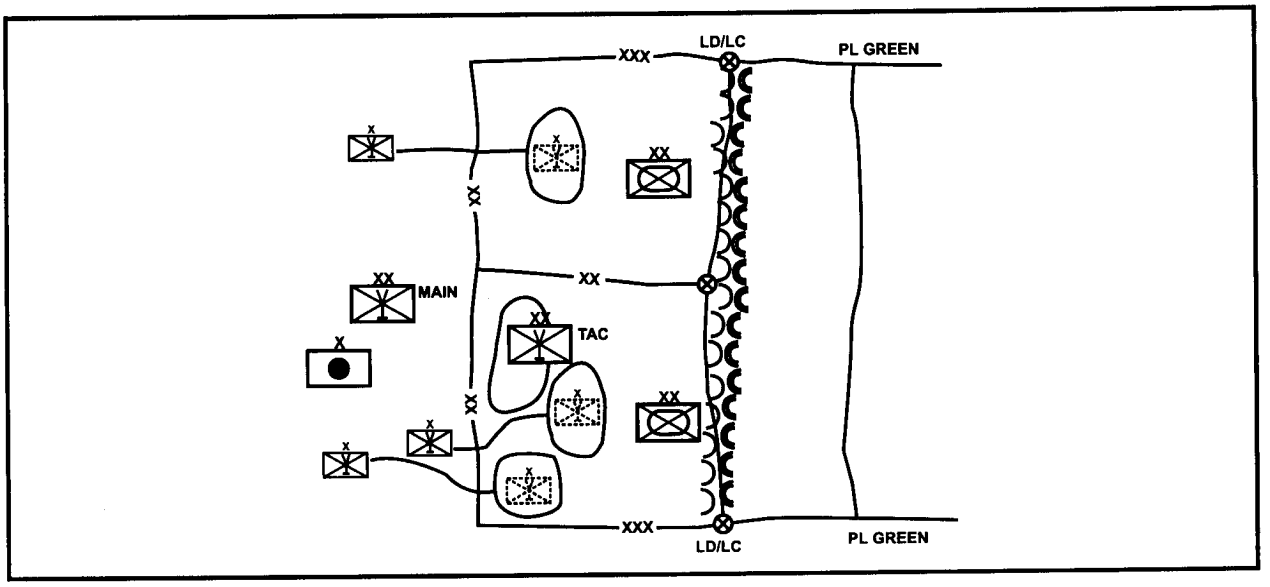


Figure 3–8. The division concept of operations: close operations, phase one

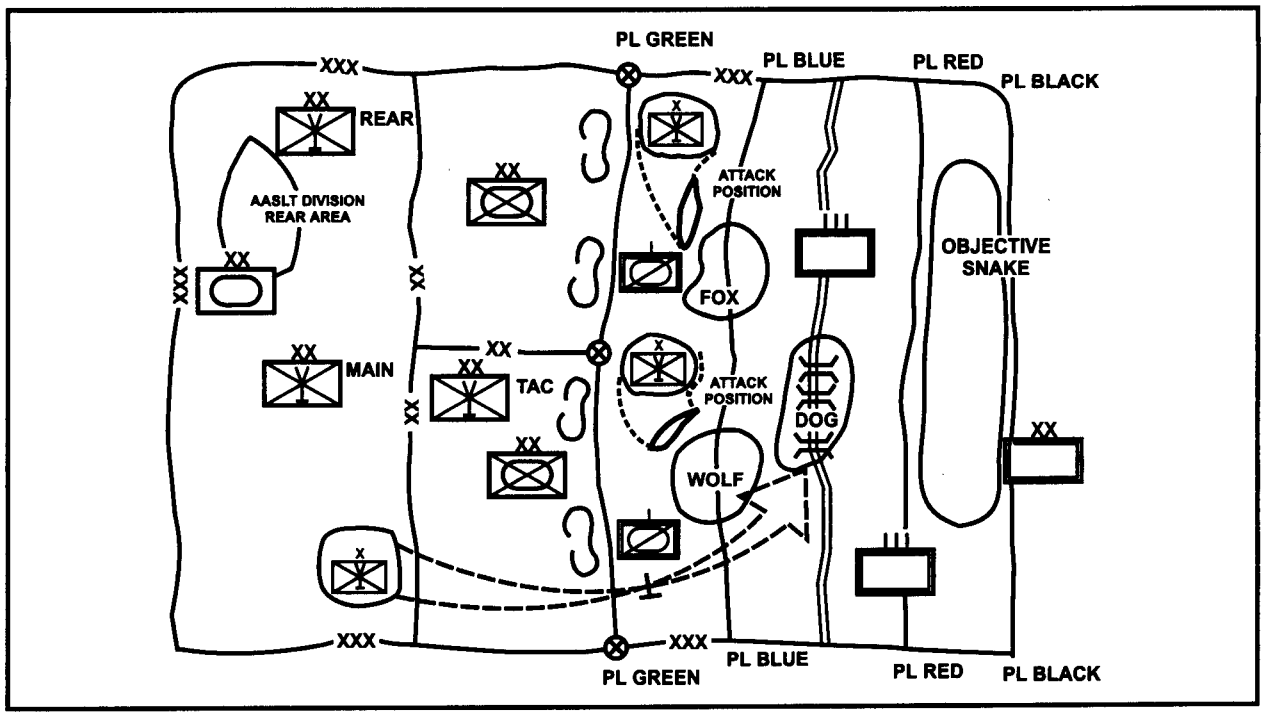


Figure 3–9. The division concept of operations: close operations, phase two

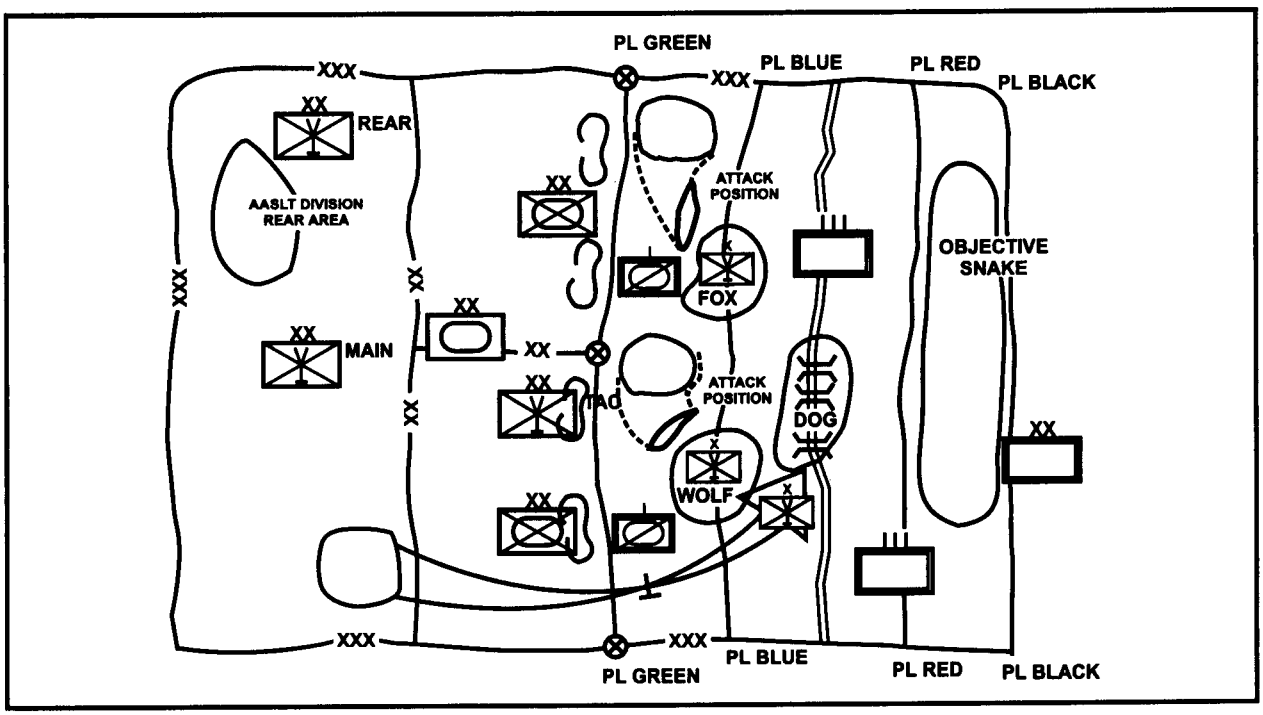


Figure 3–10. The division concept of operations: close operations, phases three, four, and five

Security Operations

The corps protects the AASLT force by deception as well as by active security. Before the air assault begins, the corps attempts to deceive the enemy about the division's movements and intent. It may conduct feints and spoiling attack operations that divert enemy attention away from the AASLT area (PZs and LZs) or conduct a corps deception plan. Once the air assault begins, the infantry division coordinates security with the defending divisions and corps.

Reserve Operations

The division initially has the third brigade in reserve until it begins movement to the PZ. Upon commitment of the reserve, the commander should reconstitute the reserve as soon as METT-T factors permit.

Intelligence

The division commander, working with the G2, G3, and fire support coordinator (FSCOORD), develops the PIR. The G2 integrates intelligence assets required to collect PIR into the division collection plan. The division submits requests for intelligence information or for additional assets to corps for support to the collection plan when the plan exceeds the division's organic capabilities.

The commander's PIR focuses on enemy units or actions which may adversely affect the AASLT or attack helicopter raid. The division coordinates with both the corps and defending mechanized divisions for previously collected information (enemy, sensor, or observation post (OP) locations). The corps' Quick Fix and division LRSD provide real-time information and intelligence.

Division MI assets support the division collection plan for all phases of the operation. In phases one through five, the AASLT division uses maneuver brigades and those assets which do not have to accompany AASLT units to collect information.

Military intelligence assets along the FEBA support both division and corps collection plans. To enhance collection of intelligence in phase five, an IEW team moves with the AASLT brigades. The IEW team accompanies the forward ground element and looks beyond objective DOG.

Fire Support

The AASLT division supports its attack with CAS, attack helicopter, artillery, and EW assets. These assets must provide responsive fires during all phases of the operation. Task-organized division artillery and a corps-reinforcing FA brigade provide responsive fire support.

Corps artillery assigns a priority of fire for each phase of the operation. During phase one, priority of fire is to the defending divisions; phase two, the AASLT division; phase three, penetrating divisions; phases four and five, the attacking armored division.

The division FSE selects areas and coordinates with the G3 (or S3 at brigade level) before positioning artillery in a unit's sector. Brigade FSCOORDs, with their maneuver commanders, position DS artillery (Figure 3-11). Artillery assets air assault forward with the maneuver brigades to precoordinated positions to support all phases of the operation—reconnaissance, air assault, attack, and linkup. They also provide responsive counterbattery fire for the brigades.

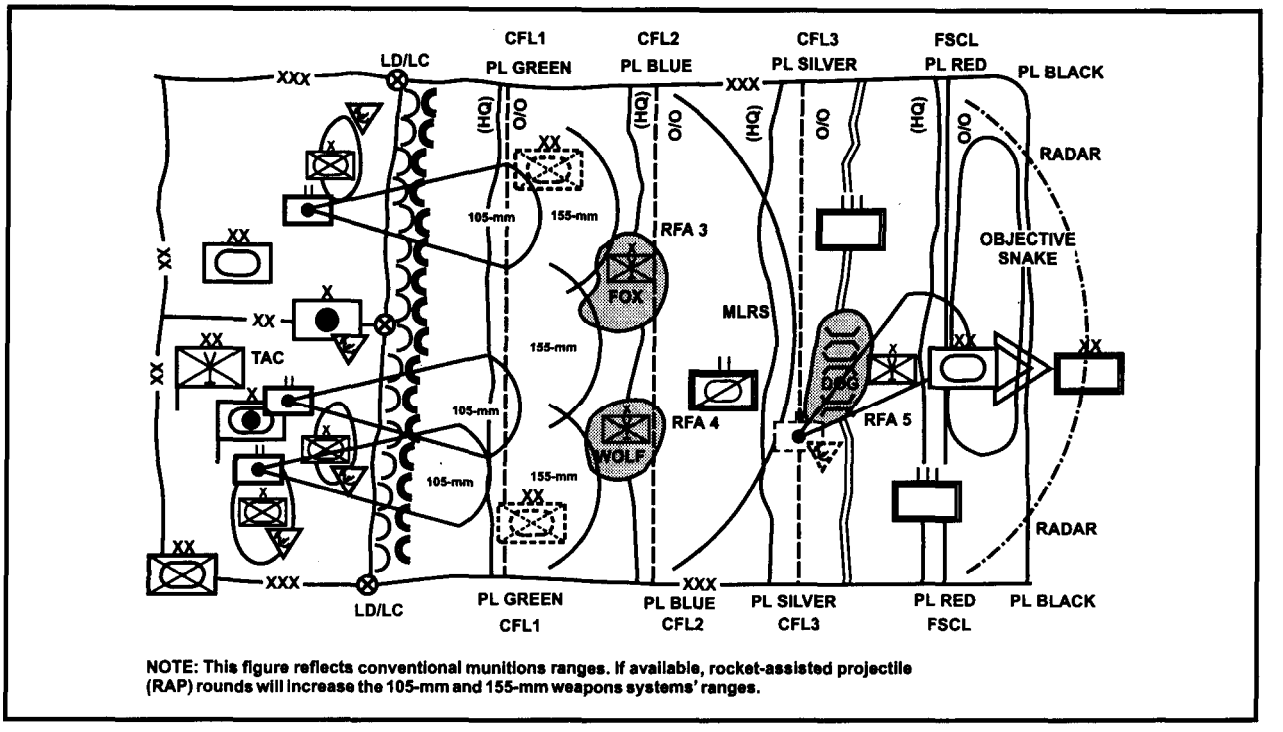
The defending armored or mechanized divisions and corps artillery battalions receive nonstandard missions to allow them to fire in support of changing priorities. The nonstandard mission sets limits on ammunition expenditure and positioning.

Units stockpile ammunition to support air assault and penetration on the ground at battery locations. Corps and division artillery units use this ammunition to fire preparations, SEAD, programs, target groups, and other types of fires. The corps artillery commander and his staff integrate fires to ensure efficient use of in-place and supporting corps artillery.

Coordination between the AASLT division and the corps FSE is critical to preventing fratricide. The AASLT division establishes and coordinates fire support coordination measures (FSCM) for AASLT corridors, LZs, objectives, LRSD locations, and link-up points.

The AASLT division FSE controls fire support between PL GREEN and PL BLUE during the air assault. In-place divisions assume responsibility for fire coordination (within their boundaries to PL BLUE) once the air assault is complete.

The armored division assumes responsibility for controlling fires (beyond PL BLUE) when its lead



NOTE: This figure reflects conventional munitions ranges. If available, rocket-assisted projectile (RAP) rounds will increase the 105-mm and 155-mm weapons systems' ranges.

Figure 3–11. Division concept of operations: fire support

element conducts the passage with the infantry. The corps establishes on-order restrictive fire areas (RFAs) around objectives and link-up points.

The division coordinates engagement areas (EAs) and family of scatterable mines (FASCAM) minefield with the corps. Together they seal the objectives from possible enemy reinforcement and to neutralize enemy actions to the flanks.

The corps artillery headquarters coordinates countermortar and counterbattery radar positioning and control. The AASLT division FSE coordinates radar coverages with the defending division's FSEs.

DIVARTY places radars to provide continuous support throughout the AASLT division's sector. The corps establishes Quick Fire channels between radars and firing units to rapidly silence enemy indirect-fire systems which might affect the corps' plan. A Q-36 radar with the third brigade's DS artillery provides counterbattery coverage at river-crossing sites.

Mobility and Survivability (M/S)

Priority of engineer support within the AASLT division is M/S in deep and rear areas. The division attaches AASLT engineer companies to each brigade.

During the air assault and attack, AASLT engineer companies support the breaching of obstacles, reporting information on obstacles, bridge conditions, and soil composition in the areas they occupy. The AASLT division, defending divisions, and the corps use this information to prepare for penetration, attack, and follow-on movement of CSS assets.

Division AASLT engineer companies deployed with brigades breach obstacles during the assault on objectives and, where possible, in and around link-up points. The AASLT division engineer, with input from the brigade engineers and the deputy fire support coordinator (DFSCOORD), and the ALO plan scatterable mines to block enemy counterattacks and reinforcements. The AASLT division's engineer battalion retains the personnel and equipment not task-organized to maneuver brigades to support on-order (o/o) follow-and-support missions.

Air Defense

The division ADA's primary role is to provide AD coverage during all phases of the operation. For the air assault, brigades move with only man-portable air defense (MANPAD) systems. Vulcans and Avengers remain in the rear near the PZs. They provide coverage for division CS and CSS assets. Stingers provide coverage during the AASLT operation, movement to the objectives, the attack, and at link-up points.

During the air assault, the corps' ADA priority is to air-assaulting brigades. The corps pushes its high-altitude ADA coverage as far forward as possible to support the operation. Division ADA weapons are under "weapons hold" status during the air assault. Passive defensive measures are the division's primary air defense.

Air defense elements with air-assaulting brigades form a protective umbrella around and over objective areas. They maintain this coverage and extend it to cover link-up points once they secure the objectives.

After the third brigade's air assault, the corps' AD priority shifts to the attacking divisions. Air defense systems in the third brigade establish coverage for the assault and for river-crossing sites.

As soon as possible, the AASLT division's G3 directs division towed systems forward with the attacking heavy division. This strengthens coverage over choke points and river crossing sites and provides additional ground firepower if required.

Combat Service Support

Division G4 planners, in close coordination with DISCOM personnel, develop a concept for support. The concept is a detailed plan that mirrors the concept of operations and outlines the support package for the operation. Field Manual 101-5 (D) gives an example of a concept of a support plan. (See also Figure 3-12.)

Brigades can sustain field operations for from 48 to 72 hours without resupply. Throughout operations, the division commander influences the main effort by designating priority of support.

The commander weights the main effort with CSS assets, particularly CHS. (The majority of the wounded are evacuated after objectives have been consolidated.)

The G4 coordinates for maximum use of the container delivery system (CDS) to conduct resupply. The G4 coordinates with DISCOM for preconfigured push-packages of Class VIII supplies tailored to meet specific CHS mission requirements. The loading plan and staging are critical to successful air assault of CSS.

Aerial assets accomplish resupply during the consolidation on the objective. The DTO coordinates the integration of DISCOM support assets into the attacking division's follow-on logistic movement with the DISCOM commander.

The division's DTO coordinates MSRs to locations that forward brigades select. The FSBs move forward on order from their supported brigade. The DISCOM provides information on requirements and displacements.

The infantry division DISCOM headquarters may not move during this operation. Main support battalion units and elements of the MMC move near the FSBs to support reorganization of the brigades in preparation for the next mission.

Battle Command

After receiving the warning order, the AASLT division's TAC CP moves forward to coordinate the infiltration with defending divisions. The TAC CP determines brigade assembly areas, initial passage points, corridors, and link-up points as brigades prepare to move to assembly areas.

In this example, the TAC CP is forward near the LD/LC to support brigade operations. To aid in control, the AASLT division provides liaison teams to each defending division.

The AASLT division uses control measures the corps establishes for coordination. It also establishes brigade boundaries and responsibilities for each phase of the AASLT division operation. Brigade CPs move forward and collocate with brigade CPs through which they will pass, as do their battalions.

The AASLT division TAC CP moves forward behind the last maneuver brigade of the attacking armored division with the cavalry squadron ground

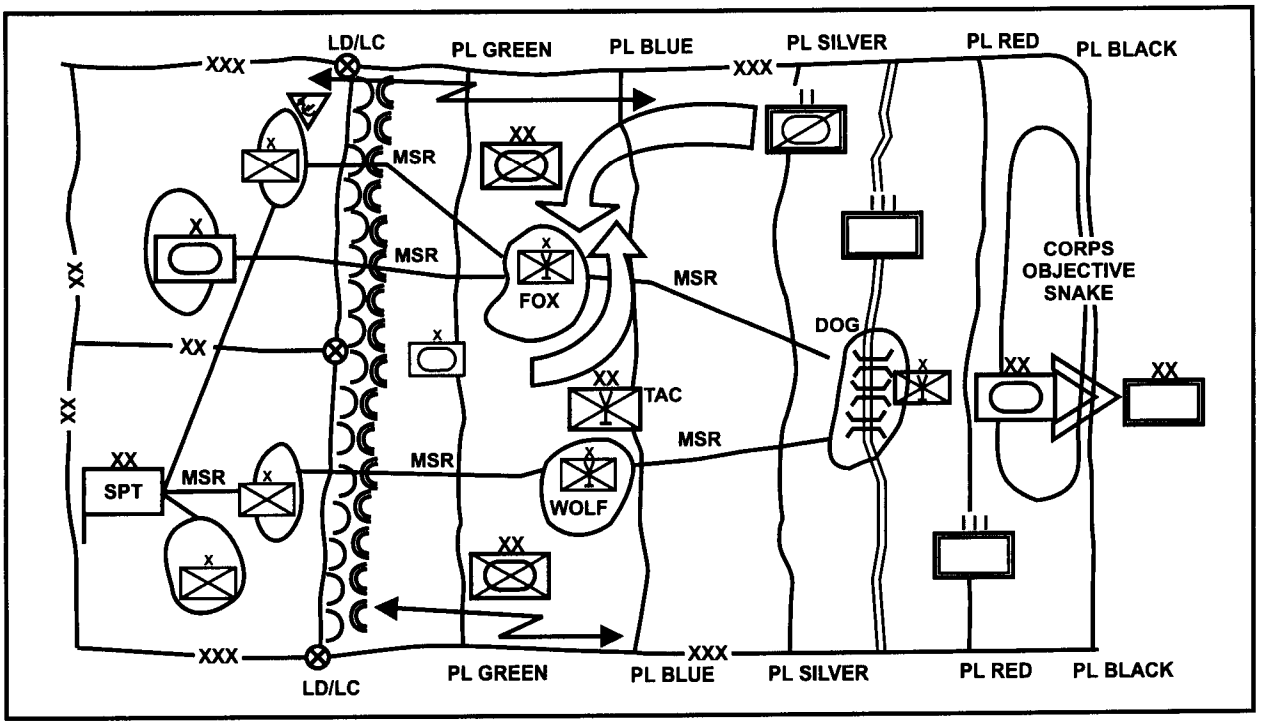


Figure 3–12. Division concept of support: combat service support

troop. This provides security to the TAC CP while it moves.

The TAC CP repositions forward near objective DOG. The jump CP air assaults with the third brigade as it secures river-crossing sites. Main and rear CPs move on order.

PENETRATION

A commander uses penetrations when enemy flanks are not assailable and other forms of maneuver are not feasible. The penetration often pits the attacker's strength against the defender's. As a result, there are higher casualty rates than with other forms of maneuver except frontal attack, which has the highest casualty rate.

The penetrating unit masses sufficient combat power at points of penetration to overwhelm the enemy. The AASLT division masses effects from fires of all available means to breach enemy defensive positions along a narrow front, to hold open the shoulder, and to degrade the effects of a counterattack.

Follow-on friendly forces rapidly exploit success of the penetrating force. Multiple penetration points may be desirable if they will cause the enemy to disperse his fires and consider multiple threats before committing.

If the AASLT division receives the mission to conduct a ground (dismounted) penetration, they conduct it as an infantry division (light) (ID (L)) would conduct a penetration. (See discussion in FM 71-100-2.) However, if the AASLT division's mission is to conduct AASLT operations deep behind enemy positions to support the corps or JTF concept, the division conducts operations in a manner similar to the deliberate attack.

MOVEMENT TO CONTACT

The AASLT division conducts a movement to contact to gain or regain contact with the enemy. The goal is to use the smallest possible force with which to find the enemy, then maneuver with the remainder of the division's forces as the situation develops. A movement to contact ends in an attack (hasty or deliberate), a defense, or a retrograde.

The best use of the AASLT division leading a corps movement to contact is as a covering force (in restrictive terrain) against a relatively static opponent or when the corps expects contact within hours of the time of attack.

In wide-open terrain against a mechanized enemy or on long movements against a largely unknown foe, the AASLT division's liabilities begin to outweigh its capabilities. Only attack aviation can hold its own in a meeting engagement with massed mechanized opposing forces.

The AASLT division cannot fight and prevail in its usual combined-arms style against massed mechanized forces. Therefore, the corps or JTF must not allow this to occur.

In open terrain, a mounted enemy on the ground might move unpredictably and quickly. He could reposition faster than could landed AASLT forces, negating their speed advantage. Although these conditions favor detection and destruction by attack helicopters, a large, organized, constantly moving, aggressive foe with mobile AD systems could penetrate the AASLT division's rear areas by outflanking blocking forces and hasty FASCAM.

On restrictive ground, dynamics change. Even strong tank formations can find themselves diverted into canalized avenues of approach, creating slower, more predictable patterns of motion.

These dynamics play nicely into the AASLT division's normal process of decision, condition setting, and execution. The resulting sequence of raids and air assaults would certainly favor the force least affected by terrain.

Even if the AASLT division's attack aviation matches up well against hostile armored formations, the division as a whole might find it difficult to maintain its OPTEMPO in the teeth of an attacking enemy armored force. This is particularly true if the tanks catch aircraft on the ground or while landing.

The AASLT division requires only a short time to establish defenses in order to hold its own. But in a movement to contact against a large armored formation, that time might not be available.

If the enemy lacks mechanized technology, or proves unable or unwilling to conduct armored combined-arms warfare, the AASLT division can regain its edge. It can find a static foe, suppress and/or destroy his ADA and fire support units, locate his maneuver forces and envelop them deep, and defeat him.

Air assault cross-FLOT operations into unknown areas without a solid IPB are high-risk operations. Movements which take more than 24 hours without contact quickly outrun the AASLT division's ability to set any sort of conditions for raids or air assaults. This consideration particularly applies when the force is opposed by a competent conventional enemy capable of his own offensive operations. If the corps or JTF develops the situation into an outright pursuit, it might run the risk of going deep with minimal information. The AASLT division should not lead the corps movement to contact in this instance.

If enemy positions are within 150 kilometers of the FLOT, especially if the enemy lacks armor or is occupying close terrain, the AASLT division becomes a much better choice to lead a movement to contact. The corps or JTF must provide an environment for the division to conduct a condition-setting cycle, particularly for intelligence and fire support, before executing major raids or air assaults.

When moving to contact under favorable conditions, an AASLT division can move within an approximate 300-kilometer radius. It relies on aviation to concentrate forces and develop the situation once significant engagement occurs (Figure 3-13).

The division usually leads with the aviation brigade and is reinforced with an infantry TF with priority on fire support, including at least one AASLT artillery battalion. Initially, the aviation brigade is the main effort.

Two brigades, each including sufficient lift aviation to insert a battalion TF, follow and support the aviation brigade in zone. They wait in a PZ posture as operations proceed, then advance via helicopter to subsequent PZs until the lead unit makes contact with the enemy.

The third brigade (minus an infantry TF and the DS artillery supporting the aviation brigade), with a battalion-size slice of lift aviation, forms the reserve. The division commander maintains a battalion of attack helicopters in reserve.

Ideally, the air cavalry squadron finds the enemy. Once the division establishes contact, it begins its usual cross-FLOT process, setting conditions to

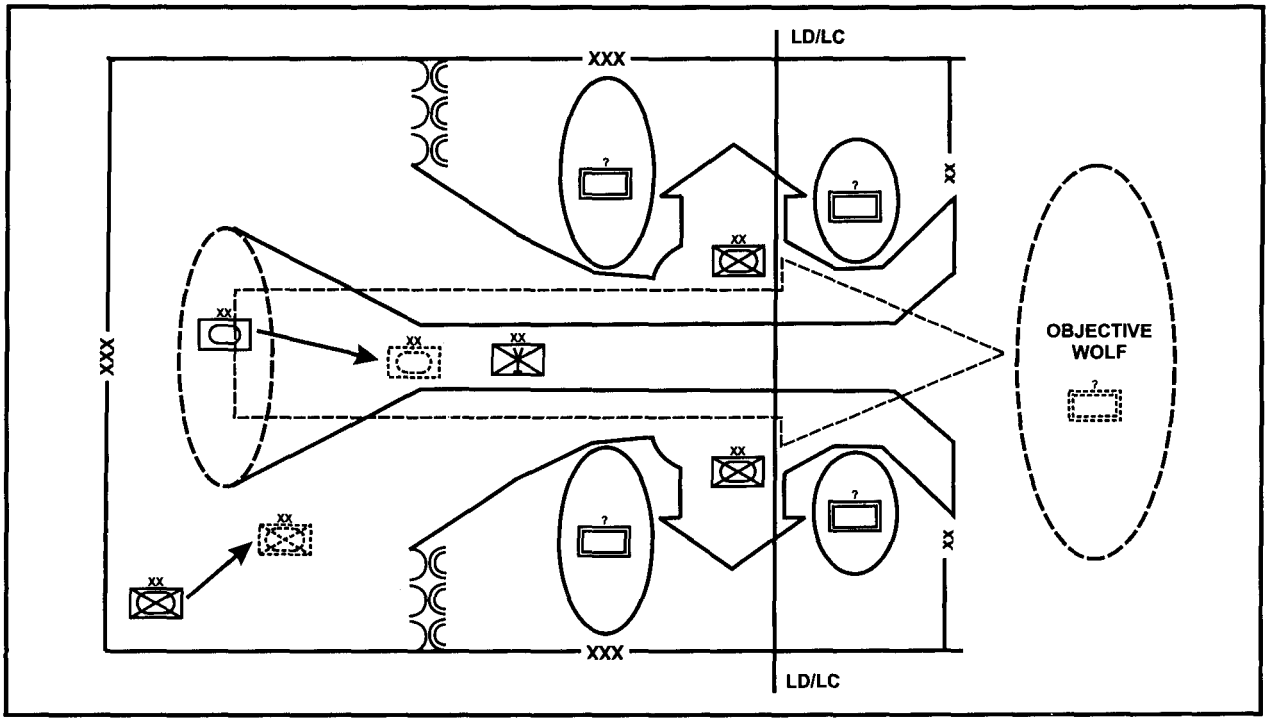


Figure 3–13. A corps movement to contact

pass behind the enemy's main combat forces. The division continues to observe the enemy and begins fire support programs for aerial envelopment by raid or air assault.

Follow-and-support brigades identify, engage, and destroy small, hostile units in zone. They fix enemy battalions for destruction by fires, hasty attack, or to prevent enemy interference in other division deep operations. The AASLT division continues this pattern of moving to contact and hasty attacks until the situation changes and a branch or sequel to the current operation begins or until the corps or JTF changes the division's mission.

The approach march, reconnaissance in force, and search and attack operations are some of the techniques for conducting a movement to contact. METT-T factors determine how a unit will conduct a movement to contact.

The Approach March

In this example, the corps successfully drives back enemy forces from their initial lines of defense. As enemy units withdraw, they break contact with friendly forces. The nature of the terrain causes the corps commander to use his AASLT division in a movement to contact to reestablish contact.

If the AASLT division's movement to contact is successful, the corps commander commits his armored force, intending to regain ground contact with the enemy and to exploit success. The current tactical situation and intelligence reports indicate—

- The enemy's exact location is unknown.
- The corps has no covering force.
- The enemy has the capability to disrupt or delay the corps.
- Friendly forces have air superiority.
- The corps heavy division is in a hasty defense and has an on-order mission to continue the attack.
- Terrain is restrictive with limited movement routes for armored forces.

Maneuver

The corps commander's concept of operations requires rapid movement over restrictive terrain. The division will lead with the aviation brigade and move with the cavalry squadron leading the aviation

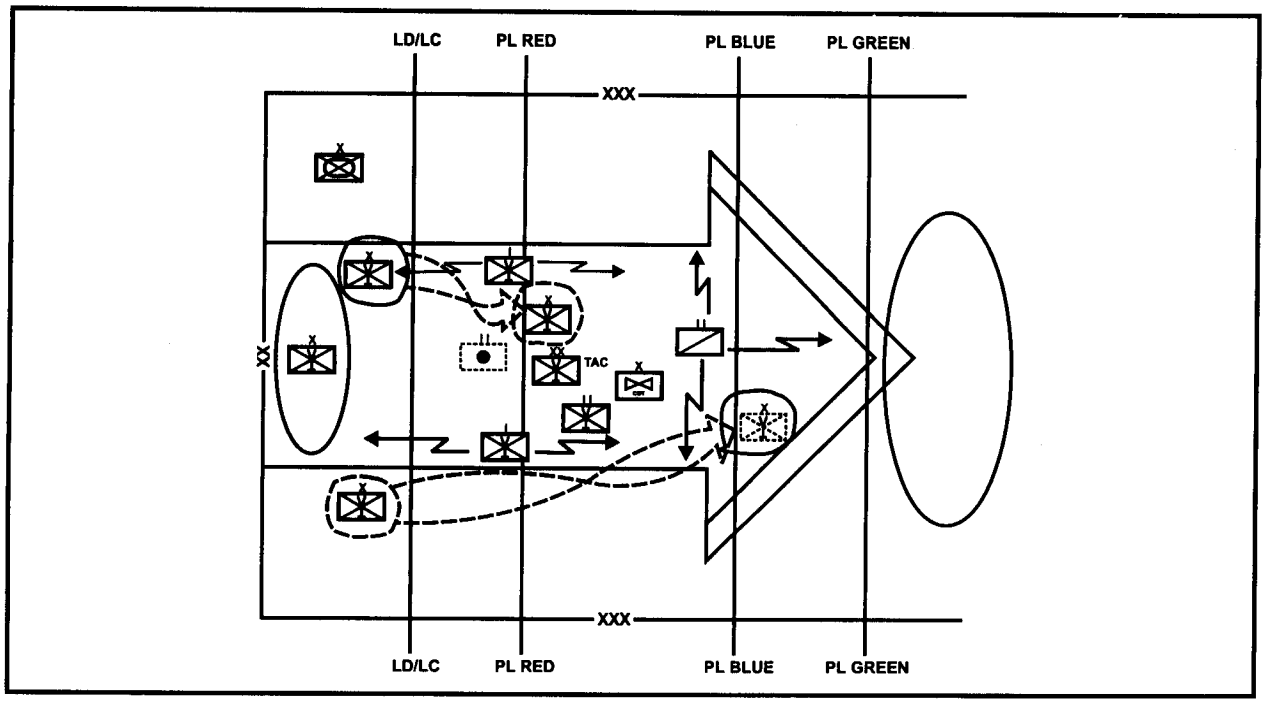


Figure 3–14. The approach march: maneuver

brigade. It will be reinforced with an AASLT battalion, an artillery battalion, then the AASLT brigades (Figure 3-14).

Figure 3-15 depicts the division's task organization. Once the division makes contact, it develops the situation.

The cavalry squadron quickly assesses the situation to determine exact enemy unit locations, strengths, depth of formation, and intentions. The aviation brigade can use AASLT infantry, attack helicopters, and/or field artillery against the enemy. If necessary, these assets take responsibility from the cavalry to filly develop the situation and destroy enemy forces.

The division has the option to destroy or contain the enemy, depending on the size of the enemy force and the situation at the time of contact. If the division does not make significant contact, it continues to move until it traverses the restrictive terrain at PL GREEN and the armored forces pass forward. Corps MLRS may be general support-reinforcing (GS-R) to DIVARTY.

Deep Operations. Using organic assets and possibly SOF, the corps conducts deep operations against uncommitted enemy forces, LOCs, and supply of those forces. It provides the division with intelligence on these uncommitted forces.

Close Operations. While the division conducts a movement to contact to gain or regain contact with the enemy, the goal is to make first enemy contact with the smallest possible friendly force. If the division commander is reasonably sure of the enemy's location and is a considerable distance from the enemy, he may elect to use a less secure but faster rate of movement until he nears the enemy's location. He can then adjust the tempo as he anticipates enemy contact.

For example, the cavalry squadron conducts a zone reconnaissance in front of the aviation brigade to locate enemy forces. On order the division may change this to a screen mission upon contact with enemy forces. The aviation brigade (+) follows the cavalry squadron while two brigades remain in their PZs.

The two brigades prepare to move forward, conducting AASLT operations if they make contact with the enemy; or air movement if they move to a subsequent PZ. The remaining brigade (-) is the division reserve.

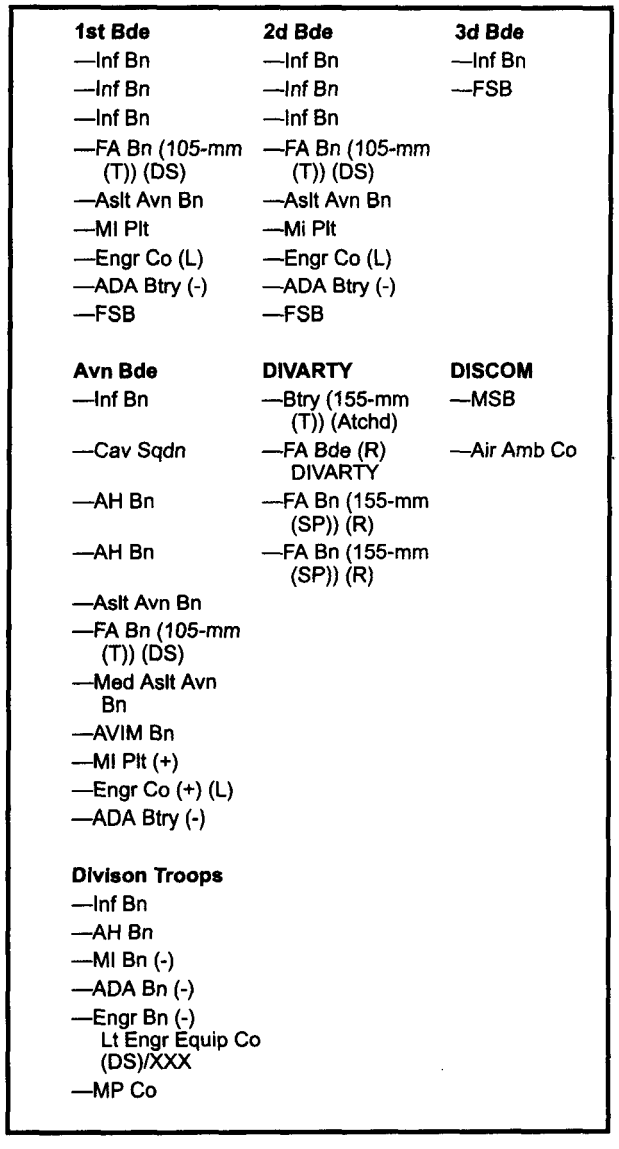


Figure 3–15. The approach march: task organization

One brigade designates flank and rear security forces and gives these units a screen mission. Each brigade integrates CS and limited CSS assets into their movement. The division cavalry squadron locates the enemy and develops the situation.

If the division commander decides to conduct a hasty attack, the aviation brigade is in position to do so. This brigade receives priority of effort within the division.

If the enemy force is of sufficient size to preclude an attack by one brigade, the aviation brigade fixes the enemy force while the lead AASLT brigade air assaults into position and moves to attack the enemy. The next AASLT brigade prepares for commitment into this fight. If the lead AASLT brigade defeats the enemy, the next AASLT brigade assumes the position behind the aviation brigade and prepares for the next enemy contact.

Rear Operations. Rear units, DISCOM, and division troops remain in the DSA. The in-place unit provides security until committed. The rear CP coordinates and synchronizes both air and ground movements forward.

Sustainment units move on order once the division secures the restrictive terrain. (Ground resupply is the preferred method.)

Security Operations. The division conducts an advance screen with the reconnaissance squadron during zone reconnaissance. Each brigade has advanced, flank, and rear guards.

The division maintains security by positioning its assets within mutually supporting distances as it moves. Early warning is critical to its security. Long-range surveillance patrols and electronic intelligence-gathering assets help locate the enemy and indicate his possible locations and intent.

Reserve Operations. The division commander retains one AASLT infantry brigade (-) and one AHB in reserve.

Intelligence

The primary mission of intelligence assets is to find the enemy and report to the commander in a timely manner. The commander establishes the CCIR early to focus the efforts of all collection assets. He approves a collection plan and specific PIR, the acquisition assets to use, and actions to take once units report PIR information. (See Chapter 5 for more information on this process.)

The division requires intelligence information continuously as it moves forward. The cavalry squadron reports directly to the TAC CP where the intelligence staff officer continuously analyzes the information along with other sources, such as those from division and corps long-range surveillance (LRS) units. Information from designated named areas of interest (NAIs) and target areas of interest (TAIs) also aids the development of intelligence to locate the enemy.

Intelligence acquisition gaps may occur. The G2 employs MI assets in layers to see the battlefield to fill these gaps. Maneuver units accomplish forward and flank information-gathering. The MI battalion moves its assets as necessary to accomplish its mission.

Fire Support

Primary fire support considerations in a movement to contact include anticipating enemy actions during the movement and when organizing for combat and moving artillery battalions and ammunition forward. Also important is the ability to provide rapid and accurate fires on targets which affect the force's survivability and mission.

In this example, the division commander integrates fire support into the total mission (Figure 3-16). Establishing a Quick Fire channel improves fire support to the aviation brigade and cavalry squadron. The task organization provides flexibility, responsiveness, and agility when and where the division makes contact with the enemy.

As the division moves across the LD/LC, DS and GS artillery will be in position to provide support. Once the brigades determine air corridors and routes out of the LZs, FA units determine where to position their assets to best support the operation. Since artillery follows its brigade, the brigade maintains movement control. The division commander uses the battery with the aviation brigade to rapidly provide additional fire support as needed on the battlefield.

During the movement, maneuver elements are extremely vulnerable to enemy indirect fires. If possible, the corps augments the division with the capability to plan, execute, and coordinate effective counterbattery and counterfire programs. Artillery units carry maximum amounts of ammunition but still require resupply.

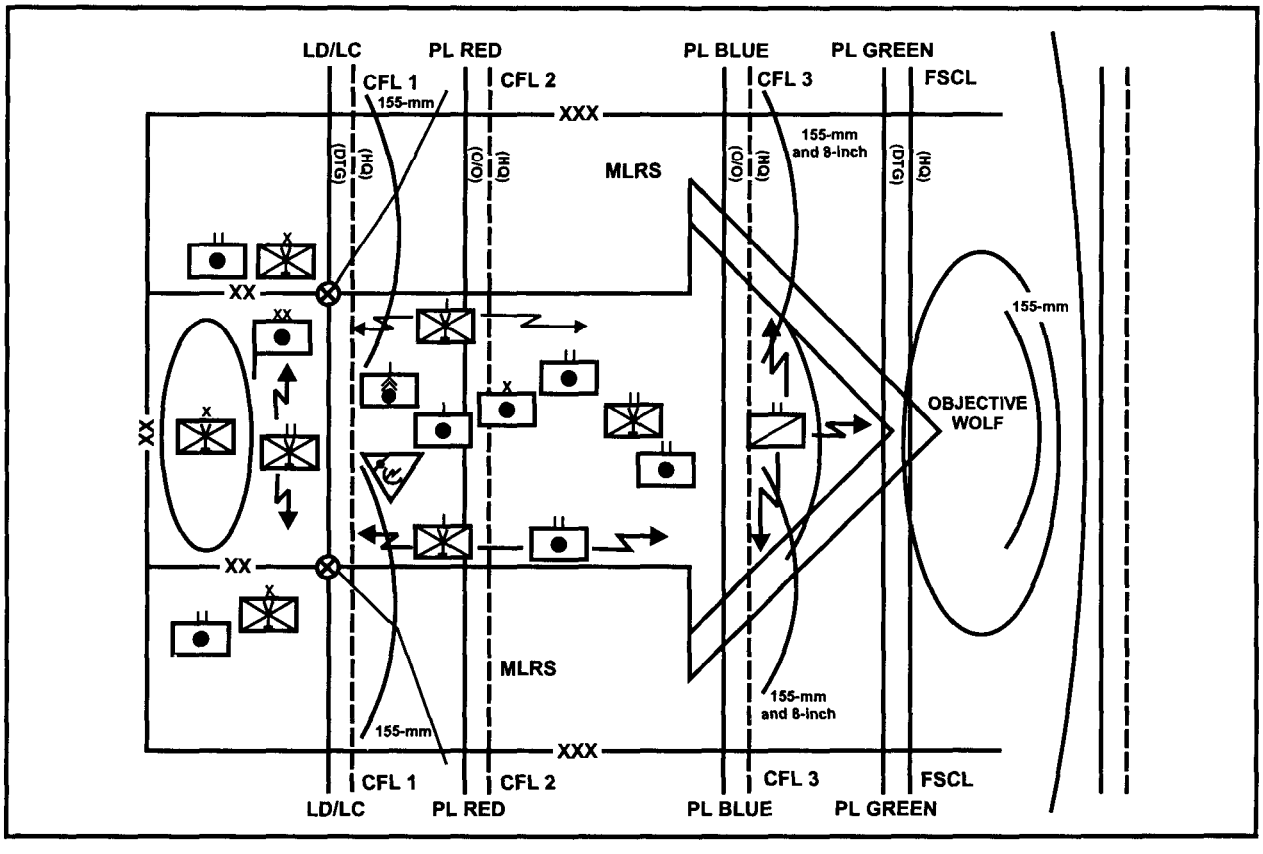


Figure 3–16. The approach march: fire support

As maneuver units move forward, FSCM ensure rapid fire support. DIVARTY headquarters locates near the LD/LC where it maintains command and control and sustainment requirements for division artillery.

Mobility and Survivability

The primary engineer mission is to locate and breach enemy obstacles to facilitate mobility of CSS elements and the corps follow-on force. The division task-organizes its light engineer companies to each brigade and the cavalry squadron.

Engineers with the cavalry squadron identify obstacles, report route conditions, and provide a limited capability for breaching obstacles. Engineers with brigades identify obstacles and report route conditions along routes of march and to the flanks.

If required, engineers on the flanks construct situational obstacles to stop possible enemy penetrations from the flank. Engineers coordinate with the division FSE to emplace FASCAM. The engineer battalion headquarters coordinates support to forward engineer companies to expedite division movement.

Air Defense

The AASLT division has limited ADA assets. Critical division resources have priority for ADA coverage. Stinger teams are in DS to brigades. For the movement, Avengers are kept under the ADA battalion's control.

The division requests additional ADA support from corps. Corps assets provide ADA protection for the rear area.

Combat Service Support

The division task-organizes for speed and stealth. Units carry a 48-hour, unit basic load (UBL) (Classes I, III, V, and VIII) to ensure brigades have limited logistic support. The FSBs move forward by wheeled vehicle when they can. Maintenance timelines are short and units replace rather than repair most unserviceable items to rapidly return equipment to use.

The DISCOM and the rear CP coordinate limited wheeled vehicle routes in the division area between the corps force and division supply points (SUPPT). The DISCOM and the rear CP displace on order when the corps force passes through the division and when MSRs are secure.

Battle Command

The commanding general positions himself well forward to seethe battlefield. The rear CP maintains a position in the rear behind the main CP. Brigades task-organize into self-contained TFs to enhance flexibility and the ability to attack enemy forces.

The division TAC CP moves behind the aviation brigade and maintains communications with the cavalry squadron. The division main CP stays at the LD/LC until the division secures the restrictive terrain and the corps heavy division passes through.

Search and Attack Operations

A search and attack operation is a likely mission for the AASLT division. Although brigades and battalions conduct it as a decentralized mission, it requires division support.

The division allocates resources; moves troops, supplies, and materiel; and assimilates and distributes intelligence. Search and attack operations are time-consuming. The division commander and staff must allow subordinate commanders enough time to develop intelligence before expecting results.

Smaller, lighter maneuver forces generally conduct search and attack operations in large areas to destroy enemy forces, to deny area to the enemy, and to collect information. They may also conduct search and attack operations—

- Against a dispersed enemy on close terrain unsuitable for armored forces.
- **In** rear areas against enemy SOF or infiltrators.
- As area security missions to clear assigned zones.

Search and attack operations can prevent the enemy from planning, assembling, and executing operations on his own initiative. Ideally, the AASLT division's three AH-64 battalions are the first element to execute this operation.

Most search and attack operations begin without detailed prior information about the enemy. The commander must produce much of his own intelligence as

the operation unfolds. Historically, units conduct search and attack operations—

- In an environment of friendly air and fire superiority.
- Against squad- to company-size forces equipped with small arms and mortars, but normally without artillery support.
- Against both regular and guerrilla forces whose locations are unknown.
- In an environment where the enemy has the advantage of knowing both the terrain and the local populace.
- At company, battalion, and brigade levels with division support.

The corps or JTF may direct the division to conduct combat operations to clear the enemy in zone. The intent may be to eliminate an enemy's ability to interfere with current or future combat operations or with an HN government's ability to protect its population. Search and attack operations orient on the enemy, not on taking or holding terrain.

To counter the threat's potentially close ties to the population, US units must gain local civilian support. PSYOPs are key to gaining this support. Therefore, search and attack operations accept some risk to friendly forces to prevent collateral damage.

The corps or JTF and/or the division must clearly disseminate ROE, strictly controlling reconnaissance by fire, unobserved supporting fires, and air strikes. The goal is to destroy the enemy, not the host nation.

A division order directing search and attack operations assigns brigade AOs and task-organizes them as self-contained forces with combat and CS forces. Brigades normally establish fire support bases for DS artillery and organic mortars. Brigades assign battalions AOs, then further subdivides those areas into company zones of action.

NOTE: Figure 3-17 shows how the division assigns search and attack brigade AOs. Figures 3-18 and 3-19 show the task organization. See FM 7-30 for the tactics and techniques for brigade search and attack operations.

The Find-Fix-Fight or Finish Cycle

A search and attack operation goes through a definite cycle. Finding the enemy focuses friendly combat power to destroy him. Fixing the opposition prevents his escape as friendly combat power concentrates against him. Finally, fighting or finishing the enemy destroys him and provides combat information to locate other hostile forces. This restarts the find-fix-fight or finish cycle.

Finding. Intelligence drives search and attack and its success depends on a careful search for the enemy and, after finding him, massing superior forces to destroy him. To find the enemy, units must conduct aggressive, continuous reconnaissance. Commanders must resist the temptation to rely on saturation infantry patrols at the outset. Instead, they must develop a detailed picture of the enemy and the region so soldiers can enter it in force.

Searching is a time-consuming process. It only becomes effective when done methodically over time. This gives the TF an area awareness equivalent to the enemy's initial local knowledge. The IPB involves the entire staff and keys on enemy CSS, the least mobile part of his array.

Finders maneuver to see the enemy, not kill him. Observation post (OP) and/or listening post (LP) units conduct surveillance, LLVI listen, and GSR scans while most of the infantry secures finder items. The division uses patrols (which must be slow and stealthy).

Finding may require days or even weeks to discern enemy patterns, depending on METT-T. The ideal result is an in-depth picture of the hostile CSS system and locations.

Fixing. Once friendly forces determine the location of a vulnerable CSS node or other lucrative target, the AATF maneuvers a small force (a company or team at the battalion level) to fix the enemy at the site. This force intends to become decisively engaged.

Fixing sets conditions for employing fighters or finishers. Fixers must maintain contact. Fixers may finish off small, isolated, or lightly held hostile outposts without additional forces, but that is the exception, not the rule.

If the fixing unit can hold the opposing force, the TF masses combat power to overwhelm the enemy. The AATF may conduct a hasty or deliberate attack to destroy the hostile force.

If the TF cannot concentrate sufficient combat power, it may keep the enemy force under

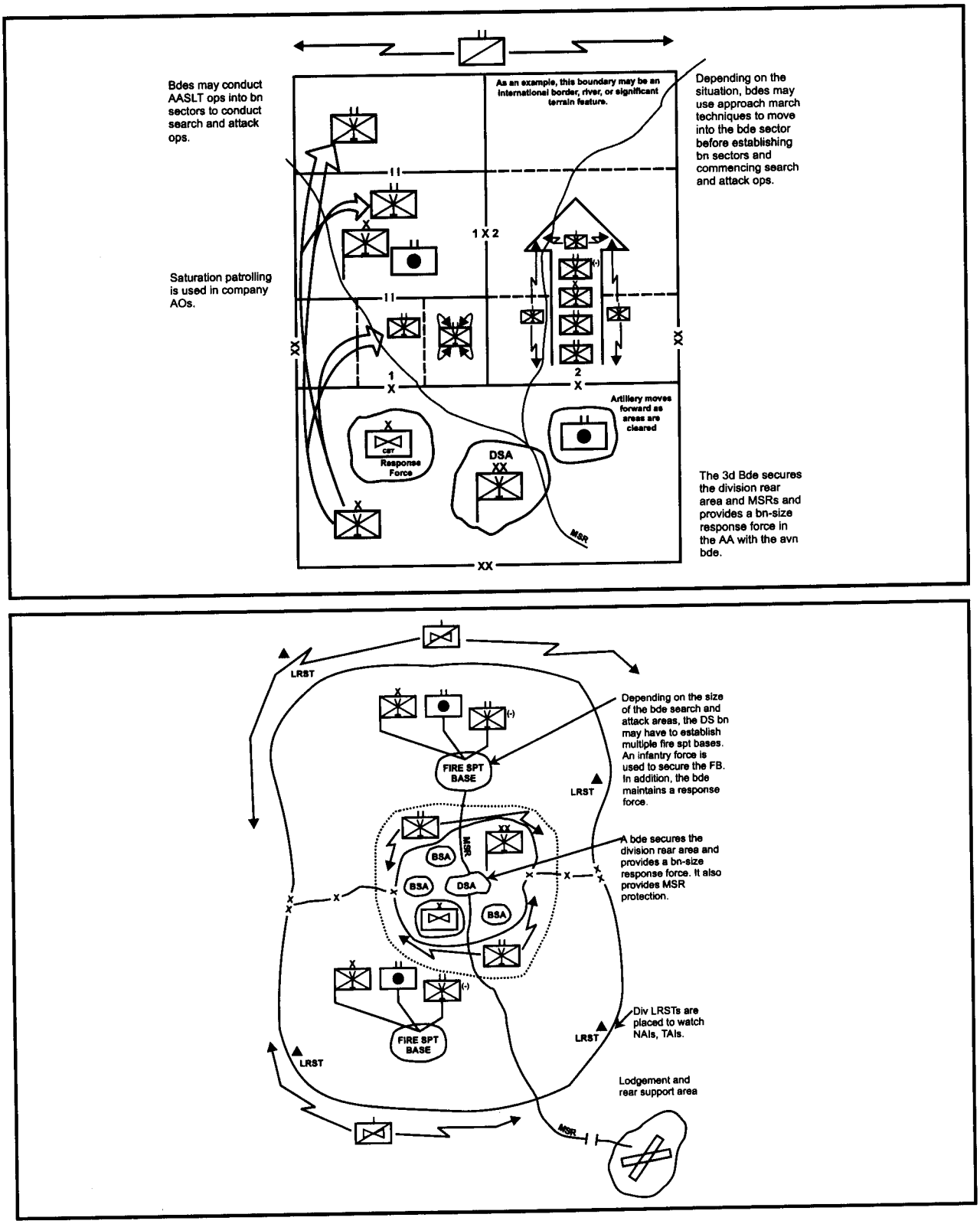


Figure 3–17. Division assignments of brigade AOs

1st Bde	2d Bde	3d Bde
—Inf Bn	—Inf Bn	—Inf Bn
—Inf Bn	—Inf Bn	—Inf Bn
—Inf Bn	—Inf Bn	—Inf Bn
—Aslt Avn Bn (OPCON)	—Aslt Avn Bn (OPCON)	—Aslt Avn Bn (OPCON)
—FA Bn (105-mm (T)) (DS)	—FA Bn (105-mm (T)) (DS)	—FA Bn (105-mm (T)) (DS)
—Engr Co (L)	—Engr Co (L)	—Engr Co (L)
—ADA Btry (-) (DS)	—ADA Btry (-) (DS)	—ADA Btry (-) (DS)
Division Troops	**DIVARTY**	**Aviation Brigade**
—Cav Sqdn	—FA Btry (155-mm (T))	—Atk Bn
—Engr Bn (-)	—FA Bde (-) (R)	—Atk Bn
—Lt Engr Equip Co (DS)/xxx	—FA Bn (155-mm (SP))	—Atk Bn
—ADA Bn (-)	—FA Bn (155-mm (SP))	—Med Aslt Avn Bn
—MI Bn		—Cbt Spt Avn Bn
—MP Co		
—MP Co/xxx (OPCON)		
—CA Co (-)/xxx		
—PSYOP Co (-)xxx		
DISCOM		
—MSB		
—FSB		
—FSB		
—FSB		
—AVIM Bn		
—Trk Co/xxx		
—Air Amb Co		

Figure 3–18. Task organization: search and attack

TF 4-502		
Tm A	**Tm B**	**Tm C**
1 Plt/A	1 Plt/B	1 Plt/C
2 Plt/A	2 Plt/B	2 Plt/c
3 Plt/A	3 Plt/B	3 Plt/C
SEC Plt	4 Plt/D	Mort Sec
Mort Sec	5 Plt/D	3/4/B/2-44 ADA
1/4/B/2-44 ADA	Mort Sec	3/4/B/326 Engr
LLVI 1/B/311 MI	2/3/B/2-44 ADA	2/3/288 PSYOP
LLVI 2/B/311 MI	4/B/326 Engr (-)	
GSR 1/B/311 MI	1/3/288 PSYOP	
GSR 2/B/311 MI		
TF Control		
Tm D		
1 Plt/D		
2 Plt/D		
3 Plt/D		
4/4/B/2-44 ADA		
TF Main CP		
Mort Plt		
Tm B/TF 9-101 (OPCON)		
4/B/2-44 ADA (-)		
1/415 CA		
3/288 PSYOP (-)		
Cbt Tns		

Figure 3–19. Air assault battalion TF task organization: search and attack

surveillance until the brigade can shift reinforcements or blocking forces as required. If the fixing force meets a more powerful opponent, it might have to withdraw or assume a hasty defense, pending reinforcement.

Fighting or Finishing. When a contact arises, or intelligence indicates the presence of a vulnerable enemy element, friendly forces must entrap or encircle the hostile force. The AATF attacks those contacts most likely to pay off in destruction of enemy capability and production of new intelligence. They continue to fight until a decisive finish occurs and they have destroyed or captured enemy forces. This necessitates rapid, precise placement of strong maneuver forces.

In search and attack missions, the AATF's reserve stands by with its aircraft in PZ posture, ready to attack once conditions are set. It air assaults on, or as close as possible to, the fixed enemy or CSS site and destroys him.

The fighting or finishing unit gathers prisoners, documents, and artifacts to feed the "find" part of the continuing cycle. A typical search and attack tempo might take up to a week to find, a day to fix, and another day to fight or finish the mission, Exact times depend on METT-T, but in any case, fixing, and especially finishing, proceed rapidly.

Maneuver

The success of search and attack operations depends on carefully searching for the enemy and, on finding him, massing superior forces to destroy him. On finding an enemy force, friendly units take one of several actions.

If the searching force is able to mass sufficient combat power to overwhelm the enemy, it may conduct a hasty or deliberate attack to destroy the enemy force. If it is not able to mass sufficient combat power, it may keep the enemy force under

surveillance until reinforcement and fixing forces arrive. If a larger enemy force discovers the search and attack force, the smaller force may have to withdraw or assume a hasty defense pending reinforcement.

When contact occurs, or intelligence indicates the presence of an enemy force, friendly units entrap or encircle the enemy force. In most cases it is not sufficient to use only an attacking force and a blocking force.

Ground combat units cover the most likely routes of withdrawal; light reconnaissance elements cover the less likely routes. Units use air or other mobile means to emplace and/or extract forces to exploit time and space advantages.

Commanders rapidly adjust plans to enemy movements and alter schemes of maneuver to fix and destroy the enemy. Speed and deception characterize tactical maneuver. While speed is essential, commanders must pay meticulous attention to continuous provision of air, artillery, and if available, NGF support.

Intelligence

There are three intelligence methods in search and attack operations: reconnaissance, human intelligence (HUMINT), and aerial surveillance and acquisition.

Reconnaissance. Aggressive, continuous reconnaissance is essential in all search and attack operations. Saturation patrolling by platoon- or squad-size units, either on foot or delivered by helicopter, is a prime source of information. The AASLT division should immediately exploit these enemy contacts. Commanders understand and accept that searching is time-consuming and can only be effective if done methodically.

The division LRSD observes likely enemy avenues of approach. It also observes and reports on areas the G2 identifies as potential enemy base camps or cache sites.

Because some of these operations may occur within brigade areas of responsibility (AORs), the G2 closely coordinates the collection plan with brigades and exchanges information to prevent fratricide or duplication of effort. (Using LRSDs is in addition to the acquisition efforts of brigades and battalions.)

The division cavalry squadron is also an integral part of intelligence acquisition. The squadron is normally retained in GS of the division. The G2, through the G3, tasks both air and ground elements with intelligence-collection tasks.

Like the LRSD, the squadron operates within brigade AORs and must be part of the overall acquisition plan. The division does not give these assets to brigades for their use.

Special operations forces within the division AOR are another important intelligence-acquisition source. The division can request special reconnaissance missions through the corps or JTF or joint special operations TF headquarters. Division forces must know the locations and missions of SOFs to prevent fratricide and duplication of effort.

Human Intelligence. The division can obtain information on enemy forces by establishing close liaison with province, district, and village leaders. Frequent visits to local villages by searching forces (such as MP, HN, or security forces) often yield accurate and timely information on local enemy forces. This technique is especially effective if enemy forces have oppressed the local population.

Aerial Surveillance and Acquisition. Aerial platforms yield valuable information on enemy forces. The division should maximize infrared detection, visual observation, and communications intercept.

Fire Support

Divisional units receive fire support during search and attack operations by artillery, mortars, attack helicopters, CAS aircraft, and when available, NGF. Brigades establish fire support bases for supporting artillery and organic mortars within brigade AOs.

Bases provide complete coverage of the AO and are mutually supporting. Establishing bases often requires insertion and resupply by helicopters.

Sufficient security forces must be on hand for protection. Units must filly fortify fire support bases and ensure they have all-around security including countermobility obstacles and survivability positions.

Attack helicopters normally operate from the division rear area and do not locate within the search AO. The aviation brigade ensures the positioning of these assets to provide rapid and responsive fire support when divisional units locate enemy units.

Air Defense

Normally, enemy forces will not have air assets in this environment. In most cases, the division only requires ADA if it conducts operations close to a hostile nation which possesses an offensive air capability. The division G3 normally positions AD assets in the division rear area.

Mobility and Survivability

The division engineer allocates engineers to the brigades primarily to support mobility, countermobility, and survivability requirements in the close fight and for rear area operations. The division engineer normally task- organizes engineers in a command relationship based on the nature of decentralized, small-scale, search and attack techniques. Typical missions requiring engineer effort include engineer reconnaissance, breach operations, ammunition cache destruction, route or MSR clearance, and protective obstacle support.

Combat Service Support

DISCOM normally provides CSS for units conducting search and attack operations on an area support basis. Resupply is normally by both ground and air, depending on terrain. Medical evacuation normally is by aerial evacuation to brigade rear support areas.

Increases in Class V small arms, hand grenades, Claymores, and mortar and artillery ammunition normally occur, Forward-deployed units are normally resupplied with small arms by air. Convoy escorts are critical to protect resupply efforts. Units must ensure they maintain security for LOCs and supply locations.

Battle Command

During search and attack operations, the division TAC CP normally deploys forward in the AO, generally near a major reserve force. The TAC CP's primary mission is to provide division-level intelligence and attack assets to maneuver brigades. The TAC CP commands and controls all division assets in support of search and attack operations, including the cavalry squadron in GS to the division and the three AHBs initially under aviation brigade control.

Although C^2 of search operations in search and attack operations is usually decentralized, for maximum effectiveness the division and brigades must centralize C^2 of the attack portion. Once a friendly unit establishes contact with an enemy force, the division or brigade immediately masses combat power to prevent the enemy's escape.

The division controls helicopter assets that brigades and battalions need to mass combat power. The main CP makes these assets available **as** quickly as possible.

Rear Operations

The division normally maintains a rear area with division support elements and the aviation brigade. Depending on the tactical situation, at least one brigade probably secures this area, which may be adjacent to the search and attack AOs or some distance away.

Both the main and rear CPs locate in the secured area. The rear CP is responsible for rear operations.

EXPLOITATION AND PURSUIT

A division conducts exploitation and pursuit operations to take advantage of a weakened or collapsed enemy defense. The exploitation's purpose is to prevent the enemy from reconstituting a defense and withdrawing to other defensible terrain and to destroy his C^2. Figure 3-20 depicts a corps exploitation and pursuit operation.

The AASLT division transitions to exploitation when the enemy cannot maintain or reestablish a coherent defense. For example, he may have lost major portions of his C^2 structure; his AD, artillery, logistic assets; and the mobile reserves he could have used to restore the situation.

Because AASLT forces rapidly jump intervening terrain, they perform well in shaping the battlefield to prevent enemy reconstitution of a defense. The

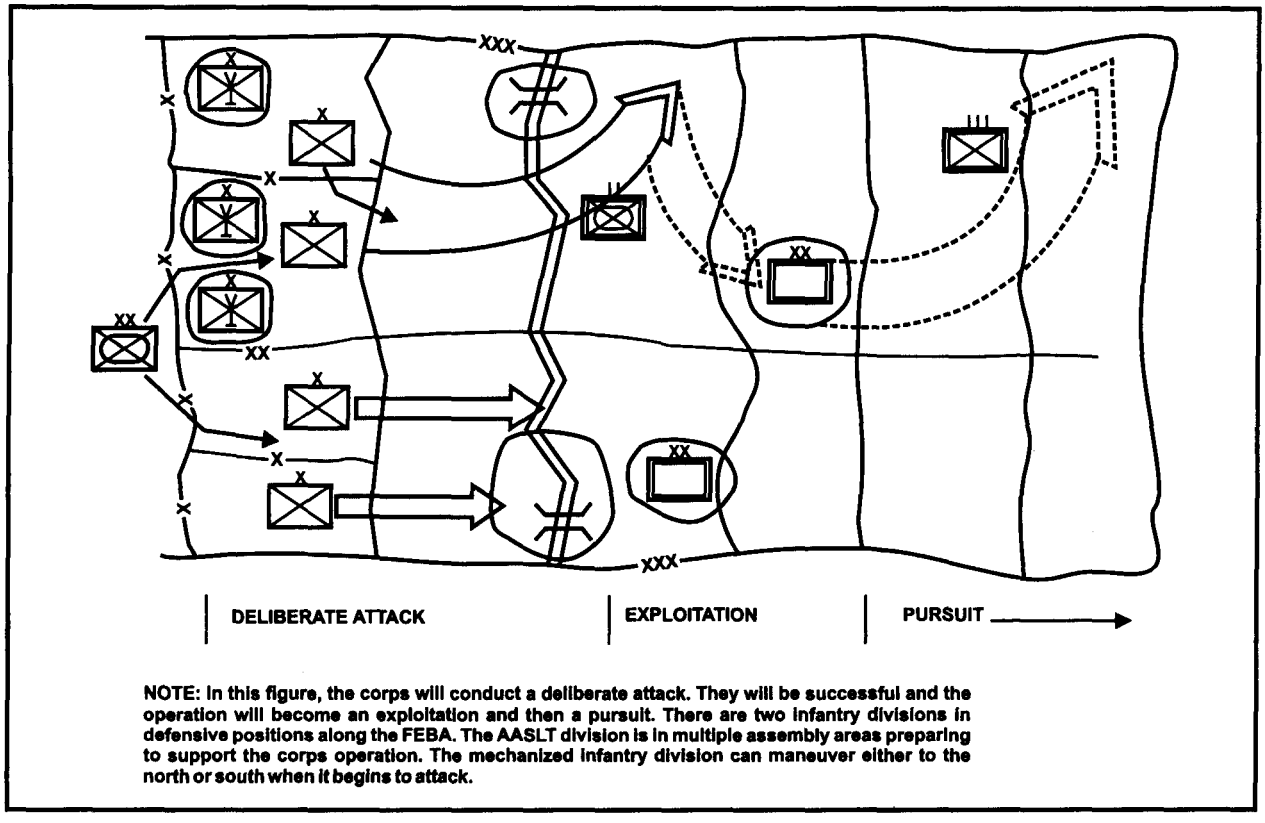


Figure 3–20. Corps-level exploitation and pursuit

division reserve often enters action to exploit a successful main attack.

The division exploits in a combination of movements to contact, hasty attacks, and deliberate attacks. Air assault operations easily traverse rivers, swamps, forests, and mountains to secure key ground to cut off enemy movements. The division seizes FOBs and builds airheads into FOBs to create launching pads for a relentless series of aerial operations.

Raids go deep to continue the destruction of enemy AD, artillery, command facilities, CSS, and mobile reserves. Intelligence and CSS deserve special attention during exploitations. As the enemy dissolves and the battlefield deepens, both systems strain to meet the AASLT division's needs.

The division uses USAF reconnaissance; joint surveillance, target attack radar system (JSTARS) tracks; and Army aviation as principal means of seeing deep. Air cavalry troops and AHBs conduct reconnaissance and screen flanks to maintain contact and to guide and support follow-on and AASLT forces.

The division pushes MI electronic collectors out with combined-arms raids and air assaults. Analysts focus on enemy unit movement (speed, size, type of formation, direction, and so on) and emitters (type, location, movement, numbers, and soon) as they try to update a dynamic IPB template.

Logisticians use FOBs, logistic assault bases (LABs), and a network of MSRs and FARPs to sustain air and ground movements. With bypassed enemy platoons and fragments all across the zone, the division will most likely commit up to a brigade to secure these vulnerable, valuable CSS nodes.

During an exploitation, the division assumes risks on flanks, in the rear, and in planning deep operations. When pressed, an exploitation sets conditions for a pursuit. The exploitation may follow a deliberate or hasty attack when—

- The enemy is unable to maintain or establish a defense.

- Friendly forces overrun enemy artillery and C^2 positions.
- There is an increase in captured enemy equipment and EPWs.
- Friendly forces capture enemy supply dumps.

Pursuit normally follows a successful exploitation. A pursuit is designed to catch or cut off a hostile enemy force attempting to escape with the aim of destroying it.

Friendly units transition to pursuit when the enemy ceases to try to defend or counterattack and attempts to break contact and getaway (normally in a highly disorganized manner). Once forces begin the pursuit, they do not stop until they have destroyed the enemy.

A pursuit operation involves a direct pressure force to prevent enemy disengagement and an encircling force to get into the enemy's rear area to block or prevent escape. The direct-pressure force attacks day and night to drive the fleeing foe into the trap set by the encircling force. Once the direct-pressure force gets the enemy into the designated EA, USAF strikes, fires, and maneuver finish him off.

The commander normally uses a direct-pressure force, usually the lead force from the exploitation, and an enveloping force to block the enemy's escape. The intent is to catch the enemy between these two forces and destroy him.

The AASLT division pursues on its own or, preferably, as part of a coordinated corps or JTF operation. Its attack aviation can provide direct pressure, although the preferred method is for an OPCON armored brigade or a coordinated armored division to perform this role. An AASLT brigade sent to secure a choke point and block enemy withdrawal offers an ideal means of completing the encircling task. (See Figure 3-21.)

In pursuit, the AASLT division's aerial envelopments are usually continuous. Brigades may air assault, destroy an enemy force, consolidate, build up a LAB or FOB, then prepare to conduct and execute another AASLT operation. Operations will likely continue in daylight (a deviation from the usual practice on air assaults and raids) because of the acceptable risks friendly forces encounter when the enemy is in a completely disorganized retreat.

The division maintains the momentum until the enemy has been destroyed or surrenders. The transition from exploitation to pursuit normally begins when—

- The division advances without a strong enemy reaction.

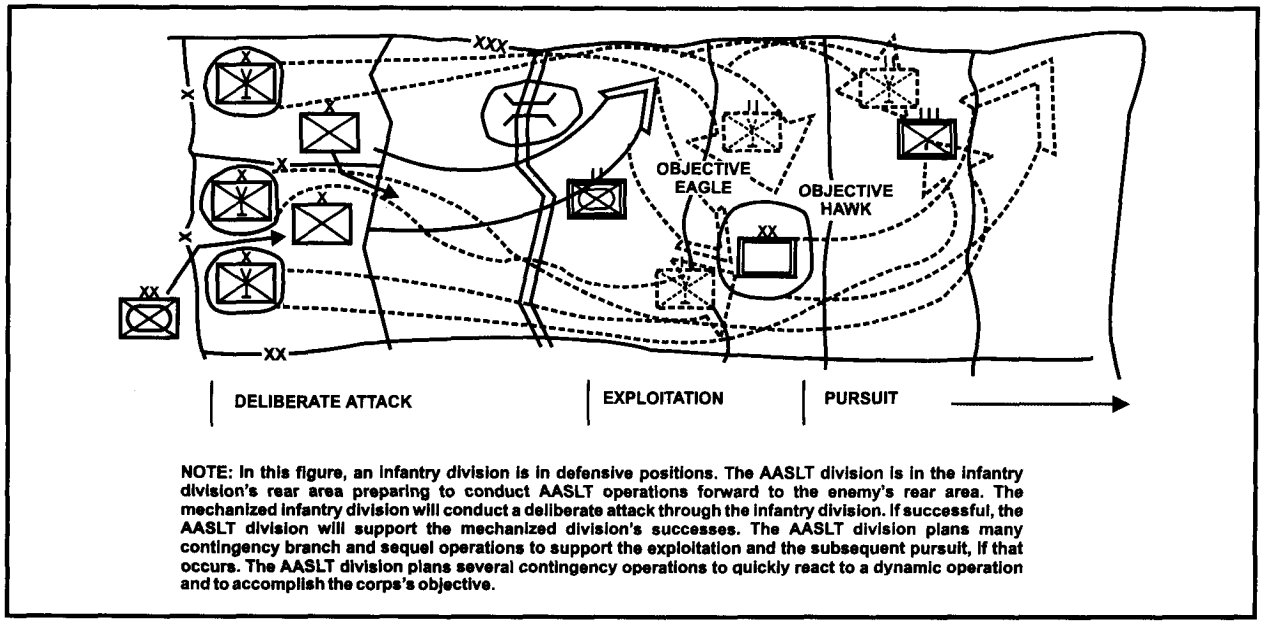


Figure 3–21. An AASLT division supporting a corps pursuit operation

- Friendly forces encounter an increased number of EPWs, abandoned weapons, and unburied enemy dead.
- There is a lessening of enemy artillery fire.
- Enemy obstacles are lacking.

Decentralized execution characterizes exploitation and pursuit operations. However, the corps commander and his staff continuously monitor exploitation and pursuit operations. They ensure the division does not overextend the corps to keep it from being put at risk by an enemy counterattack.

Although transitioning from the attack to exploitation and pursuit may present a major opportunity to destroy enemy forces, commanders must exercise extreme care. Too rapid an advance risks overextending lines of supply (LOS) and LOC. This may give the enemy an opportunity to isolate the pursuing force or to counterattack into an exposed flank.

The transition from deliberate attack to exploitation and pursuit may be abrupt or so gradual it is hardly distinguishable from current operations. Once the transition occurs, commanders ensure units make every effort to maintain pressure on the enemy.

Small enemy units are bypassed by the direct-pressure force unless they are a threat to the division or cannot be bypassed. Maneuver elements of the division main body or follow and support operations of other units destroy bypassed forces. The exploiting force directs follow and support units to enemy positions.

The AASLT division executes exploitation and pursuit operations in much the same way as the ID(L) executes these operations. The most significant difference is the amount of organic aviation the AASLT division has.

The commander uses his AHBs as a direct-pressure force if he does not have an armored force. The mobility and firepower of attack helicopters make them an ideal asset for the direct-pressure force.

If an armored force is available for the direct-pressure force mission, the commander can use attack helicopters to attack enemy forces from the flanks. Assault helicopters also have a significant capability to place infantry forces into blocking positions using organic assets. The AASLT division performs exploitation and pursuit operations similar to those of an ID (L), but they have the capability to move much faster.

NOTE: See also FM 71-100-2, Chapter 3.

FOLLOW AND SUPPORT

The corps or JTF may assign the follow and support mission to the AASLT division. As a follow and support force, the division is a committed force. It follows a force conducting an offensive operation (normally a pursuit or exploitation).

As a follow and support force, the division must retain the agility and flexibility to respond rapidly to the needs of the supported force. The follow and support force may require MP, MI, and PSYOP assets to meet these capabilities:

- Destroy bypassed units.
- Relieve in place any direct pressure or encircling force which has halted to contain the enemy.
- Block movement of reinforcements.
- Secure LOCs.
- Secure EPWs, key areas, and installations.
- Secure key terrain.
- Control refugees.

The follow and support mission requires centralized planning and decentralized execution. The division can expect to commit elements piecemeal, from company to battalion size, when reacting to bypass situations the lead division creates.

Because of transportation mobility differences, the AASLT division might need ground transportation augmentation to achieve mobility comparable to that of the division they are following and supporting. When committed, the AASLT division moves its units via helicopters. With this exception, the AASLT division conducts follow and support missions similar to those of the ID (L).

NOTE: See also FM 71-100-2, Chapter 3.

Chapter 4

AIR ASSAULT DIVISION DEFENSE

Joint task forces, corps, divisions, and brigades use a variety of tactics and techniques to execute a defense. The tactics and techniques in this chapter describe only one way the AASLT division may conduct operations.

TYPES OF DEFENSE

The defense is a temporary measure adopted until the division can resume or assume the offense. Defense as a form of warfare does not directly produce decisive victory. Therefore, the division aggressively conducts the defense to wrest the initiative from the attacker.

The commander mixes defensive and offensive tasks in his defensive concept of operations. His concept clearly identifies how to seize the initiative. His concept also envisions a sequel to maintain the initiative, transition to the offense, and exploit tactical successes.

The defense may be one battle or a series executed over time. The division gives subordinate units defensive tasks to contain or trap an enemy force, deny area access, attrit the enemy, or perform tasks with an economy of force characteristic.

The division also gives some units tasks to attack or counterattack. The intent is to set the conditions to gain (or regain) and maintain the initiative for decisive offensive action. Without a compelling reason to defend, the division attacks.

There are two forms of defense—mobile and area. Mobile defense orients on the destruction of enemy forces by trading terrain to expose the enemy to a counterattacking mobile striking force. Area defense focuses on denying the enemy access to designated terrain for a specified time, rather than the outright destruction of the enemy.

Mobile defense can be more lethal than area defense because it concentrates the bulk of combat power on the enemy force, producing a decisive result. It requires a large mobile striking force, the capability to mass overwhelming fires, adequate maneuver area in depth, and at least air parity with an effective air defense. The mobile defender has the freedom and capability to maneuver.

Area defense forces deploy laterally and in depth, retaining terrain rather than focusing on enemy destruction. When defending against armored forces in close terrain, area defenses normally defend on high-speed avenues of approach. Area defenses are best—

- In rough terrain.
- When a unit must retain specific terrain.
- When the sector lacks depth.
- When the defender lacks sufficient maneuver potential compared to the enemy.

When operating independently, as in a jungle or when encircled, units may find themselves in a perimeter defense.

FUNDAMENTALS

All defenses must use terrain properly. Terrain is a force multiplier for infantry units. It facilitates massing combat power at the decisive point of the battle by allowing smaller forces to defend restrictive terrain elsewhere.

Terrain, reinforced by barriers, influences enemy movements and tempo for exploitation. It degrades enemy maneuver and can fix him for effective attack in a location decided by the defending force commander. Terrain also provides cover and concealment.

All defenses conduct security operations. The defender has the advantage of terrain, but initially lacks the initiative.

Defenders accept risk in some areas in order to mass combat power elsewhere by assigning to units missions that have economy of force characteristics. Security operations prevent surprise and reduce the risk of bypass or encirclement of the main effort.

Defense in depth provides flexibility and dispersion while reducing risk. Deployment in depth provides time to assess and react to changes on the

battlefield once the battle begins. Defense in depth facilitates—

- Shifting of forces.
- Counterattacks.
- Using EAs, barriers, and improved positions to canalize, delay, or attrit in depth.
- Attacking the enemy's flanks and rear.
- Deception planning.

Mutual support integrates the fires of the total force. It allows a dispersed force but focuses combat power.

The AASLT division is a tactically mobile force with respect to terrain. After AASLT insertion, it lacks maneuver speed potential unless it fights an enemy with equal or less maneuver capability.

The division can defend successfully in close terrain against mechanized or motorized forces when properly augmented with antiarmor or mechanized forces. The division may be part of a corps defense to act as an anchor, allowing other divisions to concentrate for a counterattack or envelopment.

As a pure AASLT division, the division can conduct an area defense in appropriate terrain to block dismounted enemy movements. It can also defend against an enemy infantry armored force which has small organic tank units.

An armored brigade in support of a light division constitutes a light-armored operation. (See also Chapter 7.) Of the light divisions, only the AASLT division conducts mobile defense operations without augmentation.

Normally, the best technique for halting an enemy armored attack is to use a combination of artillery, attack helicopters, USAF aircraft, integrated obstacle plans, and the division's medium and heavy antitank (AT) systems.

THE AIR ASSAULT DIVISION IN THE DEFENSE

In most cases, the AASLT division defends by conducting cross-FLOT offensive operations to spoil enemy attacks or to counterattack the depth of threatening penetrations. In some cases, the division executes missions in the corps covering force area (CFA) or main battle area (MBA) in accordance with the defensive framework. In such circumstances, careful METT-T evaluation by the division commander and his staff develops a basis on which to allocate forces to each of the five portions of the defensive framework. Even in the corps CFA or MBA, the division organizes to infuse its defense with a strong offensive posture, maximizing opportunities for raids and air assaults.

The aviation brigade conducts most deep operations, which may include infantry teams or TFs for combined-arms (CA) raids. The aviation brigade conducts raids to identify, slow, disrupt, and/or delay enemy forces entering the division sector.

DIVARTY fires conduct SEAD, as necessary, in support of deep operations missions. The division coordinates with the corps to conduct most deep operations missions in the event the aviation brigade forms the division's covering force or if the division as a whole assumes the corps' covering force role.

Security operations prevent surprise and allow time for further defensive preparations in the MBA. They extend to the main body's front, flanks, and rear.

If the division creates a covering force, either the aviation brigade or a maneuver brigade fills this role. The air cavalry squadron often screens along a critical avenue of approach or exposed flank. When used, the division's cover force exists to slow the enemy advance, force premature deployment, clearly locate the foe's main thrust, and destroy his artillery and air defenses to desynchronize his attack.

In the MBA, maneuver brigades defend in sector to defeat the opposition's attack, destroy his forces, and create conditions for a decisive counterattack. Depending on allocation of forces for other tasks, two brigades generally fight in the MBA, with one as the main effort. An OPCON armored contingent could contribute greatly to this part of the battlefield. Although assault and attack aviation units fight in the MBA, the aviation brigade rarely controls the action in any part of this area.

Rear operations demand forces in the defense based on a METT-T analysis. The division cannot discount the dangers of the enemy conducting deep

operations for raiding and securing key terrain. Immediate, violent counterattacks address these threats as soon as they appear.

With the need for rapid response in mind, the division allocates an assault aviation unit to the rear operations TF, likely from the command aviation battalion. Doing so ensures the division has immediate access to artillery and attack aviation in a defined command or support relationship.

The division retains up to one brigade in reserve. The reserve brigade reinforces the MBA effort or air assaults to secure key terrain, thereby blocking the withdrawal of defeated enemy forces or the introduction of reinforcements.

If the defensive sector is large, the enemy strong, and much of the division is holding key terrain, the division might designate as little as an understrength battalion TF as a formal reserve. This reflects the understanding that, as in all AASLT operations, every uncommitted force represents a potential reserve.

Unlike the offense, the defensive framework alters significantly, based principally on the mission—to counterattack as the corps reserve, to fight in the CFA, or to fight in the MBA. No "generic" defensive framework characterizes the AASLT division in the defense.

In an ideal defense, the AASLT division seeks and exploits every opportunity for offensive action. As much as possible, the division plans and executes raids and air assaults in the rear of advancing hostile formations, thereby dividing the enemy's attention and degrading the integration of his combat power. The AASLT division continues to look, think, and fight deep as much as possible during all operations unless higher headquarters directs otherwise.

AREA DEFENSE

Terrain Retention

In the following example, the corps defends with one AASLT division and one armored division abreast and an armored cavalry regiment (ACR) covering force. It has a separate mechanized brigade in reserve. The corps defends against part of an enemy corps.

The enemy corps is a secondary effort. It will probably attack in the friendly corps sector with four infantry divisions, one mechanized infantry brigade, and one armored regiment.

Terrain in the corps sector is restrictive, with narrow valleys and many small built-up areas. Terrain restricts vehicle traffic mostly to improved roads and a few wide areas in valleys.

The terrain generally allows more maneuver in the armored division's defensive sector. The infantry division's defensive sector is in the northern half of the corps sector (Figure 4-1).

The AASLT division defends in sector in an area dominated by high rugged hills and a small built-up area. One improved highway runs the length of the sector.

The corps commander intends to anchor his defense with infantry on his left defending in restrictive terrain. The corps armored division defends in depth on the right.

The ACR is the corps covering force. The corps reserve (a separate armored brigade) positions itself behind the armored division.

The ACR moves to a corps assembly area after the covering force fight. The corps commander wants to defeat the enemy's attack forward of PL DOG. The separate mechanized brigade will then counterattack to destroy remaining enemy formations in zone and to restore the FEBA. Corps deep operations initially focus on distant, uncommitted enemy forces, targeting any mechanized or armored units moving forward to exploit penetrations.

Since defense in sector tends to be stationary, it is vulnerable. Deception and OPSEC are critical in preventing the enemy from accurately templating friendly defensive positions and intentions. Using dummy positions and manning alternate or supplementary positions will be necessary to confuse enemy targeting.

Defending forces require security, counterreconnaissance, and smoke operations to deny enemy direct observation. As time permits, units take additional measures to protect themselves and increase their weapons effectiveness.

A stationary defense does not directly challenge the enemy's initiative until decisive combat begins.

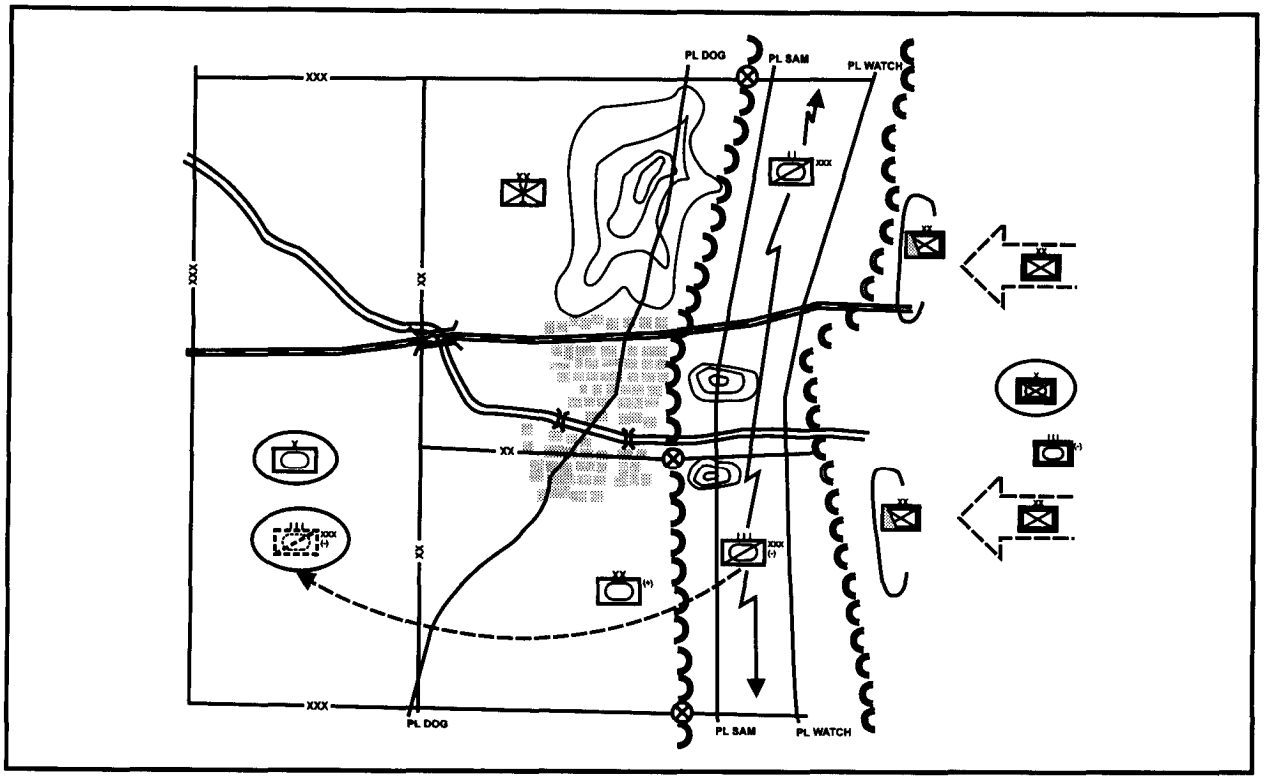


Figure 4–1. The corps situation

Normally it occurs only when the likelihood exists of achieving a compelling advantage over the enemy.

Maneuver

The AASLT division defends in sector with three brigades on line along PL DOG (Figure 4-2). The division commander retains one infantry battalion as division reserve.

The main effort is in the south where potential for an enemy mechanized force exploitation exists. The enemy will probably try to infiltrate around the built-up areas. He will also probably conduct a supporting attack in the north.

Figure 4-3 depicts the division's task organization. This division is the corps' supporting effort; therefore, its share of corps supporting units is small.

Deep Operations. The division must initially find and target enemy artillery units—the greatest threat to AASLT units' freedom of maneuver. Target type defines the proactive counterfire operation as a deep operation, not distance from the FLOT or relative location with respect to a phase line.

Deep operations can alter the combat power ratio for current and subsequent close operations. They destroy artillery, attrit infantry formations, and disrupt the enemy's attempt to mass, attacking enemy division echelons in depth as they approach the FEBA.

Brigades engage leading enemy regiments in the division's close fight. Follow-on enemy regiments and reserves are division deep targets. The corps attacks other enemy divisions as the enemy moves forward.

The corps and the division enter an agreement to define close and deep operations areas to delineate deep operations responsibilities for ground maneuver targets. Phase lines create points where the corps and division accomplish handover coordination for responsibilities to attack approaching enemy echelons. Phase lines do not create separate areas where the corps or division conduct uncoordinated concepts of operations. The corps and division coordinate the maneuver concept of operations, intent, and the desired results of deep operations to ensure mutual support.

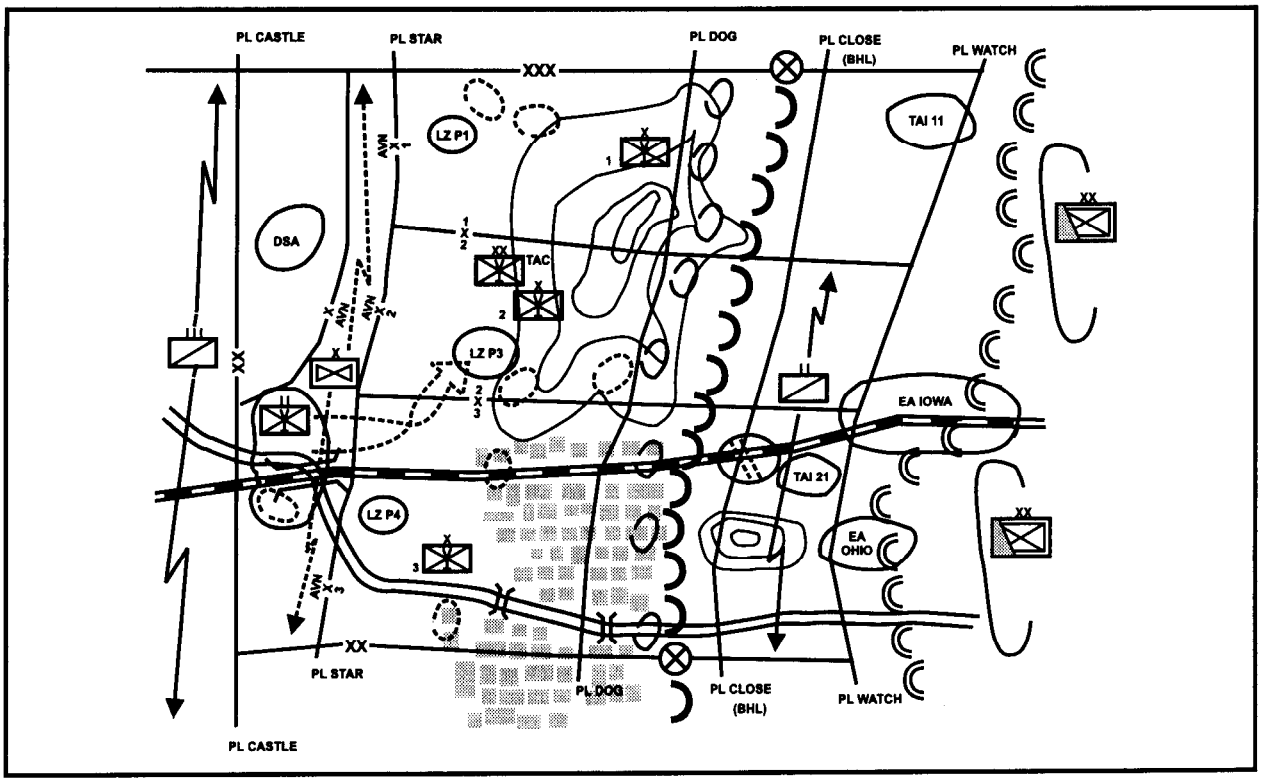


Figure 4–2. Maneuver: concept of operations

The senior commander specifies his intent for deep operations in the OPORD. The senior commander identifies minimum conditions which must be met before air assault operations. The subordinate commander supports this intent and coordinates his concept, intent, and desired effects with the senior commander in the backbrief or rehearsal. Coordination of deep-operations handover and synchronization of intent are especially important for intelligence collection and targeting.

The division commander reserves proactive counterfire for the deep operation. He identifies enemy artillery units as a specified target type. DIVARTY targets and attacks enemy artillery units anywhere on the battlefield, regardless of the specified phase line for moving enemy infantry or armored units.

The primary division deep weapons systems are tube artillery, fixed-wing air interdiction (AI), attack helicopters, and MLRS (if available). These are division assets or corps-provided support.

Close Operations. The AASLT division conducts close defensive operations with mutually supporting positions and integrated obstacles constructed in depth. Defensive operations must keep enemy infantry formations and movements in place. The division can then engage and destroy them with a combination of massed artillery, mortar, attack helicopters, USAF aircraft, and/or AT weapons.

Attack helicopters and CAS counter enemy armored forces, especially when massed formations deploy to exploit success. Enemy tanks principally act as infantry fire support because of limited maneuver space.

Brigades position tube-launched, optically tracked, wire-guided (TOW) missiles and DRAGON weapons systems to destroy tanks supporting infantry attacks. Because the enemy commits tank and mechanized units to exploit penetrations, the defending force plans antiarmor fires in depth.

Area defense, focused on terrain retention, relies on using terrain, obstacles, and massed fires to stop and destroy an attacking enemy. Fires in depth disrupt the enemy's attack plan, but the defender achieves success by overwhelming massed fires at the FLOT.

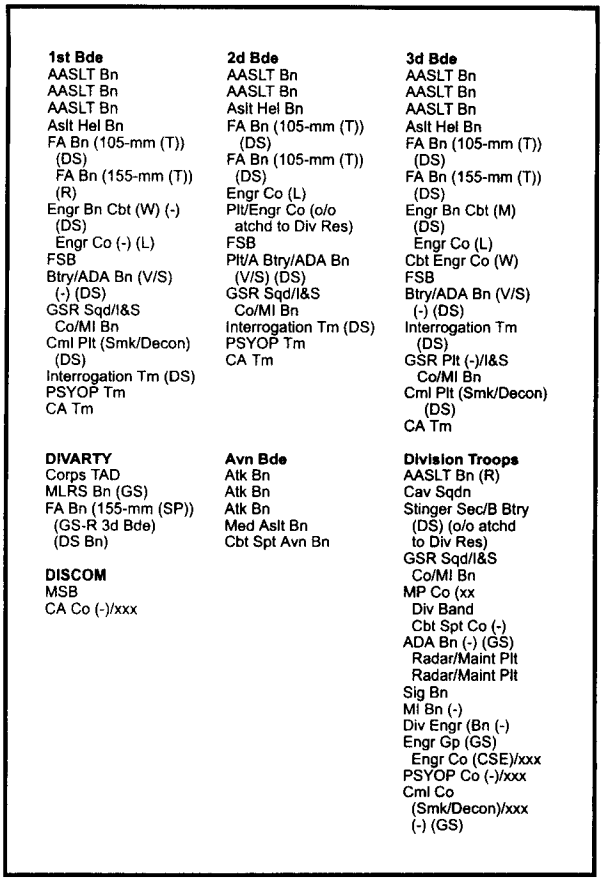


Figure 4–3. Division task organization

If, because of the terrain, the AASLT division cannot use its helicopters to move faster than can the attacking enemy, initial defense at the FLOT is crucial. Thorough reconnaissance to situate the defense is critical.

The division, brigades, and battalions must reposition units to alternate or supplementary positions before the enemy's main body arrives or before preparation fires. Deep-intelligence operations results trigger repositioning of forces. A decision support template (DST) assists the decision-making process.

The corps and division consider this type of defense high risk since it orients on retaining terrain. The corps and division can only minimize risk by ensuring the maximum possible depth for defense in front of retained terrain.

All friendly units must mass fires in coordination with the proper positioning of obstacles to create engagement areas which will hinder the enemy's momentum and initiative. Effective obstacle emplacement causes the enemy to mass, thereby increasing the effectiveness of fires.

Rear Operations. The division reconnaissance squadron initially screens forward of the LC behind PL WATCH. On withdrawal, it screens behind committed brigades to locate infiltrating and penetrating enemy units. On order, it defends to block or contain the enemy and directs the attack by fires to destroy enemy forces.

Division CS and CSS units locate in mutually supporting base clusters. Each must establish credible defenses against infiltrating enemy infantry units. Support units locate away from routes suitable for enemy mechanized or armored exploitation. Combat service support elements the division cannot adequately protect locate in the corps rear area.

Security Operations. The corps ACR conducts covering force operations forward of PL WATCH until withdrawn. Initially, the division reconnaissance squadron screens forward of the main effort behind PL WATCH. The division tasks the northern brigade to screen forward along PL WATCH.

The mission is to screen because the AASLT division cannot deploy a suitable covering force. This screening force lacks sufficient size, strength, and ground maneuver capability to prevent its being decisively engaged or bypassed by large infantry forces. Therefore, it establishes a screen first for early warning and second for attrition. Units plan for artillery fires and CAS to attrit, disrupt tempo, and support the covering forces' retrograde operation.

The northern brigade defends in rough terrain where dismounted movement is the norm. The division directs the brigade to conduct its own screen.

The division reconnaissance squadron conducts its screen in the center and south where the terrain, though rough, allows more movement by large units and vehicles. The screen mission includes counterreconnaissance to detect and destroy enemy reconnaissance units within the squadron's capabilities.

The division cavalry squadron concentrates its effort forward of the division's main effort—the 3d Brigade. This sector has the most favorable enemy avenues of approach in the division sector. If employed against the division, the enemy armored

attack will probably occur in the 3d Brigade area when it attempts to bypass the city to the north.

The battle handover line (BHL) for the screening force is PL CLOSE. The defending brigades send security elements as far out as PL CLOSE. They mark routes and provide fire support for the retrograde. The BHL partially defines the division's forward security area.

The enemy will probably attempt infiltrations in support of every attack to bypass or penetrate the main defenses and to attack friendly reserves, C^2, and CSS elements. Friendly security operations include combinations of OPs, patrols, and surveillance systems. Maneuver brigades secure the division flanks in sector.

After withdrawing from the screening mission, the division cavalry squadron moves to the division rear and conducts a screen behind the brigades. The mission is to discover, contain or block, and destroy enemy infiltrations or penetrations into the division rear area.

In this scenario, the enemy infiltrates and bypasses resistance in every attack. The division must conduct reconnaissance and security operations in the division rear area.

If the division gives control of the cavalry squadron to the aviation brigade, it should also give them the mission to screen behind the defending brigades. The division's intent is to employ attack helicopters in support of the brigades and the deep operation.

Reserve Operations. It is difficult for the AASLT division to maintain a large reserve in this mission. The division reserve receives an assault helicopter battalion for dedicated movement capability to react in a timely manner. The division also has one infantry battalion in reserve as well as dedicated lift assets.

The division carefully plans movement of reserves because of its vulnerability to indirect fires and air attack while moving. Selected reinforcement routes provide cover and concealment while rear area R&S operations decrease the probability of enemy stay-behind or special forces observing reserve locations. Electronic warfare, or fires directed at enemy C^2 or fire control headquarters, might degrade the enemy's ability to attack the reserve. Finally, reserve deployment and employment might require artillery and smoke fires.

Intelligence

Military intelligence assets are task-organized into three company teams, one in direct support to each AASLT brigade. Each company team includes SIGINT, HUMINT, and GSR or REMBASS sensor assets. METT-T factors determine the final mix.

In the following example, one platoon-size team supports the secondary-effort brigade's company team; the company (-) supports the division's main-effort brigade's company team. One GSR squad is attached to each brigade.

The fourth GSR squad is attached to the cavalry squadron. It initially supports the cavalry screening force, then the rear area screen. The GSRs orient on supporting brigade operations by detecting enemy infantry infiltrations.

The LRSD is deployed to observe NAIs, TAIs, or DPs for targeting purposes, Based on the G3's guidance, the division G2 plans and prepares intelligence-collection tasks and guidance.

The G3 deploys LRSTs with the cavalry screening force. The teams also infiltrate to assigned dispersal areas and select positions that provide long-range observation of assigned areas. The remainder of the I&S company locates at the division EPW collection point.

The division G2 coordinates intelligence handoff for enemy units from corps to division and division to brigade. The collection plan establishes priorities for friendly units to observe and monitor enemy units, NAIs, and TAIs.

The division G2 at the TAC CP tracks enemy units into brigade AOs for targeting and situation development. In this example, in order of priority, priority intelligence collection requirements are—

- Locations and movements of enemy artillery units.
- Locations and movements of follow-on divisions.
- Locations and movements of enemy armored or mechanized forces.
- Locations of enemy division-level C^2 facilities.

Fire Support

The organization of artillery, EW, and TACAIR support enhances each's capability to provide

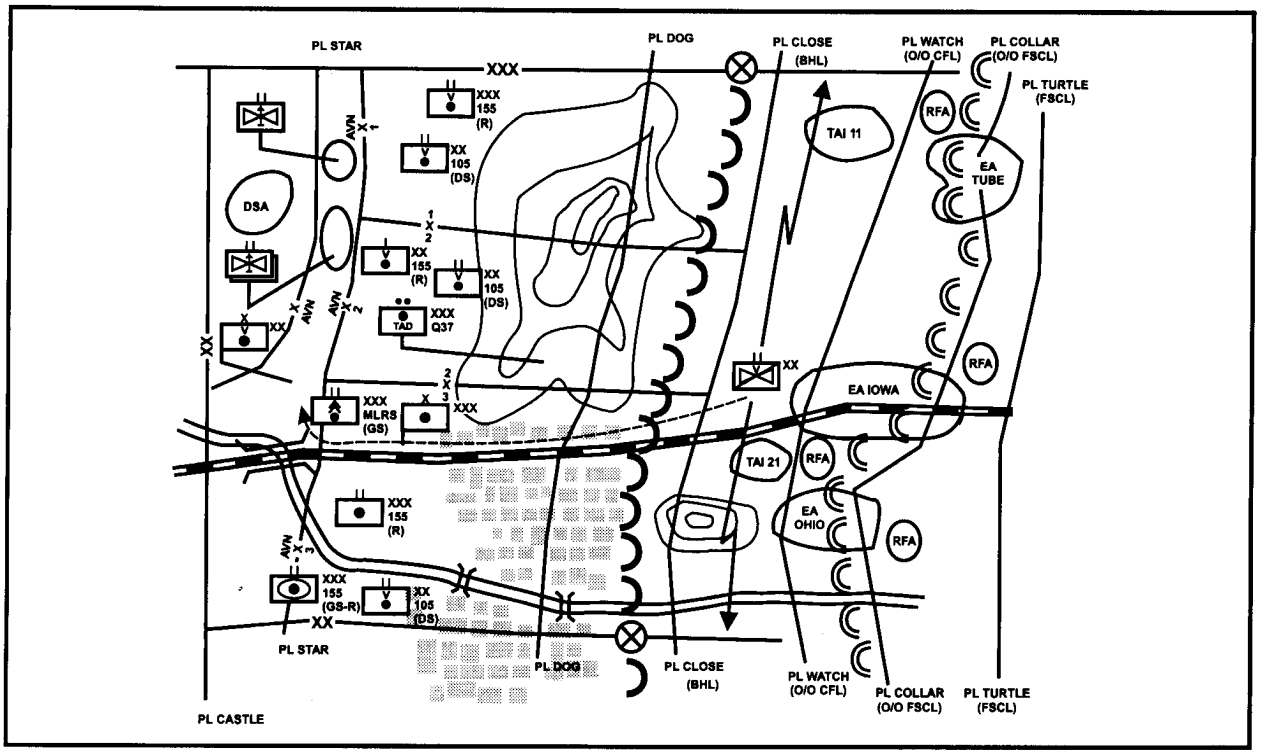


Figure 4–4. The defense in sector: fire support

massed fire support to defeat enemy attacks in both the main and supporting efforts areas. The division weights artillery support to the main effort. The corps positions its MLRS and 155-millimeter, SP battalions to support the main effort.

The division establishes PL WATCH as a coordinated fire line (CFL). The division cavalry squadron is forward of the division's main body.

After the division cavalry squadron withdraws, PL CLOSE becomes the division CFL. The corps fire support coordination line (FSCL) then moves to PL COLLAR from PL TURTLE (Figure 4-4).

The division establishes EA IOWA as the best location for a JAAT or CAS attack on enemy armored forces before they reach brigade AOs. The division establishes, from terrain analysis, that TAI 11 and TAI 21 are likely areas for enemy infantry units to occupy or move through to their LD. Engagement area OHIO is a likely artillery firing area.

The IPB indicates specific terrain the enemy might use but intelligence-collection operations must confirm or deny enemy movements before or early in the battle. Targeting handoff from corps to division must clearly indicate enemy lines of operation two echelons down.

The LRSD is the best means to target infantry units moving through rough terrain with cover and concealment. The correct use of sensors augments LRSD efforts. The G3 establishes RFAs around LRSDs.

Mobility and Survivability

The division specifies obstacle zones to influence enemy tempo by turning, blocking, disrupting, or fixing enemy formations as part of maneuver. The commander specifies any obstacle-restricted areas. Brigade commanders plan obstacle belts to support the division commander's concept.

Locations of obstacle zones should allow maximum flexibility to subordinate commanders and should facilitate future operations. Obstacles forward of the BHL facilitate the battle handover.

In this example, engineers task-organize with armored-light engineer mixes in the 1st Brigade (north) sector and in the 3d Brigade (south) sector

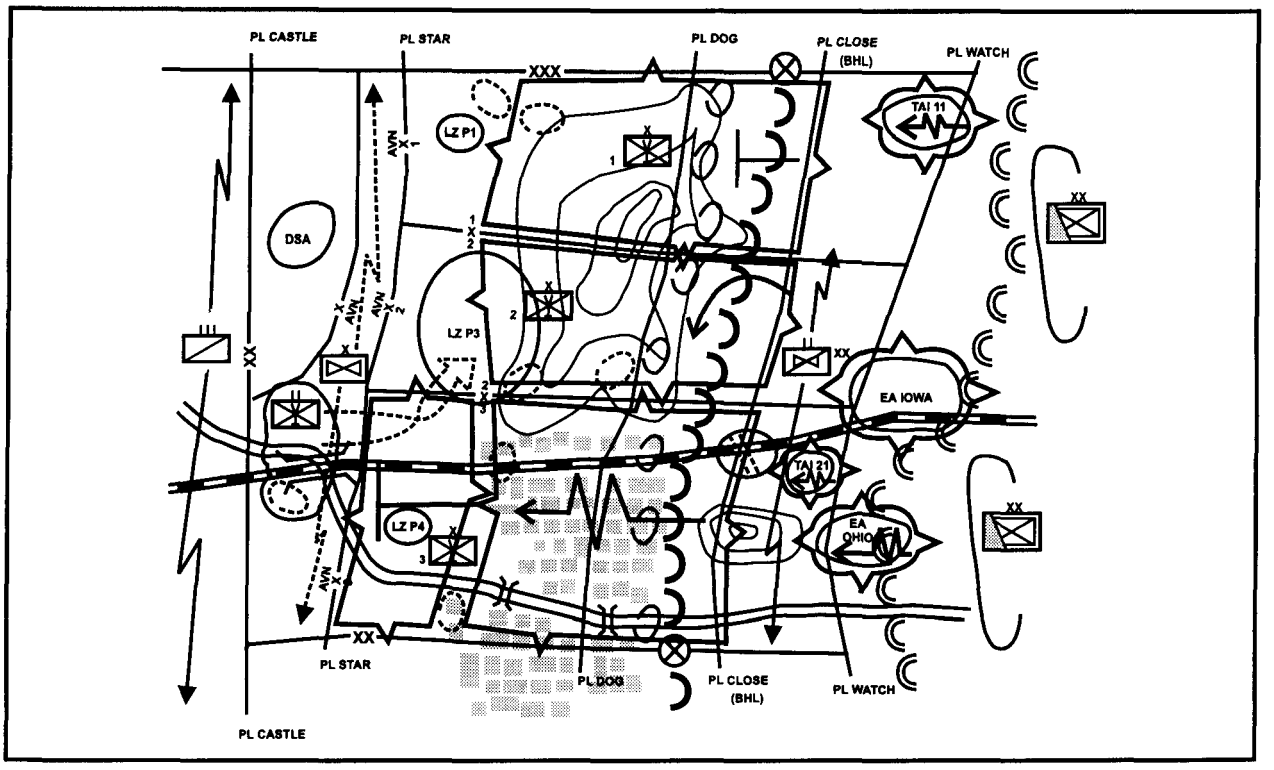


Figure 4–5. Defense in sector: mobility and survivability

(Figure 4-5). The 3d Brigade has one reinforced corps wheeled (W) engineer battalion and a light engineer company.

As the main effort, the 3d Brigade has the most engineer work to execute. It receives priority of division engineer support from the CS equipment company and the one combined engineer battalion.

The 1st Brigade, as a supporting effort, receives one corps engineer wheeled battalion and an AASLT engineer company (-) in support. The 2d Brigade, in the center, has an AASLT engineer company plus one AASLT platoon from the engineer company with the 1st Brigade. This platoon has an on-order mission for attachment to the division reserve AASLT battalion.

Priority of effort in the division's close operation is to survivability, then countermobility, then mobility. Behind the division engineer work line (EWL) to the division rear the priority of effort is to mobility (to facilitate movement), then survivability.

Priority of support forward of PL STAR is to the 3d, 1st, and 2d brigades, then to DIVARTY. Priority of support behind PL STAR is to the aviation brigade, DISCOM, then the reserve.

The division commander designates turn, block, and fix obstacle zones for his brigade commanders. These areas graphically convey the division commander's intent for tempo and maneuver.

The brigades establish turn, block, fix, or disrupt obstacles as needed. The total effect of their zones must satisfy the division commander's intent for the obstacle area.

NOTE: The corps or division did not identify any disrupt obstacle areas in this scenario.

The division directs placement of fixing areas at the trailing edge of EAs or TAIs to hold enemy forces and increase their vulnerability to deep attack. The division specifies a turning area and reserve target for the one hard-surface road or armored approach.

The division commander wants to influence the enemy to move into the built-up area and away from the economy of force brigade. The division specifies one large blocking area along PL DOG to stop the enemy short.

The division also establishes a second defense line in the 1st and 3d Brigade areas forward of PL STAR. These must contain enemy penetrations. The division then specifies obstacle-restricted areas (ORAs) to cover planned LZs for the division reserve.

Situational obstacles include ground- and air-emplaced FASCAM. The division and brigades use these obstacles (if they have release authority or gain release approval from the appropriate commander) to react to unexpected enemy initiatives as the battle unfolds. If the corps commander delegates release of these obstacles, he can direct that the release authority not go below a certain level of command.

The DST reflects situational obstacles. The G3, engineer, and assistant fire support coordinator (AFSCOORD) develop FASCAM Class V requirements during COA war-gaming. If requirements exceed the established controlled supply rate (CSR), the division must ask the corps to change the CSR. If the corps disapproves or the division fails to ask, the division will not have the required amount of munitions.

Obstacle zones to the rear of PL CASTLE (the EWL) are for subsequent positions to contain enemy tactical successes. The two areas between PL DOG and PL STAR provide defense in depth. The division plans these areas to support the division-level maneuver and tempo concept for both friendly and enemy units.

Air Defense

The B Battery (-) supports the 3d Brigade, which is the division's main effort. One of its Stinger sections is initially in DS to the cavalry screening force and, on order, becomes attached to the division reserve battalion.

The 1st Brigade, as a supporting effort, receives ADA support from Battery A (-) in a DS role. One task-organized platoon consisting of an Avenger/Stinger section from A Battery is in DS to the 2d Brigade. One Stinger section from A Battery is OPCON to DIVARTY.

Avenger systems and the majority of the Stinger sections locate well forward in the brigade areas. Stingers counter enemy CAS and attack helicopter operations at the FLOT.

Stinger teams provide protection to critical assets such as reserve forces, artillery radars, supporting MLRS, the DSA, or attack helicopter staging areas deep in the division's rear area. They lack supporting organic ADA support and, therefore, must rely on overlapping incidental corps ADA coverage, passive AD measures, and counter air operations for protection against enemy air attack threats.

Combat Service Support

The DISCOM headquarters, MSB, and corps support units locate in the DSA. Units may cluster tightly when the enemy poses a significant special operations or infiltration threat; they normally disperse widely when the threat potential is lower. Supply distribution is throughput when possible.

Corps support units, such as a mobile army surgical hospital (MASH) or a corps support battalion, may locate in the division's rear area. They provide area support to the division and other corps units in division AOs.

The FSBs locate in brigade rear areas near specified MSRs. (See Figure 4-6.) In the defense, FSBs stockpile large quantities of Classes I, IV (Barrier Material), V, and VII supplies on pallets or trailers in brigade support areas (BSAs). Battalions stockpile supplies on the ground in their areas.

Consumption of small arms munitions in an area defense will be high. Resupply by vehicle will be difficult during the fight because of the terrain, limited road networks, and enemy fire. Units that stockpile supplies assume the risk of losing them if the unit is overrun by the enemy.

Air assault battalions on the ground do not have the transportation assets to move excessive stockpiles of supplies. Resupply by air, using prepackaged push packages, to unit supply points (SUPPTs) is the norm.

Landing zones serve as SUPPTs, patient collection points, and ambulance exchange points for MEDEVAC. They should be close to road networks so resupply and evacuation can continue despite the weather or enemy actions. This type of operation requires prior aeromedical evacuation planning and coordination.

The MSB and FSB maintenance teams go forward to brigade and battalion AOs to repair

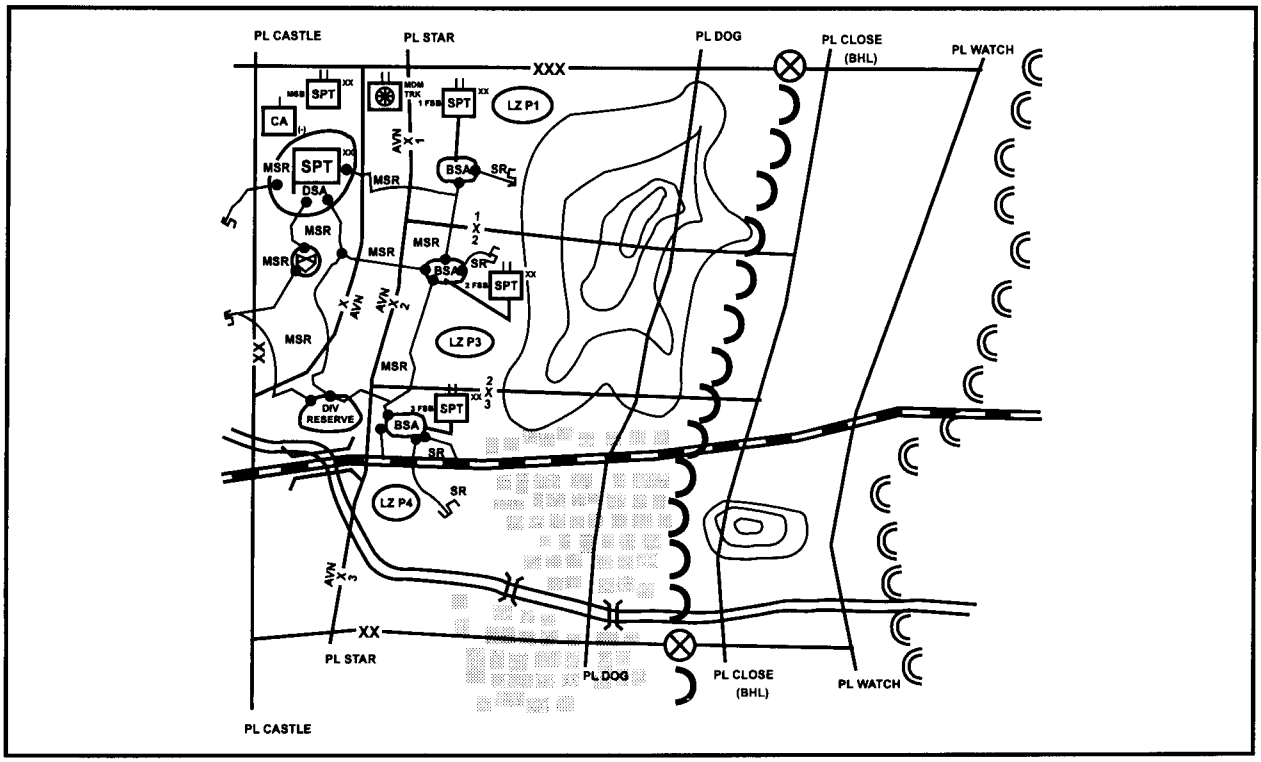


Figure 4–6. Defense in sector: combat service support

weapons systems and vehicles that can be quickly returned to operation. Evacuating equipment to the MSB in the division rear area or directly to the corps occurs expeditiously for equipment that requires extensive repairs. When possible, units receive maintenance floats to maintain maximum combat power. Units recover and move nonrepairable weapons and vehicles to maintenance collection points in the BSAs.

The rear CP establishes and monitors road movement in the division rear area. When the terrain offers few roads, the DTO has to consider the repair-forward concept and air resupply when he develops the plan. The DTO tightly controls road use to support the division's concept of operations. Although strict, the plan allows for vehicle infiltrations for C^2, signal, medical, and engineer purposes. Container delivery system techniques using tactical airlift (C-130 aircraft) or medium-lift helicopter support allow for steady CSS flow.

The division G4 develops a road network to support CSS operations. He then coordinates with the G3 for tactical movement route requirements.

The G4 develops a traffic circulation and control plan and a sustainment construction list for roads, helipads, and airfields. The G3 approves the plan and the G4 coordinates it with the DISCOM, PM, and supporting corps engineers. Necessary helipad and road upgrade, repair, or construction begin as early as possible.

Nuclear, Biological, and Chemical

In this example, the corps attaches one corps smoke-decontamination chemical company to the AASLT division for the defense. The enemy possesses artillery and rocket-delivered chemical munitions. Therefore, decontamination is the NBC priority.

Division units establish alternate sites to support decontamination operations if the enemy achieves contamination success in the division's main effort area or DSA. The dual-purpose platoon prepares the alternate sites as platoon sites for deliberate decontamination by the dual-purpose platoon in the division rear area.

One chemical decontamination squad operates each alternate site to support hasty decontamination operations. Infantry units conduct personal and hasty decontamination operations, undergoing deliberate decontamination when time and situation permit.

Units that have medical treatment facilities support perform patient decontamination. Medical personnel supervise patient decontamination procedures while providing care to casualties.

One chemical platoon provides smoke support in a DS role to the main effort. The brigade commander develops and coordinates smoke support requirements with division and adjacent brigade commanders. Class V smoke pots meet requirements for other brigades, DISCOM, aviation elements, artillery, deception, and OPSEC. Units can also use artillery or mortar-delivered smoke munitions. The smoke plan should consider smoke operations for OPSEC reasons.

Battle Command

The division TAC CP locates forward in the MBA. Its location should be near the brigades' rear boundary and be masked by terrain for OPSEC and deception.

The TAC CP will not always locate with the main effort if the enemy has a significant SIGINT capability. From a position between the main effort and the supporting effort brigades, the TAC CP can control and support the main fight.

The main CP locates near the aviation brigade (the alternate division CP) and reserve, which enhances security against enemy infiltrations. From there, it can adequately support synchronization, concurrent operations activities, and deny enemy SIGINT collection. It is also beyond the range of most enemy artillery. The rear CP collocates with the DISCOM CP in the DSA.

MOBILE DEFENSE

Defending to Defeat Enemy Forces

The AASLT division has the ability to defend in depth to defeat enemy forces. This differs from terrain retention in that the focus is on attriting the enemy force. The defenders can use terrain within the sector to obtain an advantage, but terrain retention is not the defense goal.

As the defender, the AASLT division retains some initiative because it does not become decisively engaged on a specified line. It accepts decisive combat when and where it will support the destruction or defeat of the enemy force.

The division uses terrain, reinforced by prepared positions and obstacles in depth, to canalize the bulk of enemy combat, CS, and CSS assets into EAs. Ground, artillery, and aerial fires initially destroy the enemy throughout the depth of his avenues of approach. Direct fires and obstacles fix enemy forces for destruction by artillery, mortar, attack helicopter, and USAF aircraft fires.

Decisive engagement between infantry forces is not the desired method for defeating the enemy. Friendly units become decisively engaged only when needed to influence enemy movements.

The AASLT division can defend against an armored force, an infantry force, or a combination of forces. The AASLT division defends in depth from prepared positions.

Against armored units, prepared positions orient on the principal avenues of approach. Rough terrain canalizes heavy forces on the roads, precluding enemy bypass or envelopment of defensive positions. Alternate and supplementary prepared positions compensate for different enemy COAs or unforeseen penetrations. Assault helicopters give the defending division a mobility advantage when these assets can be employed.

The AASLT division conducts a mobile defense as a division operation by positioning approximately one brigade forward as the fixing force. It then uses the remainder of its combat power as the striking force.

The division can also participate in a corps or JTF mobile defense in one of three ways:

1. The AASLT division can be forward in an area defense.
2. The AASLT division can be the corps or JTF reserve with a mission to air assault a force on a counterattack mission.

3. The AASLT division can be the corm or JTF strike force (they would best do this with an armored or mechanized force).

Properly using NAIs and decision points (DPs) make possible long lead times for repositioning forces before enemy contact. Once units come in contact, repositioning units becomes difficult and risky. Repositioning is feasible against armored forces only between prepared positions, using helicopters. This requires a large engineer force and lengthy preparation time and places the helicopters at higher risk levels. Therefore, AASLT units usually disperse to numerous prepared positions and seldom move after contact. Because helicopters may not be able to reposition these units, they may find that enemy forces bypass or isolate defending forces.

Against enemy infantry forces, AASLT forces may prepare strong forward defenses with reserves in a second line or in blocking positions. This is a classic linear defense tending toward heavy losses or disaster if ruptured or penetrated.

If the enemy infantry force significantly outnumbers the defender, the AASLT division may adopt a defense in depth oriented on destruction of the enemy force. Defense in depth is also effective when tanks support a larger enemy infantry.

At times, defenders may establish blocking positions with smaller defensive positions. Security operations, with indirect or aerial fires support, cover all gaps.

Units plan for but minimize movement between positions to prevent subordinate units from being overrun and destroyed. Planning for these moves includes coordination and synchronization of counterfires, disengagement, and movement fire plans.

Repositioning supports deception plans and shapes battlefield engagement conditions. The feasibility and number of prepared subsequent positions depend on time available, engineer assets, the maneuver headquarters' ability to plan and designate positions in depth, and the infantry division's movement capacity or ability. Helicopters, tanks, or tracks move troops when possible.

Defending units usually allow the enemy to move along designated routes from one EA to another. Air and artillery fires are the primary means of destruction. Division and brigades emphasize massed fires such as time on target (TOT) and JAAT missions.

The AASLT division normally conducts this defense in terrain which affords infantry forces cover, concealment, and protection but which also has open maneuver space for armored forces. Terrain and obstacles force the enemy into EAs.

Prepared defensive positions around EAs fix enemy forces so air and artillery fires can effectively engage them. As surviving enemy forces move into subsequent EAs, the division reengages them with fire.

Units select final blocking positions just forward of brigade rear boundaries, designating some key blocking positions as strongpoints. If necessary, the division may reorganize selected engineer units as infantry for additional strongpoints to strengthen the defense.

Once engineer units receive the mission to reorganize as infantry, they will have difficulty in reversing the process during combat operations. They may have to move to the division rear area to reconstitute as an engineer unit.

The division commander envisions a tempo and overall conduct for the battle through the depth of the battlefield. He specifies large general areas as blocking positions for the brigades.

Division-specified general areas do not require brigades to physically locate all forces in battle positions. But, they must position adequate forces in battle positions to accomplish the commander's stated intent for maneuver.

Operations overlays reflect general fortification symbols to establish a primary orientation for the defense and to graphically establish engineer work priorities. The division may specify strongpoints with or without a minimum unit size when deemed critical to division operations.

The brigades still plan battles in their sectors between lateral boundaries and designated division engagements. General blocking positions for brigades are not meant to be restrictive. They express the division commander's vision for tempo and maneuver.

Blocking positions also synchronize the brigades for division fights and facilitate planning of air- and

ground-delivered fires. Fires are critical; they are the primary method of destroying the enemy.

The division plans EAs to focus on timed and massed artillery, aviation, and USAF fires. The division commands the brigades but does not micromanage their plans or the battalion's operations.

The division does control the brigades so they conform with the division's maneuver, tempo, and synchronization. This may appear to be restrictive to the brigades, but it is necessary to gain benefits from synchronization and synergy.

The real danger lies in a division plan which fixates on one enemy COA. Intelligence must confirm or deny all possible enemy COAs.

The division plan focuses on the most probable enemy COA, then determines easy transitions to other possible COAs. Division G2 personnel play the uncooperative enemy during COA development and war-gaming.

Mobile defense orients on destroying the enemy by using a combination of fire, maneuver, offense, defense, and delay. The defender places minimum forces forward and creates powerful strike forces that catch the enemy as he attempts to overcome defense forces.

The defender delays the enemy, causing him to focus on the wrong objective, overextending his resources, and exposing his flanks. This leads the enemy into a vulnerable posture in terrain that diminishes his ability to defend against a larger, mobile strike force's counterattack.

The mobile defense sets up large-scale counterattacks that allow the defender to do four things: destroy enemy forces, gain and retain the initiative, transition to the offense, and move into exploitation and pursuit operations.

In the following example, a neighboring hostile nation is threatening to invade a developing country friendly to the US. The invasion appears to be imminent.

Diplomatic efforts to resolve a long-term border dispute are at a stalemate. The hostile nation has already begun mobilization and continues to escalate armed forces along the adjoining border.

The threatened country formally requested US military intervention under the provision of a long-standing treaty agreement. In response to the country's request and the potential adverse consequences of the hostile country becoming the regional dominant power, The National Command Authority (NCA) directs the deployment of a JTF into the crisis area as a show of force.

The JTF's maneuver forces consist of an AASLT division with an attached armored brigade. The AASLT division, executing its emergency deployment sequence, begins air deployment into the host nation within hours of notification.

The attached armored brigade closes into the division lodgment area within days of notification, using strategic sea and air lift capabilities. The lodgment is near the only airport capable of handling C-141 and C-5A aircraft within the disputed area. Forces currently are preparing to move forward from the lodgment area to establish defensive positions in support of HN forces.

Intercepted high-level message traffic reveals that the hostile country is planning to begin its invasion after mobilization. The invasion force's mission is to rapidly push as far forward into the disputed area as possible and secure selected objectives.

On securing objectives, the government intends to appeal quickly to the United Nations (UN) for a cease-fire to negotiate a favorable border settlement. The hostile government is gambling that this action will result in obtaining new territory rich in natural resources, demonstrate its country's defiance of US support, and establish it as the dominant regional power.

The hostile country has significantly increased its offensive capability over the host nation in the past four years. Its ground forces comprise four active infantry divisions, a border defense force, and one separate tank regiment that recently received an upgrade of T-72 tanks.

Each infantry division includes two infantry regiments and one motorized rifle regiment (MRR) with supporting artillery at both regiment and division levels. A small, aging fleet of aircraft (fixed wing) limit the air force, at best, and should not present a significant obstacle to deployed JTF forces.

However, hostile forces have enough helicopters to lift two battalion-size units in a single lift.

The host nation has three infantry divisions and an internal border security force. Two of the three divisions are active. The third, an auxiliary division, receives reserve personnel manning during national emergencies.

Border security forces have limited quantities of armored vehicles. The country's air force is comparable to that of the hostile air force.

Anticipating an invasion, the host nation has deployed both of its active divisions along the threatened border to reinforce border security forces. Increasing incidents of border violations have increasingly resulted in engagements. These violations appear to have been probing missions to identify force density and unit locations along potential invasion routes.

Terrain between the two countries is mountainous. One major valley system has natural mobility corridors that support motorized vehicles. Vegetation varies from sparse in low, open areas to double- and triple-canopied forests in jungle and mountain areas.

The JTF commander intends to defeat the invasion force by establishing his AO to the rear of the host nation's existing border defensive positions along the main invasion corridor. He intends for the host nation to establish initial contact with lead invasion forces before committing JTF ground forces in direct contact. This action will demonstrate the invading country's aggression and the host nation's resolve against the invading country.

Once the invasion begins, the JTF commander intends to quickly develop the situation, contain the main invasion force, and destroy enemy units with swift, overpowering forces. After they stop the invading forces, JTF elements will quickly transition to the offense, forcing the enemy to withdraw and reestablish the recognized border within the JTF's area of operations. Quick success will defeat the enemy's will to continue aggression.

During this operation, activities must not interrupt airport activities within the lodgment area. Once the JTF reestablishes the border and all countries cease hostilities, the JTF will rapidly deploy.

Maneuver

To destroy the invasion force, the division commander establishes a mobile defense along the main invasion corridor behind the host nation's border defensive positions. One brigade positions forward into two battle positions to defend in sector to delay advancing forces, to prevent infiltration within the division's sector, and to attrit the enemy. This will slow the enemy's advance, commit his reserve forces early, and overextend his main attack (Figures 4-7 and 4-8).

The 3d Brigade establishes a blocking position to the rear of the forward brigade. This fixes enemy forces, creating the opportunity for the 2d Brigade and the armored strike force to maneuver to destroy the contained forces.

Lodgment security is vital to the JTF operation; a security force of two AASLT battalions with augmentation from host forces protects it. The desired end state is to destroy the attacking enemy's invasion forces and quickly transition to the offense, forcing withdrawal to the hostile country and reestablishing the border.

The mobile defense strike force consists of the 2d AASLT brigade (-), the armored brigade, and two AHBs. The force locates behind the blocking brigade to rapidly attack and destroy enemy forces in designated objective areas forward of the blocking positions. Two infantry battalions provide lodgment security during the operation.

The JTF initially limits the depth of division deep operations because of the JTF-imposed "no cross-border operations" restriction. Close coordination with in-place HN border forces results in designating EAs forward of the division.

Deep fires neutralize enemy artillery support, decreasing follow-on forces' OPTEMPO. This provides time for defending brigades to concentrate combat power without interference by follow-on reinforcements. The aviation brigade disrupts and destroys enemy follow-on motorized and armored forces supporting forward defending brigades. Deep fires and obstacles provide time and help seal off the contained enemy force, supporting strike force attacks.

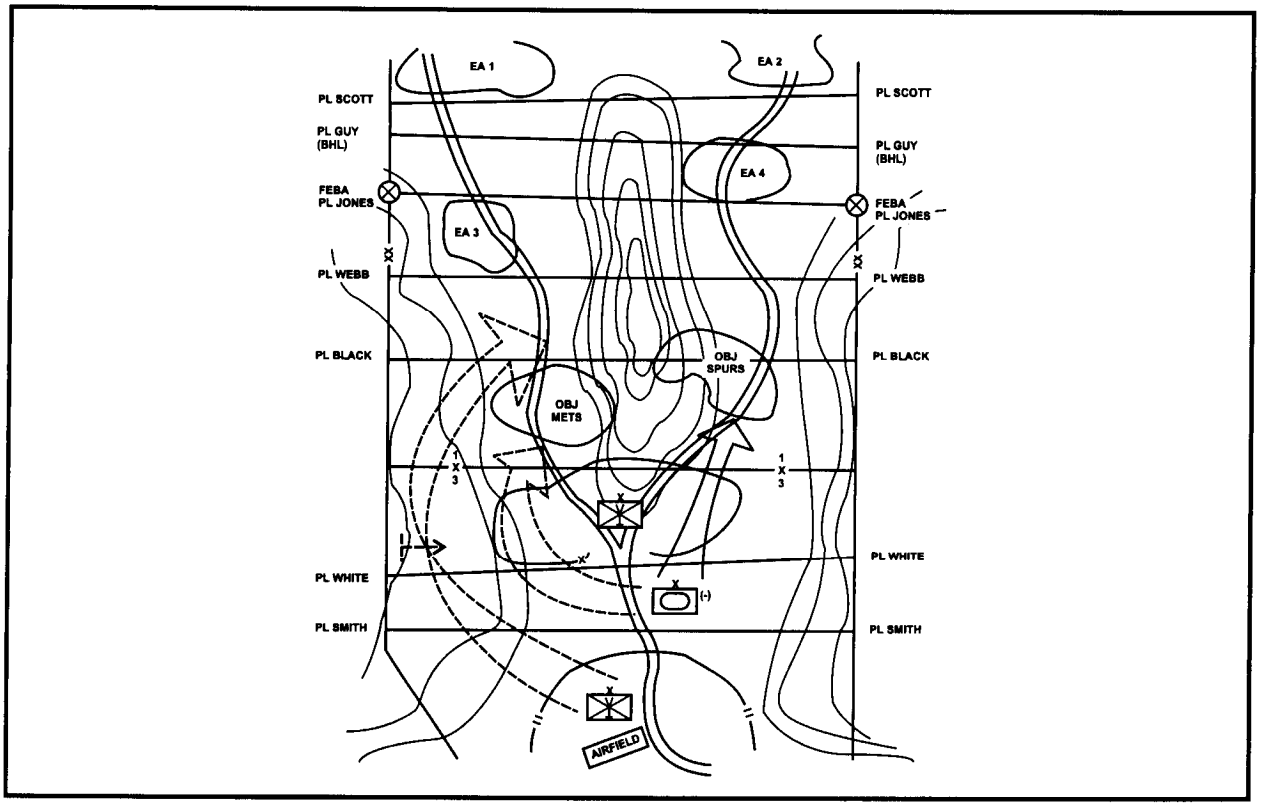


Figure 4–7. Mobile defense: concept of operations

The division cavalry squadron screens forward of the two defending brigades, establishing contact with the HN border security forces forward of the division's sector. The cavalry gains contact with advancing invasion forces that penetrate border security and maintains contact to provide early warning for the lead brigades.

As the enemy approaches the division's sector, the division initiates deep fires to disrupt, attrit, and alter the lead regiments' tempo. Maintaining contact with the enemy, the cavalry delays to the BHL, moves through the defending brigades, and establishes a rear flank screen. This screen locates behind the forward brigade sectors to detect infiltrating enemy forces that threaten the lodgment area.

Designated EAs within the brigades' defensive sectors facilitate massing of combat power during the delay to attrit the enemy. The 1st Brigade establishes mutually supporting positions constructed in depth in its sector to detect and impede enemy movement.

Defensive positions and integrated obstacles create EAs, allowing massing of available artillery and mortar fires. Available CAS and attack helicopters augment supporting fires.

The 3d Brigade contains penetrating forces by occupying blocking positions to the rear of the forward brigade and sealing off the division sector, This causes the enemy to focus and concentrate his forces on the 3d Brigade's blocking positions.

As the enemy attempts to penetrate the blocking positions, his flanks become exposed and vulnerable for counterattack. The 2d Brigade and the armored brigade then conduct a swift counterattack into the enemy's flank, destroying the forces forward of the blocking positions in designated objective areas.

The two AASLT battalions, one each from the 2d and 3d brigades, provide lodgment security, which prevents interruption of airfield and lodgment support activities from infiltrating forces. One company within the lodgment is the division reserve.

After destroying the enemy's main attack in the division sector, the division rapidly transitions to the offense, clearing the sector of remnant units,

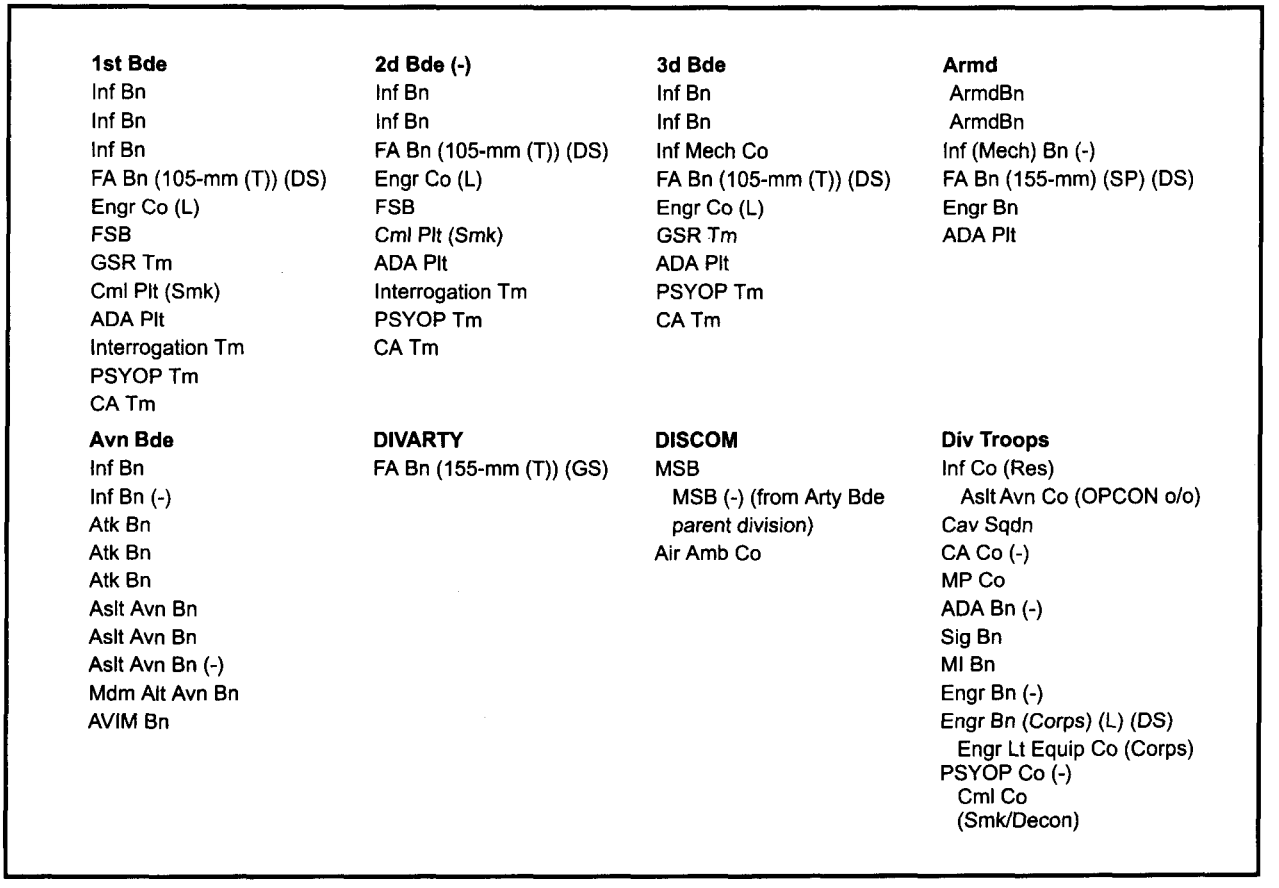


Figure 4–8. Task organization

forcing enemy withdrawal, and halting his invasion. Once the existing border is reestablished, the division closes in the lodgment area and prepares for deployment.

Intelligence

Intelligence for the mobile defense focuses on determining the enemy's precise location, strength, and intent. This information increases the effectiveness of the striking force.

The long-range surveillance teams (LRSTs) locate to observe NAIs, TAIs, and DPs. Ground surveillance radar teams provide early warning and support forward maneuver brigades and units providing lodgment security.

The division's collection plan supports the developed PIR critical to the targeting process and the enemy's destruction. The intent is to confirm the enemy's main attack and the location of his follow-on forces.

Fire Support

Fire support assets mass fires to disrupt and destroy moving enemy units in EAs. The division FSE coordinates the positioning of all fire assets so massed fires and TOT missions are possible across the division front.

Fire support weights the main effort. (The main effort in a mobile defense is the striking force.) When striking forward of conventional artillery range, the commander plans for the forward displacement of artillery assets or the incorporation of artillery into the striking force.

Mobility and Survivability

The division commander specifies general obstacle zones to fix the enemy, increase attrition, cause enemy supporting artillery to deploy, and to set and slow the enemy's tempo. The division specifies disruption zones behind EAs to enhance targeting

and deep fires and to slow the tempo of follow-on forces.

The commander designates one fixing zone forward of the 3d Brigade to assist in the enemy's containment. The obstacle plan facilitates delaying enemy forces and develops the conditions that will cause the enemy to expose his flanks, providing opportunity for strike-force attacks.

Priority of effort for the striking force is normally mobility, then countermobility. Priority of effort for the more static defending forces is normally survivability, then countermobility.

Air Defense

The division is operating in a low air threat environment. The division attaches Stinger teams to each maneuver brigade, and the battalion (-) locates within the lodgment area. These assets provide integrated ADA coverage against potential enemy heliborne operations.

Combat Service Support

The more intensely the striking force attacks the enemy from the main defensive positions, the greater will be their need for supplies. In this example, FARPs can be in the division's AO, but the armored force may need logistic support forward in the EA.

Battle Command

Division rear and main CPs locate within the lodgment area. The rear CP controls division activities within the lodgment, including security. The TAC CP locates forward in the division sector behind the blocking brigade.

Forward positioning helps synchronize the delay of the two forward brigades and the control of the armored brigade, when committed. The echelon executing the mission (normally the TAC CP) retains command of the striking force.

Transition to the Defense

While the defense's immediate purpose is to defeat an enemy offensive operation, a force may have to defend because it is unable to continue the attack. According to FM 100-5, this is a point where the strength of the attacker no longer exceeds that of the defender and beyond which continued offensive operations risk overextension, counterattack, and defeat.

A force normally defends to develop favorable conditions for an attack or to provide an economy of force in one area to mass overwhelming offensive combat power in another. Specifically, the defender may have to—

- Buy time.
- Hold a piece of terrain to facilitate other operations.
- Keep the enemy preoccupied in an area.
- Build up forces.

When attacking units cease their attack and must defend, they have two basic options. One, commit forces and push forward to claim enough ground for a security and or CFA (that is, beyond the majority of enemy artillery range fans) from which to defend. Two, fall back to defensible terrain to establish a security area, establishing the FLOT generally along the attacking force's line of advance of final objectives.

In both options, the FLOT is the forward edge of the security area. The FEBA is the forward edge of the main defensive area.

Unfortunately, the first option results in loss of additional personnel and equipment and expenditure of more resources. The security area often lacks depth. In addition, the enemy force will probably accurately template the friendly FEBA trace and engage with artillery. These actions increase loss to friendly personnel and equipment.

In many cases, option 2 is better. Commanders pull back the bulk of their forces to defensible terrain. They establish the MBA on ground the attacking force already owns rather than under the threat of enemy artillery.

The forward edge of the security area, which is the FLOT, remains along the line of contact. METT-T and the operational plan determine the depth of the security area.

The AASLT division has the capability to be a corps or JTF counterattack force or to conduct a defense forward in the corps' AO. (See Chapter 4 of FM 71-100-2.)

Chapter 5

CONCURRENT OPERATIONS

Units routinely conduct concurrent operations as part of all division operations. They contribute to overall combat effectiveness but are not standalone actions as are offensive or defensive operations. Concurrent operations enhance overall division operations. This chapter provides some examples of techniques for planning and executing concurrent operations.

REAR OPERATIONS

Division rear operations include all activities from the rear boundaries of forward brigades to the division's rear boundary. Such activities ensure freedom of maneuver, continuity of sustainment, and continuity of command and control.

Rear operations include four interrelated functions: sustainment, movement, terrain management, and security. Area damage control, addressed separately, supports all four areas. The rear CP synchronizes these activities.

The division conducts rear operations within the division rear area, which contains a large number of CS and CSS units, C^2 headquarters, and noncommitted combat units. It may also contain joint facilities, such as air bases, and HN facilities and population centers.

The ADC-S is the rear operations commander. He is responsible for directing and synchronizing sustainment operations. He and the rear CP staff plan and execute all rear operations thereby ensuring that sustainment operations respond to divisional needs.

The rear commander commands and controls rear operations through the division rear CP. The rear CP has three cells: a headquarters cell, an operations cell, and a CSS cell.

The rear CP is normally collocated with the DISCOM CP for security, life support, and ease of coordination. However, both CPs are separate and distinct. (See Chapter 2 for a detailed discussion of the rear CP.)

Sustainment

The basic mission of CSS units is to sustain the battle. Tactical logistic functions consist of actions that man, arm, fuel, fix, move, and sustain soldiers and their systems before, during, and after operations. The rear commander integrates the rear operations functions of movement, security, and terrain management as well as area damage control (ADC) with sustainment to provide synchronized logistic support.

Sustainment planning is the responsibility of coordinating staff officers, who have personnel and logistic responsibilities, and special staff officers, who have CSS responsibilities. The G1 or adjutant general (AG) plans and coordinates measures necessary to man the force. The G4 plans and coordinates (with DISCOM) measures to arm, fuel, fix, and sustain soldiers and their systems.

The DTO plans movement control and highway regulation. The assistant CofS, G5, (civil affairs) helps obtain HN resources such as civilian labor and supplies. He also helps coordinate these activities.

Personnel, logistic, and combat medical staff officers perform planning and supervisory functions primarily from within the CSS cell of the rear CP. They collocate with the DISCOM CP to aid in logistic planning, coordination, and execution. Their location also helps integrate the functions of terrain management, movement, security, and ADC.

DISCOM, the division's logistic operator, translates logistic planning into logistic support. It provides supply, maintenance, CHS, and transportation assets to the division.

The DISCOM S2/S3 section is the commander's interface with the division rear CP. The S2/S3 section develops the DISCOM critical assets list and recommends its priorities to the commander in concert with the DMMC. Once the commander approves the list, the S2/S3 section gives it to the rear CP operations cell where it is continually monitored and adjusted.

The S2/S3 section is also the key interface with supporting criminal investigation division (CID) elements for the command's logistics security (LOGSEC) operations. As the DISCOM link with the rear CP, the S2/S3 section maintains an operations map and updates other staff officers on the current situation. (For detailed discussions of CSS sustainment operations, see FM 63-2-1.)

Movement

Movement includes planning, coordinating, and synchronizing mode operations, terminal operations, and movement control. It is inherent in all combat, CS, and CSS fictions. There are generally two categories of movements—tactical and administrative.

Tactical movements are movements or maneuver to make contact with the enemy or during which contact is anticipated. Elements are organized for combat.

Administrative moves are movements in which troops and vehicles are arranged to expedite their movement and to conserve time and energy when no interference, except by air, is anticipated. Administrative movements are characterized by maximum effective use of transportation assets.

The rear CP operations cell—

- Controls administrative movements in the division rear area.
- Controls the tactical maneuver of response forces and the TCF.
- Monitors and deconflicts movement of nondivisional forces through the division rear area.
- Ensures necessary routes are cleared and that additional CSS support is available as needed.
- Coordinates CS resources, including engineer, NBC, reconnaissance, and chemical decontamination support.
- Coordinates MP support with PM operations for movements within the division rear area.
- Deconflicts tactical and administrative movements.
- Enforces movement priorities and directs the use of alternate routes to-lower priority traffic.

The operations cell closely coordinates with the G3 at the main CP and with the DTO, DISCOM movement control officer (MCO), and PM to ensure tactical movements are not hindered. The G4, with the G3, designates MSRs and determines MSR conditions (red, green, and yellow). He maintains the status and expected recovery time of routes which are not green. A timely exchange of information between MPs, engineers, and the G4 is essential.

The DTO plans and establishes movement priorities based on the division commander's overall mission priorities. The division G3 assigns motor transportation mission priorities for tactical support. The G4 is responsible for logistic support.

The DTO is the staff's communications link for transportation between the division and the corps. The DTO gives the DISCOM MCO broad policy guidance and basic plans and policies. He also provides staff supervision and assistance in transportation matters concerning all modes of transport.

The MCO controls motor transportation asset employment and allocated CSS air assets within the division. The DTO coordinates with the G3 and the division aviation officer to allocate division air assets.

All users forward transportation requirements within the division to the MCO. Transportation capabilities are then balanced against requirements and division-level priorities. When routine requirements exceed available division motor transport capabilities, the MCO requests additional transport support through a supporting MCT. The DTO will still request all required nondivisional air support and nonroutine motor transport requirements from the MCC (if a supporting MCT cannot meet requirements).

The DISCOM MCO controls division motor transport assets for CSS. He ensures the force follows established movement priorities. The MCO requests additional transportation from the DTO if requirements exceed DISCOM assets. In turn, the DTO recommends tasking other assets, or he requests COSCOM support to resolve the shortfall.

Combat support and CSS units execute administrative movement and assist with tactical movements. Through coordination with the DTO,

MCO, and the rear operations cell, CS and CSS units—

- Ensure that convoys receive necessary security.
- Road congestion is minimal.
- Supplies reach their required locations at the right time.

If the division does not coordinate tactical and administrative movements, road congestion can foil the best plans. This would degrade the ability to deliver supplies and replacements to maneuver units or the ability to evacuate casualties and damaged equipment.

Tactical movements normally receive priority over administrative movements. (Field Manuals 55-2 and 55-10 discuss movements planning and execution in greater detail.)

The division rear CP establishes a process of tracking convoys in the division rear area from the division rear boundary to their destination in the division area. It also—

- Develops alternatives to ensure movements remain constant.
- Keeps transportation users informed of available assets.
- Programs back-haul availability to cut down on delayed returns.
- Directs MSR maintenance and security.
- Processes convoy clearance requests for unit movement on division MSRs.

Terrain Management

Terrain management demands highly centralized planning and control. The major problem, in positioning units within the division rear area, comes from the competing demands of mission and security. Positioning units in the division rear area requires a fine balance between unit needs, the requirement to support the concept of operations, and the need to provide security to units.

Terrain management should facilitate current and future operations. Faulty terrain management can result in congestion, interruption of rear area traffic patterns, and degradation of support operations.

The rear CP is responsible for terrain management in the division rear area. The operations cell manages terrain in coordination with the CSS cell, MSCs, and separate units. The situation map contains all locations of bases, base clusters, MSRs, key facilities, risk areas, traffic control points (TCPs), and target reference points (TRPs).

There may be METT-T driven examples that dictate that the main CP be responsible for terrain management for support units, as during LAB and/or FOB operations. The AASLT division SOP must clearly outline these responsibilities and how the decision is made, based on METT-T, to give the main CP or rear CP this responsibility.

The importance of the units' missions to the division mission is also a key consideration. Once the staff completes units' missions and contributions to the division operation analysis, they can resolve conflicts between units and position them effectively.

A continual IPB of the rear area provides much of the data for accurately assessing terrain management needs. The rear CP operations cell uses the intelligence estimate and other intelligence products from the main CP to analyze enemy capabilities and to determine possible threats.

If a significant AASLT threat exists, the rear operations cell positions CSS units away from likely LZs or DZs. Combat units, such as the division reserve or TCF, may locate close to likely enemy LZs (usually monitored by MPs when they conduct area security) to counter the threat at its most vulnerable time-during insertion.

Field artillery units must be within range of intended targets. Transportation units should be near road networks; supply units, near LOCs.

Unless the mission dictates otherwise, the rear CP operations cell should not position units within enemy air or ground avenues of approach or adjacent to likely threat objectives. However, it should position units to provide reconnaissance and surveillance of these avenues as part of security and counterreconnaissance actions.

Combat service support units have unique terrain requirements. When possible, they locate near established air, road, rail, and water LOCs to aid mission accomplishment.

Positioning must simplify receipt of supplies and materiel, ease their movement forward to the MBA, and make evacuation, repair, and return of damaged equipment easier. The G5 coordinates facilities with the host nation and the rear CP.

All CSS units require transportation networks and alternate routes which connect them with sources of supply and support and with their customers. During offensive operations, the operations cell chooses unit locations to extend supply routes and minimize changes to division and corps CSS transportation plans.

The G3 allocates terrain by establishing AO, designating AAs, and specifying locations for certain units or activities. Once the rear area has been designated, the rear CP manages the use of the terrain within the AO.

After initial positioning, the operations cell monitors the tactical situation. It directs or responds to requests to position and reposition units in the division rear area to enhance continuous support and survivability. This centralized management process prevents positioning conflicts, maintains an integrated security plan, ensures unit survivability, and improves OPSEC.

When the division moves, either forward or to the rear, the rear CP plans for gaining additional terrain within the division rear area as the tactical situation dictates. The G3 at the main CP establishes phase lines during offensive operations to indicate future division rear area boundaries. He coordinates with the corps G3 for additional terrain during retrograde operations.

Close coordination with the corps rear area operations cell through the corps rear CP LO is essential. This ensures a logical handover of terrain management responsibilities.

Numerous units and activities occupy terrain and conduct operations in the division rear area. Figure 5-1 shows many of the units and activities which compete for usable terrain and facilities.

The rear CP operations cell plans for units two echelons down and incorporates corps or JTF units which require space. For rear operations, these echelons are base clusters and bases. This means placing units together to form multiunit bases.

The rear CP operations cell designates base commanders. Normally, the base commander is the

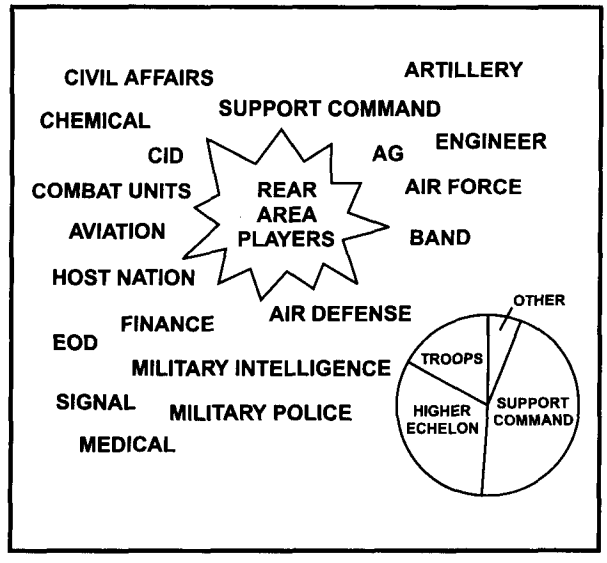


Figure 5–1. Terrain users

senior unit commander when more than one unit is present.

A medical unit commander, even if senior, cannot command a base or base cluster containing nonmedical units (AR 600-20). In addition, according to the Geneva Convention, medical units cannot take offensive action of any kind except to defend patients.

Many factors influence which units the rear operations cell will group into which bases and where they will locate. The rear operations cell must conduct a thorough METT-T analysis, including each unit's size and composition.

Medical units should not collocate with units that may be priority enemy targets. They should, however, collocate with units capable of assisting in their defense.

Situation maps depict bases by drawing a line around them similar to an assembly area. This establishes the base commander's AOR.

The base receives a numeric label designator. The rear CP maintains lists of units occupying specific bases, including types of units, personnel strength, major weapons available, and other information not on the situation map.

The base commander's AOR should allow sufficient space for subordinate units to operate, establish perimeter defenses, and conduct surveillance and counterreconnaissance. The line denoting the

base should be drawn far enough from its internal installations to allow artillery use without endangering the base. For example, the DANGER CLOSE range for cannon artillery is 600 meters. The line designating the base should be at least 600 meters from subordinate units.

Most bases are in a base cluster. However, some may operate separately. These separate bases report directly to the rear CP which integrates them into rear security plans.

Security

The rear operations cell must thoroughly understand the threat to the rear area. It must ensure a good IPB for the division rear area to further proactive security operations. The IPB for the division rear area determines the potential effects of enemy capabilities and weather and terrain on rear operations.

The specific focus of rear IPB is the enemy's air threats, airmobile and AASLT threats, SOF threats, and the CI threat (agents, sympathizers, and terrorists). This IPB becomes the basis for initial patrol plans and a consideration in selecting base cluster locations.

Continuous IPB ensures the rear operations commander has current intelligence and information for decision making. (Field Manuals 34-8 and 34-130 contain thorough discussions of the IPB process for rear operations.)

Security of the division rear area is a command responsibility extending from the division commander through the rear operations commander, to base cluster and base commanders, to unit commanders. It includes all actions from local defensive measures through commitment of TCFs.

The rear operations commander exercises operational control over all assets operating in or transiting the division rear area for security and terrain management. The rear CP operations cell supports the rear operations commander's efforts by—

- Grouping units into bases.
- Forming base clusters when necessary.
- Designating base and base cluster commanders.
- Collecting, analyzing, and approving base defense plans.
- Developing an integrated division rear area security plan.
- Approving and coordinating obstacle and fire support plans.
- Positioning response forces and fire support assets.
- Providing continual METT-T analysis of the division rear area.
- Providing continual information on the enemy and other matters to units within the division rear area.

Security operations in the division rear area are characteristically economy of force measures and are designed to provide a graduated response to threat activity. There are three levels of response:

Level I. Response to threats which base defense forces can defeat.

Level II. Response to threats which are beyond the capabilities of base defense forces but which response forces can defeat.

Level III. Response to threats which necessitate a command decision to commit TCFs.

These guidelines should not restrict a commander's response to a threat. He must apply the necessary force to destroy the threat. Any given threat may require one or all three levels of response (sequentially or simultaneously).

Base Defense Forces

Bases have clearly defined defensible perimeters and entry and exit points. By grouping units together, they share responsibilities for security, capitalizing on each unit's strengths while minimizing weaknesses.

A viable base includes a mix of weapons systems, sufficient personnel for planning and supervising, and adequate communications assets. Positioning similar units in different bases, unless it is absolutely necessary to collocate them in the same base, ensures a degree of dispersion.

Every unit or base is responsible for its own security. It must be capable of detecting and defending itself against enemy forces. Bases must use both active and passive measures to avoid detection. The

base, if detected, must be able to defeat the threat or withstand attacks until assistance arrives.

Base defense is the cornerstone of rear security operations. The unit or base commander—

- Prepares a base defense plan.
- Rehearses all personnel and units within the base on the effective execution of the base defense plan.
- Organizes a reaction force.
- Recommends movement or repositioning of the base to enhance security.
- Coordinates mutual support from other bases or the base cluster commander.
- Coordinates response force operations.
- Adjusts base defenses as the threat changes.
- Determines the base defense status.

Unit and base commanders are responsible for developing and implementing comprehensive security plans to defend their sites and protect their sustainment capability. In establishing a base defense, the base commander employs the same procedures and techniques maneuver commanders use in developing a perimeter defense.

Units establish security for 360 degrees and place the bulk of combat power on the outer edge of the position. They use interlocking fields of fire to prevent penetrations of the perimeter. They also establish perimeter defenses in either urban or rural terrain.

Base commanders ensure they and their subordinate units are aware of other units and bases in their areas of interest and establish limits of fire to prevent fratricide between units. To coordinate indirect fires, base commanders may establish RFAs around subordinate units and restrictive fire lines (RFLs) between units.

Base commanders coordinate with their base cluster commander or the rear CP to ensure they have sufficient terrain to establish OPs and patrols outside their perimeter. Commanders integrate these locations with NAIs that the base cluster commander or the rear CP establish. Figure 5-2 outlines the elements needed for a viable base defense.

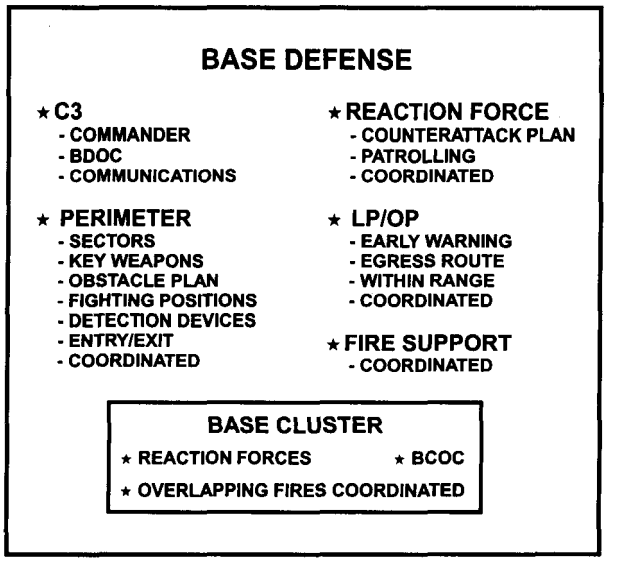


Figure 5–2. Base defense elements

Units conduct defensive operations concurrently with normal support operations. These include hardening and dispersal actions, cover and concealment, deception, and immediate reaction to enemy threat or attack. Extensive use of obstacles, sensors, surveillance devices, and OPs enhances these operations.

Base and base cluster commanders identify shortages in materiel and weaknesses in their defenses. Protective obstacles (wire, demolitions, and mines) are essential to each base's defense.

Commanders consider repositioning when a unit's defensive posture is inadequate to defend itself. The rear CP coordinates the relocation of a unit with its parent unit. Military police may assist in the movement of units by providing TCP or convoy escorts.

Base defenses should not automatically engage hostile forces. The first line of defense is to avoid detection.

Base and base cluster commanders should implement counterreconnaissance actions with those the rear CP establishes. Base commanders prepare to defend the base, report the hostile force, and observe it.

The base commander establishes a base defense operations center (BDOC) in support of security operations. The BDOC plans, coordinates, and supervises base defense operations.

Personnel from the base commander's unit normally form the BDOC. However, the base commander may draw personnel and equipment from his own unit and tenant units to form a fictional BDOC.

The BDOC may be a relatively small element, possibly as small as two personnel per shift (an NCO and a clerk-radio operator). The BDOC—

- Defines the base perimeter and establishes sector responsibilities.
- Establishes and maintains communications within the base and key locations such as entry and exit points, OPs, and the base cluster operations center (BCOC).
- Increases or decreases defensive postures based on the threat condition (THREATCON).
- Develops and monitors the base defense plan.
- Monitors and reports the base defense status.
- Develops levels of survivability required in the area.
- Coordinates fire support, obstacles, reaction force, and response force plans for the base.
- Maintains a current situation map of base units, OPs, patrols, and other friendly and enemy data as required.

Base Clusters

The rear operations cell establishes base clusters by placing geographically contiguous bases under the control of a headquarters and designating it a base cluster. Abase cluster is a mission grouping of bases and/or security requirements lacking a clearly defined perimeter.

The base cluster has OPCON of all units within the cluster for security and terrain management. Normal mission taskings and priorities remain the parent unit's responsibility.

The rear CP may also establish a base cluster for a CSG operating in the division rear area. The CSG then assigns bases within its cluster to its subordinate units and informs the rear CP of these locations and the information required by the rear CP as to type, composition, and weapons.

When possible, the rear CP operations cell designates a battalion- or brigade-level headquarters as the base cluster headquarters. In their tables of organization and equipment (TOE) support operation sections, CSS battalions and brigade-level headquarters have the capability for customer mission support activities. They also have a separate operations section for C^2 of internal unit operations.

The operations sections function as the BCOC. It coordinates terrain management planning and use and security planning and execution with the rear CP.

Base clusters on the rear operations situation map are indicated by drawing a line around the bases and by placing an alphabetic designator within the area. (Figure 5-3 shows a typical base cluster.)

The rear CP analyzes the division rear area to develop risk areas. Risk areas are areas of terrain that are not useful to the division and provide no advantage to the enemy.

By designating risk areas, the rear CP weights the limited MP force within the remainder of the division rear area. Occasional overflights or mobile patrols monitor risk areas.

Base clusters rely on mutual support between bases to enhance security. Mutual support comes from using reaction forces to assist threatened bases, from integration of MP patrol and surveillance plans, or from coordinated and interlocking fires if the bases are close together. There are no fire support personnel on a base cluster commander's staff. Units direct requests for fires to the division rear CP.

Base cluster commanders, like base commanders, exercise positive clearance before initiating fire missions in the division rear area. Positive clearance means asking the right questions of the unit requesting fire. Can you actually see and positively identify the target as enemy? Is the target doing anything hostile that requires fire now rather than maneuver action a little later? As a general rule, the rear FSE should require "eyes on target" before initiating fires in the division rear area.

The base cluster commander coordinates base defense force operations and conducts security operations by using the reaction forces of each base in the cluster if response forces are unavailable. Base commanders must have a plan to reestablish their

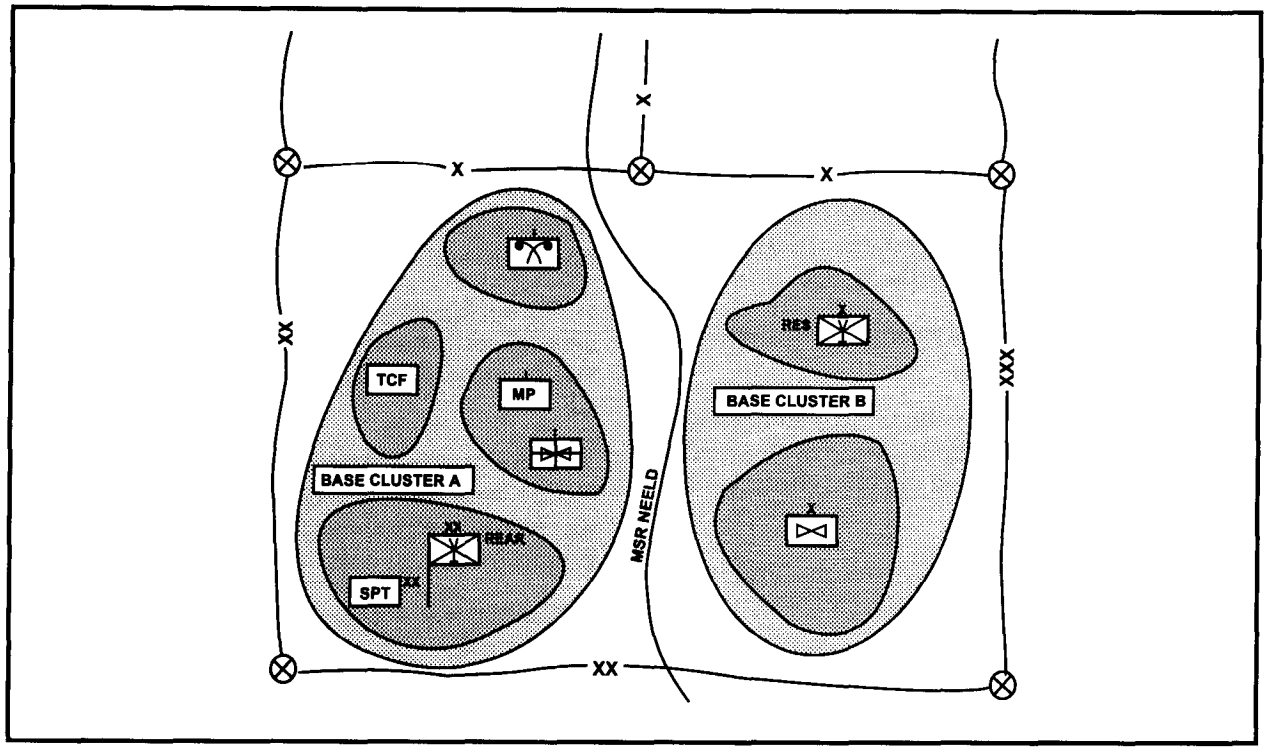


Figure 5–3. Base cluster organization

reaction force if the primary reaction force is unavailable.

Each base cluster commander forms a BCOC to monitor the status of subordinate bases and to receive and pass information to or from the rear CP. Ideally, the base cluster commander is a battalion or higher commander with a staff that can accomplish unit and base cluster functions.

Base cluster operations center tasks include—

- Integrating and/or coordinating base defense plans.
- Developing and monitoring the base cluster defense plan.
- Establishing and maintaining communications with all assigned bases, separate units in the base cluster, and the rear CP.
- Receiving and passing on threat and base defense STATREPs.
- Adjusting defense posture based on the threat.
- Coordinating fire support, obstacle, reaction force, and response force plans.
- Maintaining a current situation map.

Response Forces

Normally, response forces are MP units supported by fire support assets (Figure 5-4). Fire support for MP response forces may consist of artillery or mortars, CAS, or Army aviation.

The rear operations cell may commit MP elements to other priority missions or they may be unavailable for commitment in sufficient strength for response-force operations. If so, back-up or alternative response forces from base CSS units; engineer, chemical, or transiting combat units; and elements of the reserve (or HN assets, if available) must accomplish security operations. The rear CP coordinates with the division G3 before committing other than MPs to response-force missions.

Under certain circumstances, committing the TCF maybe preferable. It avoids risking degradation or destruction of critical CS assets. However, this must be a METT-T decision. Field Manual 100-15 cautions against premature commitment of the TCF, because doing so would rob the

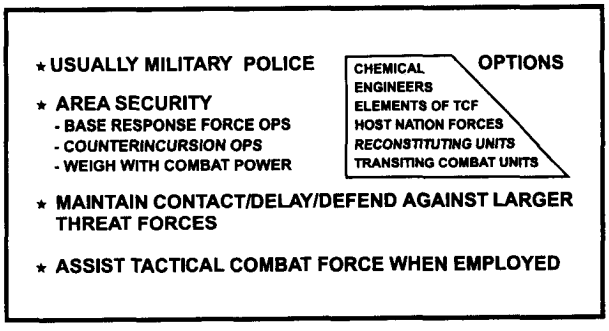


Figure 5–4. Response force elements

commander of flexibility and the initiative required to counter the overall enemy threat to the rear.

Performing response force operations requires extensive planning and coordination before commitment against an enemy. Success depends on the response force knowing and properly using terrain to gain advantage over the enemy. It also depends on massing sufficient combat power to destroy the enemy.

When possible, commanders who organize response forces should ensure bases and base clusters organize their own response forces instead of one response force. This reduces level I reaction time for the response force and facilitates coordination between the response force commander and base or base cluster commanders.

In addition to knowing the location of bases in his AO, the response force commander must know which bases are most critical and most vulnerable. The response force commander should have the following information available for each base and base cluster in his AO:

- Defensive capability.
- Base defense status.
- Location of any obstacles near the base.
- Location and direction of fire of crew-served weapons.
- Signal for final protective fires.
- Location of TRPs and preplanned fires.
- Method of contacting the BDOC or BCOC, including call signs and frequencies.
- Location of OPs and patrols, if employed.

The response force commander must also be able to mass supporting fires and facilitate TCF operations, if committed. Therefore, he must know the call signs and frequencies for supporting artillery, Army aviation units, the TCF, and the rear CP. He must also know the approved division rear area fire support target list.

The purpose of response force operations is to hasten a base's ability to return to mission accomplishment as quickly as possible. This avoids devoting sustainment resources to self-defense or limited tactical operations.

Response forces must rapidly commit in order to force an enemy to disengage from an attack before he causes significant damage. Once the enemy abandons his attack, the response force fixes and destroys him with fire support or in close combat.

When the commander commits the response force, the response force normally has OPCON of an AO. The base cluster commander and rear CP should develop on-order graphics to implement when they commit a response force or TCF.

Base commanders support the efforts of the response force by lifting or shifting base defense fires to support the response force's maneuver. If the commander subsequently commits a TCF, the TCF commander has OPCON of all bases and response forces within the TCF's designated AO.

Response forces are only effective if they can react swiftly. They must be familiar with the locations and dispositions of bases in the threatened area.

Military police platoon leaders and company commanders normally coordinate with BCOCs to ensure unity of effort. When threats materialize, the rear CP conducts an assessment and, if appropriate, commits additional response force assets.

If the threat exceeds the capability of response forces, the commander may commit a TCF. Response forces maintain contact with threatening forces and render SPOTREPs to the rear CP and TCF commander until the TCF arrives to engage the threat.

Tactical Combat Force

A TCF's primary mission is to defeat those enemy forces in the division rear area that exceed the

capability of response forces. To counter the many possible threats to the rear area, a TCF must be flexible, capable of either day or night operations, and able to obtain an advantage in mobility. It does this either by positioning or by speed of movement.

The division TCF is normally a combined-arms task force. METT-T factors and the amount of risk the commander is willing to accept influence TCF design and size.

Air assault infantry, augmented with attack and assault helicopters, may conduct TCF operations against similarly equipped enemy forces. Air assault infantry requires armored and attack helicopter augmentation if committed against armored forces. If drawn from the aviation brigade, the TCF should bean AHB.

Division rear area IPB and METT-T analyses help determine the TCF's size and composition. Under the division commander's guidance, the G3 designates one or more forces as TCFs to provide flexible responses to competing needs.

The TCF maybe dedicated or given an on-order mission. A fully committed TCF should not be given an on-order mission (such as reserve forces, for example).

The commander organizes the TCF under the rear CP if he feels the threat to his rear area is sufficient. The rear CP plans, coordinates, and controls TCF operations.

The division rear area defense plan incorporates base and base cluster self-defense measures, response force operations, and TCF operations. The rear CP provides copies of the division rear area defense plan, including fire support and obstacle plans, to the TCF.

The TCF coordinates possible response plans with the rear CP, response force commanders, and base and base cluster commanders. The TCF positions LOS with the rear CP to help with contingency planning and TCF employment.

The rear CP is C^2 headquarters for the TCF if it is dedicated and/or task-organized under the rear command. When the rear CP task-organizes TCFs. it positions them in assembly areas based on METT-T requirements.

When a threat in the division rear area exceeds the division's capability to defeat it, the division requests corps assistance. The corps TCF, or a portion of the corps TCF, can be either OPCON to the division or remain under corps control, based on tactical needs. If the corps TCF is dedicated ardor task-organized under the division rear CP, it reverts back to corps rear CP control after mission completion.

Area Damage Control (ADC)

Area damage control consists of measures taken before, during, and after hostile action or natural disasters to reduce the probability of damage and to minimize its effects. Area damage control within the rear area affects all rear operations. The division rear operations commander is responsible for ADC within the division rear area.

The ADC process includes continuous planning and action to minimize damage and a systematic approach to resolving the impact of damage on operations. Damage control teams must accurately assess damage to determine its extent and impact on operations. They must set alternatives and priorities for repairs.

Damage control plans consider rescue, firefighting, lifesaving, and communications. Every echelon conducts ADC planning.

Each base commander identifies available resources within his base and assesses its ability to conduct ADC operations. The continual upgrading of base defenses includes measures to reduce the effects of damages sustained. Detailed ADC planning is an important part of the base defense plan.

Each BCOC compiles ADC capabilities from each subordinate base and develops a comprehensive damage control plan that it forwards to the rear CP. The base cluster plan identifies available resources within each base to direct assistance from one base to another as required.

The rear CP reviews each base cluster ADC capability. It maintains a status of the damage control posture of each independent base and base cluster.

The rear CP coordinates directly with MP, engineers, chemical, and medical treatment facilities to ensure compatibility with subordinate plans. The rear CP ensures each base's capabilities are clear

and that they identify all available resources, including HN assets.

Planning Considerations for Area Damage Control

Military police support ADC by conducting refugee and straggler control and NBC detecting and reporting. They also conduct local physical security when required.

Engineer support includes constructing fortifications and obstacles which reduce the impact of damages. Engineers also clear debris and rubble, including MSR maintenance.

Commanders should exercise caution in committing engineer assets to every incident. Engineers fulfill critical mobility, survivability, and countermobility missions. Division light engineers normally require external support from nondivisional engineers to perform ADC missions.

Medical units accept casualties from units near their locations. All units must know the exact locations of the nearest medical facilities so injured personnel can receive prompt treatment.

Civil affairs or G5 elements identify HN support, especially engineer assets, to augment resources. They coordinate civilian involvement with ADC operations.

Chemical units support ADC operations through decontamination of personnel, equipment, supplies, key sites, and LOCs. Survey teams from the division chemical company assist units on a priority basis as the rear CP directs.

Explosive Ordnance Disposal (EOD) is necessary because of the presence or suspected presence of unexploded ordnance. The possibility of detonation can pose a threat to operations.

Explosive ordnance reconnaissance agents in each unit assist in reducing hazards and reporting unexploded ordnance to the rear CP. Explosive ordnance disposal training ensures agents can assist local commanders. Training teams should include all MPs and at least two soldiers from each company-size unit.

Aviation assets may assist in transporting casualties. Utility helicopters can provide emergency resupply, communications relay, and aerial assessment of damages.

Operations

Once an event causes or has caused damage, specialized personnel must simultaneously—

- Treat and evacuate casualties.
- Control damage.
- Identify and mark unexploded ordnance.
- Secure critical assets.
- Reestablish operations.
- Conduct a damage assessment.
- Report assessment of damages and status of operations.

The rear CP evaluates the information it receives. If necessary, it directs further damage assessment by aerial observation, MP patrol, its own experts, or DISCOM experts.

In developing alternatives, the rear CP or the DISCOM must determine—

- What has been damaged (facilities, supplies, and equipment).
- How extensive the damage is.
- Whether engineer assets will be needed.
- Whether the unit can continue its mission.
- Whether the unit can relocate and still perform its mission.
- Whether other facilities, supplies, and equipment are available in sufficient quantity to accomplish the mission.

The rear operations cell develops damage assessments and alternatives for repair or support. Based on the evaluation, the rear operations cell develops recommendations for the rear operations commander. He then directs actions to repair damages or pursue alternatives.

Field Manual 71-100-2 contains a sample base, base cluster, or rear area defense plan. The plan contains minimum essential elements. Field Manual 101-5 (D) contains an expanded list of what may go into the OPLAN or OPORD. Division SOPs should expand on the plan to enhance their own needs.

RECONNAISSANCE OPERATIONS

Reconnaissance is an essential and continuous operation the division conducts to collect information and to gain and maintain contact with the enemy. The G2 processes information into intelligence and provides combat information to the commander.

Commanders and staffs should not confuse reconnaissance with security operations, nor should a unit have both reconnaissance and security missions at the same time. 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 about the meteorologic, hydrographic, or geographic characteristics of a particular area.

Security operations provide reaction time, maneuver space, and protection to the main body. They are characterized by aggressive reconnaissance to reduce 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.

The G2 or S2 has staff responsibility for reconnaissance at respective levels. They assign reconnaissance tasks to subordinate units in the collection plan and coordinate with the G3 to allocate resources and assign specific reconnaissance missions to subordinate commanders when required.

Reconnaissance of some type should always precede commitment of forces. Time available determines the extent of reconnaissance. Failure to conduct a thorough reconnaissance may result in loss of initiative, unacceptable losses in personnel and equipment and, in its worst case, a catastrophic defeat.

Reconnaissance enables the G2 or S2 to confirm or deny enemy templates and the enemy's most probable COAs (developed during the IPB process). Reconnaissance by ground or air maneuver elements confirm information that IEW assets develop. It provides detailed information and verification that IEW assets cannot.

The three traditional types of reconnaissance are route, zone, and area (Figure 5-5). A *route reconnaissance* is a reconnaissance along a specific line of communications, such as a road, railway, or waterway. It provides new or updated information on route conditions and activities along the route.

A *zone reconnaissance* is a directed effort to obtain detailed information concerning all routes, obstacles (including chemical or radiological contamination), terrain, and enemy forces within a zone defined by boundaries. It normally is assigned when the enemy situation is vague or when information concerning cross-country trafficability is desired.

An *area reconnaissance* is a form of reconnaissance that is a directed effort to obtain detailed information concerning the terrain or enemy activity within a prescribed area, such as a town, ridge line, woods, or other feature critical to operations. Reconnaissance may be aerial, ground-based, or a combination of both.

A fourth type of reconnaissance operation is *force-oriented reconnaissance.* It is a precursor to maneuver and tire and accomplishes much more than simply providing information. The objective of the force-oriented reconnaissance mission is for the reconnaissance unit to find and maintain contact with a specified enemy force.

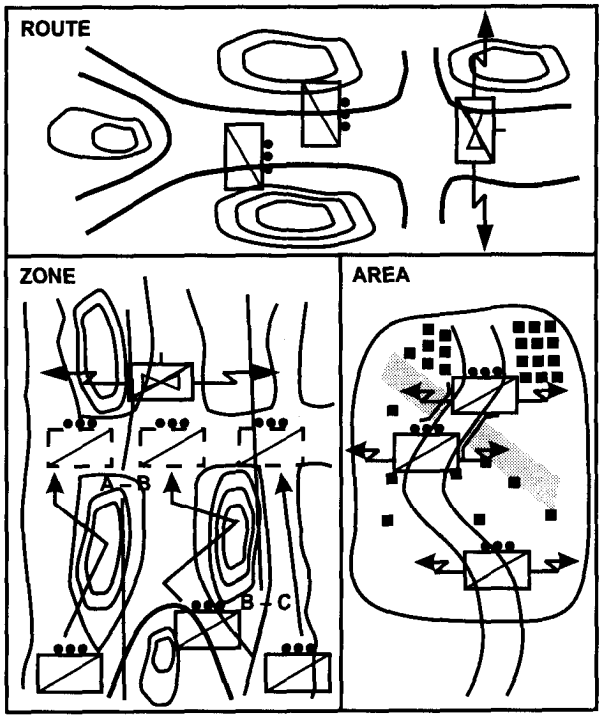


Figure 5–5. Types of reconnaissance

Reconnaissance elements may be required to maintain contact with the enemy, develop the situation, and forewarn maneuver units before initial engagements. For example, a cavalry unit can quickly conduct reconnaissance by sifting through enemy reconnaissance and security elements until it finds the enemy's main body. The cavalry unit can then do whatever it has to do to maintain contact with the enemy force. When the enemy force moves, the cavalry unit also moves.

Planning

During the IPB process, the G2 identifies gaps in intelligence information and develops a collection plan to fill the information gaps. He plans the division reconnaissance effort using the collection plan.

The G2 integrates division assets into the reconnaissance effort. He considers availability and capability of units, IEW assets, air and ground maneuver capabilities, FA radars, and TACAIR reconnaissance.

The G2 normally tasks SIGINT or imagery intelligence (IMINT) assets. However, he recommends to the G3 the missions the reconnaissance squadron or aviation brigade are to conduct, such as deep area reconnaissance. He may also forward requests for intelligence information to the corps or JTF.

The G2 prioritizes the reconnaissance effort using the commander's PIR and information requirements (IR). He coordinates the reconnaissance effort by assigning intelligence-acquisition tasks to units through the intelligence annex to the division OPORD.

During the execution of the division's mission, the G2 coordinates specific reconnaissance missions with the G3 and synchronizes the reconnaissance effort by sequencing reconnaissance tasks. He considers the times for information requirements in the decision-making process as well as the acquisition time required.

In close operations or the MBA, the G2 may assign intelligence acquisition tasks to committed forces (Annex B of the OPLAN/OPORD). These tasks are collateral to the unit's assigned mission. He may assign intelligence acquisition tasks in the reserve area to the reserve brigade, MPs, or engineers. In the division rear, he may assign intelligence acquisition tasks to CS or CSS units.

The G2, with the G3 and the MI battalion commander, resources the reconnaissance effort. On the basis of intelligence gaps, the collection plan, assets available, and sequencing, the G2 recommends task organization of IEW assets to support the division reconnaissance effort as well as those of subordinate commands.

When required, the G2 may recommend assigning reconnaissance missions to subordinate commands. However, he must make reconnaissance tasks specific (where to look, what to look for, and what information he requires). Mission-type orders will not suffice.

When planning AASLT operations during reconnaissance missions, planners must develop potential LZ and PZ locations, air corridors, LRS locations, FARP locations, attack positions for attack helicopters, and refinement of the enemy ADA picture to assist route selection and SEAD planning.

The G2 also provides specific tasks to subordinate commanders for their own mission planning. The G2 ensures the plan does not spread available reconnaissance assets too thin. It is not wise to disperse reconnaissance elements across wide frontages to simultaneously accomplish multiple tasks. The capabilities of IEW assets and moving-target-locating radars should be part of the reconnaissance effort.

Reconnaissance should include specialists such as engineers and chemical personnel. The G2 should assign reporting schedules to the assets conducting the reconnaissance. This allows him to monitor the progress of the reconnaissance and redirect efforts as required.

Routine reports pass through the division intelligence or operations and intelligence nets. Units submit critical information using the division command net. This combat information, although unevaluated, may have immediate tactical significance to the commander.

In offensive operations, the commander should base his plan for maneuver on reconnaissance. Reconnaissance determines which routes are suitable for friendly unit maneuver, where the enemy is strong or weak, and where gaps exist.

In the AASLT division, reconnaissance of air avenues is a critical requirement. Thus, reconnaissance should pull the main body toward and along

the path of least resistance. This enhances the division's initiative and agility.

Reconnaissance is also valid in defensive operations. It determines which routes the enemy is using. It also enhances agility by identifing opportunities and by pulling the division along the path of least resistance to mass the division's combat power at the critical time and place.

The G3 tasks approved reconnaissance missions to units (paragraph 3 of the OPLAN/OPORD). He also assists the commander in controlling these missions. The G2 discusses the reconnaissance effort in Annex B. Staff sections must closely coordinate reconnaissance needs and activities.

Techniques

Reconnaissance missions inherently place units in harm's way. Units strive for stealth, but stealth is not assured. The division should expect the unit assigned a reconnaissance mission to do more than just find the enemy.

There is a spectrum of reconnaissance operations that units conduct depending on a METT-T analysis. Reconnaissance operations at the division level range from deploying LRSD or unit scouts to employing the division's cavalry squadron (reinforced) to committing a brigade-size task force if necessary.

At the division level, depending on METT-T and the tactical situation, units develop the situation by reporting either the lack of enemy activity or enemy activity such as —

- Penetrating or disrupting the enemy's security forces.
- Fighting through and uncovering enemy deception schemes.
- Forcing the early uncovering of artillery.
- Determining the depth and width of the enemy's disposition.

Reconnaissance operations develop the situation to the tactical depths of the opposing enemy formation. The cavalry squadron is the division's primary reconnaissance unit, but all units can perform reconnaissance.

Reconnaissance prevents the decisive commitment of main force units. By locating the enemy, developing the situation, and discovering or creating weakness, the squadron improves the division's ability to mass combat power at the right place at the right time.

The G2 integrates reconnaissance missions with other division intelligence-collection assets for a cohesive battle picture. When possible, the cavalry squadron coordinates and integrates with the LRSD and combat net radios (CNR) of the intelligence and electronic warfare support element (IEWSE).

SECURITY OPERATIONS

The division conducts security operations to provide maneuver space and reaction time and to protect the main body. It incorporates security as part of the battlefield framework in planning all offensive or defensive operations.

The G3 develops and recommends the concept of operations, including assigning security responsibilities and missions to subordinate commanders. The subordinate commanders then plan, prepare, and execute security operations. Every unit has a continuous security role.

Types of Operations

Security operations include screen, guard, and cover operations. *Screen missions* maintain surveillance, provide early warning to the main body, conduct counterreconnaissance, and harass and impede the enemy through indirect fires. *Guard missions* include everything in a screening mission and also protect the main body from ground observation and direct fire.

Cover missions include screening and guarding operations but also help develop the situation. Cover missions deceive, disorganize, and destroy enemy forces.

Planning Considerations

As the G3 and other staff members incorporate security requirements into the planning of division operations, they consider—

- Adequate support to security forces.

- Ranges and capabilities of IEW, fire support, and communications systems.
- Time-distance relationships.
- Economy of force factors.

  Passage of lines.
- Formation of the main body.

The covering force, especially inoffensive operations, operates well forward of the division's main body. The G3 allocates resources to the covering force so it functions as a tactically self-sufficient force.

Guard forces operate within the main body's supporting artillery range. The G3 and other staff elements consider METT-T factors to determine relationships between the main body and the guard force.

The staff considers the range, capabilities, and availability of weapons systems and ammunition as it assigns security missions to subordinate commanders. Similarly, staffs consider IEW assets that may range to 30 kilometers. However, terrain, weather, and enemy electronic counter-countermeasures (ECCM) actions may significantly reduce the range.

The staff considers time-distance relationships when using screens or guards. Screens provide early warning to the main body. Planners consider the time required for the main body to counter a threat. They then compute the distance the enemy could move during that time. This helps determine the screen's location.

Planners consider economy of force factors in assigning security responsibilities and missions. Fewer forces can screen a force than can guard it. The considerations of adequate support, time and distance factors, and the threat affect this decision.

Planners consider the requirements for passage of lines by security forces. The division may require an offensive covering force when conducting a forward passage as it begins a movement to contact or when exploiting or pursuing.

Similarly, a defensive covering force may execute a rearward passage into the MBA. Screens or guards may conduct a passage with main body forces. This helps the G3 determine which headquarters provides and controls the security force. A brigade passing through an advance guard which it controls is easier to coordinate than one passing through adivision-controlled advance guard.

The staff must also consider the division formation. Each formation has its own strengths, weaknesses, and planning considerations for security.

Screen Missions

Screens provide early warning and harass and impede the enemy with indirect fires. When sufficient maneuver space exists, the division positions the screen far enough away from the main body to allow time to identify and counter the threat.

Screen forces normally operate within fire support range of the main body. Depending on the situation, the division assumes risk and positions the screen force outside the range of supporting artillery. If the division does this, they must assign adequate attack helicopter and CAS sorties to support the screen force.

The screen commander combines reconnaissance, surveillance, and counterreconnaissance techniques to identify threats to the main body. He uses the IPB to identify enemy avenues of approach and to establish NAIs for his forces to observe.

After identifying a threat, the screen commander reports to the TAC CP and uses all available assets to impede the enemy. This may require the screen to leave stay-behind forces to direct the attack.

Helicopter scouts (aeroscouts) may also direct the attack. As the screen withdraws into range, it employs main body artillery.

Guard Missions

The advance guard and the offensive covering force differ in their scope during movement and in their zone of operations. The advance guard orients on the movement of the main body and provides security along the main body's specific routes of movement.

The advance guard operates within supporting artillery range of the main body and protects it from ground observation and direct fire. The division may command and control the advance guard or give this mission to a maneuver brigade.

The G3 operations in the TAC CP monitors the advance guard's operations if it is controlled by the division. The G3 monitors its advance and operations as with any other committed force. He integrates the actions of the advance guard with those of the covering force and main body.

The advance guard conducts route reconnaissance in front of the main body. The TAC CP coordinates its movement with the main body to ensure it remains within supporting range. Phase lines control this movement and allow the advance guard to speed up or slow down, depending on the main body's status.

Artillery moves to provide support to the advance guard (as well as flank and rear guards) and to rapidly occupy positions when the main body must deploy. Priority of tires is to the advance guard during movement.

The advance guard FSE plans fire support much like the covering force's, emphasizing simple fire plans with as much detail as possible. He plans groups, series, and smoke missions to support the maneuver commander's scheme of maneuver.

Engineers, when part of the advance guard, focus on mobility of the force conducting the following missions: engineer reconnaissance, obstacle reporting to the main body, breaching obstacles, and marking breaches or bypasses. The security force commander sets the priorities.

The TAC CP coordinates IEW support for the division-controlled advance guard. The G2 operations at the TAC CP disseminates combat information and intelligence from the covering force and from the main CP to the advance guard. The TAC CP G3 coordinates engineer and AD support for the division-controlled advance guard along with the AD battalion and the engineer battalion.

Flank Guard

The main body's trail maneuver brigade normally provides and controls flank guards. This mission entails conducting security operations to the flanks to prevent ground observation and to protect the main body against direct fire.

The flank guard establishes defensive positions to the flanks for stationary or moving forces (Figure 5-6). To secure the moving force, the flank guard leapfrogs forces to successive positions along the main body's flank.

The flank guard normally focuses on battalion mobility corridors. This allows the battalion conducting the flank guard to occupy two positions while one company team leapfrogs to a forward position.

The AT company of the AASLT division acts as a counterattack force. The scout platoon conducts a screen to the flank or to the front of the task force.

Similarly, the brigade S2 closely coordinates IEW support for the flank guard. Intelligence and EW assets such as GSRs must be part of this plan for early warning, monitoring of threats, and economy of force.

The flank guard S2 establishes NAIs and TAIs. Counterreconnaissance actions assist in providing security to the flank guard and, ultimately, the main body. They may also provide the first indication a threat is developing to the flank.

The focus of engineers with the flank guard is countermobility. They plan and emplace situational obstacles to protect the-main body.

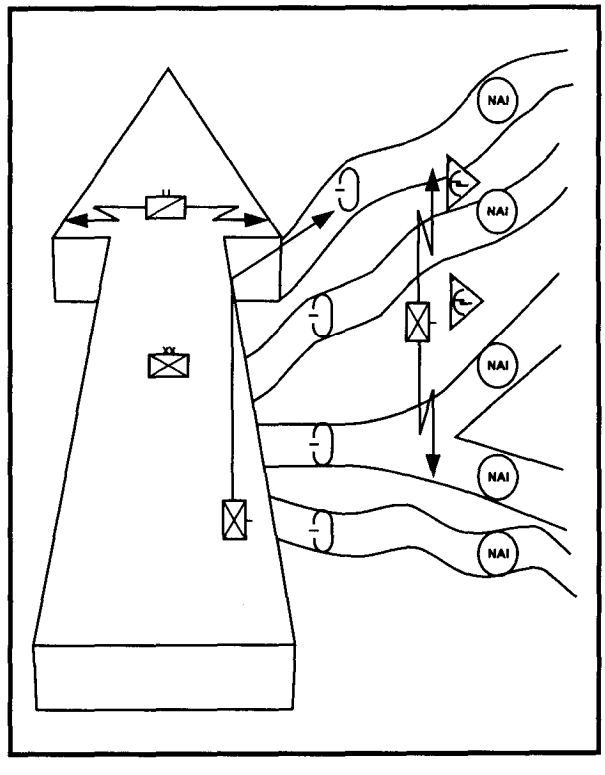


Figure 5–6. Flank guard positions

The maneuver brigade controlling the flank guard plans for reinforcement or withdrawal. To reinforce the flank guard, it becomes the fixing force while other brigade elements engage the enemy with fire and maneuver. To withdraw the guard, the brigade establishes a hasty defense and passage points to allow the flank guard to withdraw into brigade positions.

Rear Guard

The rear guard protects the main body from the rear during retrograde operations or from bypassed units during exploitation and pursuit (Figure 5-7). The rear guard orients on the movement of the main body to prevent gaps from developing and from being cut off.

Main body forces position supporting elements toward the rear of the main body to support the rear guard. This is particularly true of artillery. During retrograde operations, CAS's first priority is to the rear guard.

The rear guard commander prepares to conduct a series of delays from subsequent battle positions (BPs). He must not decisively engage unless the controlling commander approves. The main body may not be in a position to reinforce the rear guard.

During offensive or retrograde operations, the rear guard occupies the BPs. It leapfrogs to new positions toward the main body.

Rear guard elements closest to the enemy should not be outside the main body's supporting range. This requires close coordination between the rear guard and its controlling headquarters. The rear guard commander closely monitors subordinate units to allow displacing forces to occupy new positions before in-place units vacate theirs.

The rear maneuver brigade or TAC CP controls the rear guard. During the exploitation and pursuit, the rear maneuver brigade controls the rear guard. During retrograde operations, the TAC CP controls the rear guard.

Main body forces identify and assist in preparing BPs for the rear guard force. Engineers prepare survivability positions. They also conduct countermobility operations to delay, disorganize, and limit the enemy force.

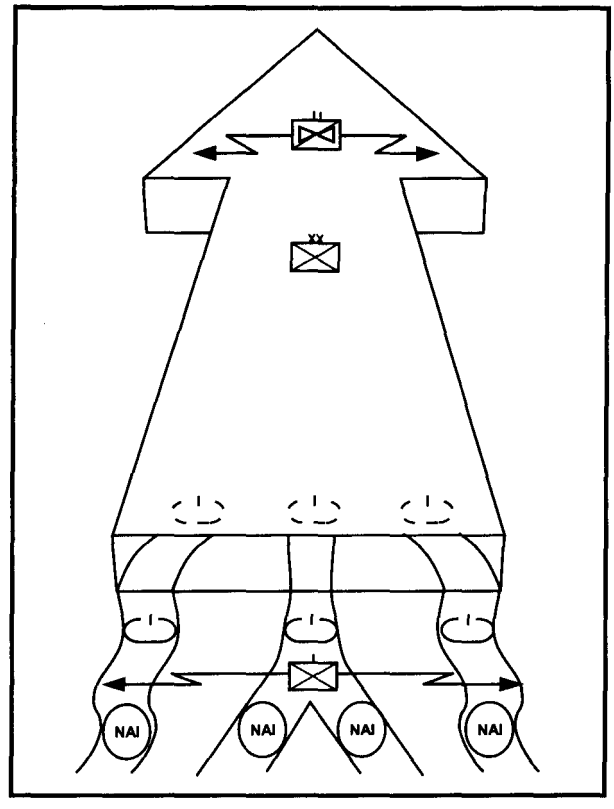


Figure 5–7. Rear guard positions

In retrograde operations, engineer units coordinate obstacle-free areas (OFAs) and lanes through obstacle belts with the rear guard. Artillery, helicopter, and USAF-delivered mines can rapidly close these lanes and reinforce breached obstacles.

The use of FASCAM in the exploitation and pursuit can help the rear guard delay the enemy and block rear approaches. The DFSCOORD ensures that appropriate units plan fires to help the rear guard disengage and move to subsequent positions.

Offensive Covering Forces

Cover missions differ between offensive and defensive operations. A division offensive covering force may be a brigade TF. The division commander establishes objectives to support his scheme of maneuver based on the IPB and available intelligence about the enemy.

As with all security operations, the covering force orients on the main body. However, the G3 and division commander may establish additional

objectives on which they want the cover force to focus, such as defeating and destroying the enemy's reconnaissance capability. This requires the covering force to use a two-team method. One team locates the enemy reconnaissance in the security zone; another destroys it. Locating enemy reconnaissance normally requires a mix of ground, aerial, and electronic reconnaissance.

Another objective of a covering force maybe to determine routes through enemy defensive belts. The covering force uncovers enemy strengths, weaknesses, gaps, locations, and dispositions and serves as a reconnaissance-pull for the main body. It may conduct limited objective attacks or probes across a wide front.

If the covering force successfully negotiates the first defensive belt, it continues to the second belt. If it is not successful, it establishes a hasty defense and waits to pass the main body. It maintains contact with the enemy and coordinates the passage of the main body with the TAC CP.

If the covering force conducts a movement to contact against a moving enemy, it performs a series of limited objective attacks and uses the objectives to orient its movement. The battalions of the covering force seize each objective and continue until they establish contact. After establishing contact, the covering force conducts a hasty attack or hasty defense to pass the main body.

The G2 considers IEW support for the offensive covering force. He provides a full complement of multidisciplined MI resources to the covering force. To ensure effective coordination and control, the MI battalion normally task-organizes into an MI company team. They operate in pairs to leapfrog between positions and to maintain continuous coverage.

Aerial intelligence assets, such as Quick Fix, habitually support the offensive covering force. They provide continuous long-range coverage over wide areas forward and to the flanks of the covering force. They also cue other systems to confirm or deny information other agencies provide and to provide coverage while ground-based systems displace.

Signal intercept systems identify and collect technical data on key enemy C^3, target acquisition, and fire control systems. Ground support radars provide early warning, information on enemy movement, and targeting information.

Interrogators ask civilians for information until EPWs, who have more valuable information, arrive. Intelligence teams conduct hasty screening and interrogations for information of immediate tactical value, such as information about enemy forces, obstacles, the terrain, and enemy plans and intentions.

Fire support planning includes both supporting and deceptive fires. If sufficient artillery is available, each battalion in the covering force should have a DS battalion.

Counterfire radars are part of the artillery task organization. The covering force establishes critical friendly radar zones around the main effort to expedite reactive counterfire.

The fire support coordination plan uses permissive control measures planned along PLs. These measures are on-order control measures planned well ahead of the covering force.

Fire plans are simple but as detailed as possible. The FSE plans groups and series of targets to support the rapidly moving maneuver forces. It also plans FASCAM on flank avenues of approach.

The FSE includes jamming, especially against the enemy's fire support and reconnaissance nets in the fire support plan. Quick Fix provides a relatively deep capability to jam enemy C^2 nets.

The DFSCOORD integrates CAS into the fire support annex and, when possible, preplans for it. Even when the enemy is moving, the G2, G3, and FSE projects when they expect to make contact. War-gaming this event provides an approximate location and time for preplanning CAS.

The G3 task-organizes AD assets to the covering force based on the ADA battalion commander's recommendation. Assets may include a mixture of Vulcan/Stinger (V/S) systems.

Teams can also be reconnaissance assets. Placing them with IEW assets assists in local protection and AD for IEW assets and simplifies terrain management and movement control. The covering force engineer plans M/S support.

Engineers with the covering force identify routes for forward movement and lateral routes to provide

the commander flexibility as he develops the situation. With the FSE, the engineer plans situational obstacles on avenues of approach into the flanks of the covering force. Engineers prepare for earth moving, rapid obstacle breaching, and assault bridging (if required).

Defensive Covering Forces

In the defense, the corps, not the division, normally provides the covering force. This allows the corps to control the covering force battle and shape the battlefield rather than allowing each division to fight an independent battle. If required, however, the division's covering force operates well forward of the main body to develop the situation and deceive, disorganize, and destroy enemy forces.

The covering force's mobility is normally equal to or greater than that of the main body and, preferably, to the opposing force as well. The defensive covering force mission may be to delay enemy forces forward of a given phase line for a specified period of time until a specific event occurs, such as when the covering force is 70 percent combat-effective.

The division plans for the rearward passage of the covering force by establishing passage points with the MBA brigades and the BHL. A phase line depicts the area in front of which the covering force is to delay and forward of the BHL.

Main body defensive units have LOS and direct-fire capability to the BHL, yet the BHL should be far enough out for the defending force to protect the covering force's rearward movement. This would give the covering force commander the depth to complete the delay and yet retain enough maneuver space to conduct an orderly passage. This also would aid the covering force's staggered withdrawal. Maneuver forces in the covering force should execute detailed counterreconnaissance plans.

Intelligence and EW assets supporting the defensive covering force are much the same as those in the offensive covering force. In the defense, IEW resources leapfrog to the rear, withdrawing in a manner that facilitates their use in the MBA.

Fire support assets organize and function in much the same manner. The FSE's detailed fire support plans are an integral part of the scheme of defense.

The FSE plans artillery and other fire support assets to mass at critical times and places. Observers watch obstacles and plan fires to cover them.

Fire support measures are permissive and close enough to the covering force to facilitate engaging the enemy. This is especially critical as the covering force withdraws into the range of artillery in the MBA.

Units plan CAS for EAs. The LRSTs observe and monitor DPs for initiation of these attacks. Engineers with the covering force conduct countermobility and survivability tasks as their first priority.

Air defense assets provide coverage on likely air avenues of approach. This is critical as the covering force tends to mass during the withdrawal. The covering force coordinates coverage of passage points and lanes into the MBA with MBA air defense forces.

Note that counterreconnaissance is not a distinct mission; rather, it is a result of security operations. Units conduct traditional security actions (including screen, guard, cover, and area security missions) as well as a variety of other activities (such as OPSEC, deception, and physical security) to counter the enemy's reconnaissance. In doing so they defeat or destroy hostile reconnaissance forces.

TARGETING

The division conducts targeting to mass combat power at critical times and places. The targeting process results in integrating all means of lethal and nonlethal fires, including artillery of all types, freed-wing aircraft, and attack helicopters, EW, PSYOP, and NGF.

Targeting aids the division commander in seizing the initiative and synchronizing combat power in deep, close, and rear operations. It is an integral and continuous part of planning and executing division operations. It begins with mission receipt and continues through operation completion. Field Manual 6-20-10 is the division's base manual for targeting operations.

Considerations

The targeting methodology is decide, detect and track, deliver, and assess (D^{3}A). The targeting process supports synchronization by focusing detection, tracking, and delivery capabilities on high-payoff targets (HPTs).

Successfully engaging HPTs is tied to the division's successful execution of the commander's intent. The key to understanding targeting in an AASLT division is the understanding that attacking HPTs is what establishes conditions for maneuver against an opposing force.

When possible, the division conducts AASLT operations where an enemy is weakest. When required by the mission, the division must create a vulnerable enemy by attacking it relentlessly, but methodically, with fires. The targeting process defines and directs this relentless method.

Targeting begins at the earliest phase of planning—mission analysis. During the planning sequence, initiated by the receipt of a warning order from higher headquarters, the division plans element establishes a targeting time line and schedules specific times for the targeting team to meet.

During COA development and war gaming, the plans element identifies critical times and events, proposes PIR, and conducts target-value analysis (TVA), in support of the restated mission and the commander's intent. During operations, targeting is a major part of the division's battle rhythm. Planners propose, detect, track, and assess HPTs in a continuous and carefully timed operational cycle. The commander approves any update.

Time is a critical resource. The targeting process creates time-sensitive opportunities for division and subordinate commanders. Using the time available, they position assets to detect, track, and engage critical enemy units and capabilities.

Without the targeting process to focus the targeting effort, the division might conduct an air assault to the wrong place or at the wrong time. Intelligence and maneuver assets may incorrectly focus on the enemy's critical targets. This may result in not supporting the division or subordinate commanders' intent and concept of operations. In the absence of the targeting process, synchronization is likely to be lost during AASLT operations.

Methodology

Targeting methodology is to decide the HPT (that is, to identify which HPT targets to attack and what weapons systems to use to attack the target), detect and track it until delivery, deliver lethal or nonlethal fires, and assess the effects subsequent to delivery, and reattack as necessary.

The decide portion is the planning phase. The detect and track, deliver, and assess portions are the execution phases.

The G3 has general staff proponency of the decide and deliver phases; the G2 has general staff proponency over detecting and tracking and assessing HPTs. The commander makes the final decision and approves all changes.

The targeting cell or board is the official body that develops targeting products in the division. The CofS serves as the CG's representative on the board and is the approving authority for all targeting cell products.

Because many members of the division staff play significant roles in the planning and execution of targeting, the targeting cell membership is broad. Normally the CofS chairs the targeting board. An example of targeting cell membership includes the following representatives:

- The G3.
- The G2.
- The FSE and DIVARTY.
- The aviation brigade.
- The EW section.
- The ALO.
- The engineer battalion.
- The ADA battalion.
- The NBC section.

METT-T may dictate staff representation from—

- The staff judge advocate (SJA).
- The G5.
- The ANGLICO section.
- The special operations command and control elements (SOCCE) section.
- The maneuver brigades.
- The PSYOP section.
- The LO.

NOTE: See also Figure 5-8.

A.	Roll call	DFSCOORD
B.	Focus period	DFSCOORD
C.	Current intelligence update	G2 Representative
D.	Review previous nominations	DFSCOORD
E.	Intelligence projection	G2 Representative
F.	Today's HPTL/target nominations	DFSCOORD
G.	Offensive EW	EWO
H.	Review attack guidance matrix/ target selection standards	DFSCOORD
I.	Proposed HPTL	DFSCOORD
J.	FRAGOs	DFSCOORD
K.	Comments	CofS
L.	Summary	DFSCOORD

Figure 5–8. An example targeting board agenda

The targeting board convenes at least once daily to validate the current high-payoff target list (HPTL), high-value target (HVT), and attack guidance based on current METT-T analysis and future plans. One technique is to hold a cell meeting in the evening with full membership, then conduct a second meeting midmorning the next day with a smaller, executive group. A standardized targeting board agenda for each session focuses the membership on events that may affect the HPTL or attack guidance.

There are many ways to validate an HPTL. One technique is to review future operations in blocks of time (H-hours, operational phases, and so on), then validate the HPTL against each time block. Whatever technique is used, the targeting process is dynamic, requiring constant validation and updating by the coordinated efforts of those charged with execution. To ensure that changes are communicated effectively, all targeting products are posted in division FRAGOs and distributed as orders.

Decide

The decide phase of the targeting process includes developing an HPTL, target selection standards, and attack guidance. Air assault operations require a detailed accounting of enemy artillery, AD, and maneuver targets that might influence the AASLT objective. Therefore, HPTLs in support of such operations are usually as specific as possible,

The G2 section conducts the first step in the decide phase. Using TVA, the G2 identifies HVTs, including units or capabilities critical to the success of the enemy's most probable and most dangerous COAs.

From the HVTs and the friendly COAs, the targeting team determines which HVTs to engage to ensure success. The G3 normally expresses these as target sets, such as maneuver, fire support, air defense, or other categories. The attack of these target sets must be possible in the context of the concept of operations.

The targeting team then determines critical nodes within these categories that the division or supporting assets can detect and attack. The plans officer and DFSCOORD consider HPTs in terms of importance to the division plan and then develop a prioritized list.

Priorities are likely to change with the division's battle rhythm or because of nightly attack helicopter raids. Also, the effectiveness of observed artillery, CAS, and AI increases during daytime and cause conditions which could change priorities.

The targeting team also determines the desired results of an attack on HPTs. The team measures the results in terms of delay, disruption, or limitation of the enemy force and expresses delay in terms of time or events.

The team expresses disruption in terms of the enemy's capability. Disruption is less precise than delay or limitation. In defensive operations, the result may be to disrupt the enemy's reconnaissance, surveillance, and target acquisition (RSTA) capabilities in the main effort's defensive sector.

Finally, the team expresses limitation in terms of geographical approaches. In rear operations, the desired result might be to limit the enemy's capability for air assaults on the division rear area.

Achieving the desired results requires the division to integrate several actions into one coordinated effort against the HPT. Limiting the commitment of an enemy force into a given area requires integrating maneuver, fire support, and engineer assets.

In rear operations, limiting the enemy's capability for air assault requires integrating engineers to create obstacles on likely LZs, for MPs to monitor likely LZs while conducting area security, and for AD assets to control likely air avenues of approach. The commander may have to position fire support assets to range likely LZs and assign R&S tasks to rear operations units. He may also position the reserve and TCF to enhance response time to air assaults.

The targeting team also develops target selection standards (TSS) during the decide portion of the targeting methodology. It defines what sources or agencies will identify targets or suspected targets.

The G3 and the FSCOORD use the standards during execution to determine which target information warrants commitment of attack assets. Discriminators to determine target-selection standards include—

- The system's inherent target-location error.
- The susceptibility to deception.
- Previously demonstrated reliability.
- The weather.
- The enemy's direction-finding and jamming capability.
- The ROE.
- The time since acquisition.

The targeting team then develops attack guidance which helps in synchronizing engagement of HPTs during execution. Attack guidance gives the G3 and FSCOORD a predetermined priority of targets to use during the battle. It assigns each HPT a target selection standard. (See FM 6-20-1.)

The targeting team determines the requirement to conduct a combat assessment during the decide process. The BDA shows if the HPT attack achieved the desired results. The division SOP must clearly identify who is responsible for the combat assessment.

During a combat assessment the first decision is whether or not the division requires a BDA against the HPT. Some HPTs may not be suitable for developing timely BDAs. The division may achieve the desired result at the critical time and place.

There may be no requirement or capability to conduct a combat assessment. If a requirement exists to conduct a BDA, the plans element allocates resources and determines its conduct.

During the COA briefing and orders approval process, the targeting team (with the DFSCOORD) presents the results of the decide portion to the CofS, G2, G3, and division commander for approval. The commander ultimately approves HPTs, TSS, and attack guidance.

During the COA and orders development process, the CofS coordinates the actions of the G2 and G3 operations elements at targeting board meetings, providing for parallel planning. Targeting meetings occur as units transition from one plan to its sequel or at periodic intervals as listed in the unit SOP. It allows elements to make decisions which support the current operation and facilitate future operations, providing continuity to the targeting effort.

Detect and Track

The detect portion of the targeting process includes developing the collection plan, allocating resources, assigning intelligence-acquisition tasks, processing information into target intelligence, and disseminating target intelligence to attack systems. The more specific the HPTs, the more likely the G2 can identify, locate and track, and accurately target them.

The detect portion of targeting has a relationship to the attack system. If EA assets are to attack the target to disrupt C^3, then the detect process not only includes a location but also technical data that electronic surveillance (ES) collected to effectively jam the target. If surface-to-surface indirect fires are to engage the target, detect includes an accurate target location and projected loiter time.

If helicopters are to attack the target, the need for location accuracy is less than for artillery. However, because of reaction time, the G2 must project and closely track the target's location. This allows the aviation brigade to conduct final preparations and update locations before the attack. The HPTs targeted for attack by AI require early identification, nomination, and continuous tracking because of the long lead times AI requires.

The G2 identifies, locates, tracks, and targets HPTs in his recommendation for IEW task organization and the division collection plan. Because of the limited range of division intelligence assets, he must coordinate with the corps collection manager to request intelligence targeting assistance for deep HPTs. This is a major reason for coordinating corps and division targeting meetings.

The G2 operations and ACE detect HPTs for close and deep operations, relying heavily on corps and EAC intelligence products. The division detects HPTs with LRSTs, Quick Fix, Q-36 and Q-37 counterfire radars, and TACAIR.

Within the division intelligence system, the G2 ensures all personnel are aware of HPTs. The HPTL distribution includes the G2 operations and the ACE as a ready reference, particularly as soldiers become fatigued.

The field artillery intelligence officer (FAIO) assists the G2. He ensures personnel are aware of the HPTs. He coordinates with intelligence managers to screen all intelligence for targeting information. He also serves as a conduit to disseminate targeting information to the FSE.

The heart of the detection phase is the IPB process. The ACE continuously updates the IPB to confirm or deny situation and event templates, using information which organic, supporting, higher, adjacent, and subordinate assets provide.

The EW section of the ACE develops the electronic preparation of the battlefield (EPB) portion of the IPB which supports HPT detection. It integrates information and intelligence from corps and EAC to assist in HPT development.

Reconnaissance reports support targeting in close operations. Intelligence acquisition tasks in the collection plan, or specific reconnaissance missions the G3 assigns to units, provide this information.

The DIVARTY counterfire officer routinely passes radar acquisitions to the G2 special compartmentalized information facility. Fire support assets may have already attacked these targets, depending on their priority and division attack guidance. However, their locations may help the ACE adjust and update situation and event templates and to locate other HPTs.

Terrain analysis helps detect HPTs for rear operations. The rear CP identifies likely LZs and integrates assigned surveillance responsibilities with the air IPB.

The G2 synchronizes HPT detection in deep, close, and rear operations using situation, event, and decision support templates. These help him coordinate and integrate resources at critical times to provide required targeting information.

Committed forces detect HPTs in close operations. These forces and assets detect both division HPTs and those of respective subordinate maneuver commanders.

The division commander and subordinate commanders may have different HPTs. The G2 may task the 1st Brigade to identify and locate enemy AD in its sector in support of a cross-FLOT aviation mission. However, air defense may not be an HPT for the 1st Brigade commander. His priority may be artillery and mortars arrayed against his main attack or reconnaissance, intelligence, surveillance, and target acquisition (RISTA) elements.

Conversely, a subordinate commander's HPT may duplicate those of the division commander. Coordination between echelons precludes duplicating effort and resources.

The G2 operations at the main CP coordinates the collection effort with the subordinate commander's S2, integrating it into the division collection plan. Likewise, the G3 operations at the main CP coordinates the attack plan with the subordinate commander's S3 and integrates it with the division's attack.

The G2 operations at the TAC CP coordinates HPT detection in close operations. He coordinates with S2s of committed forces and the G2 at the main CP to ensure collection assets focus on HPTs. As the G2 receives HPT detection reports, he informs the FSE and G3 for commitment of attack resources.

The G2 operations in the rear CP coordinates detection of HPTs in rear operations with the G2 in the main CP and base and base cluster S2s. His primary means of detecting HPTs are R&S efforts of base and base cluster commanders.

Detecting HPTs in an enemy force requiring a level II or III response to a rear area threat depends on contingency planning between the rear and main CPs' G2 operations. The rear G2 may task IEW assets to detect HPTs quickly and accurately to

engage them with the TCF, supporting artillery, attack helicopters, or CAS. The G2 operations at the main CP coordinates, integrates, and synchronizes reallocation of assets.

Often HPTs are not engaged despite detection. Perhaps the target is low on the priority list, or perhaps assets are initially unavailable for attack. Sometimes it is not merely the attack of an enemy target that is advantageous, but the timely attack of the target—such as the attack of enemy C^2 at the outset of friendly counterattack.

Any time an HPT is detected but not engaged, an agency must track the target. Often the agency is in the G2 fictional area. At times, however, a maneuver or other subordinate commander may receive the mission.

Deliver

The deliver phase is the execution of the attack against the target. The focal points are the G3 operations and DFSCOORD. Using the prioritized HPTL, target intelligence from the G2, target-selections standards, and attack guidance, they direct the attack.

The G3 operation's role in the deliver phase is to confirm HPTs and to direct their attack by maneuver forces. The FSE directs attack of HPTs by fire support assets once the G2 confirms detection and they meet attack guidance.

TACAIR and/or attack helicopters normally attack HPTs in deep operations. The range of division attack assets normally does not reach uncommitted enemy forces. Deep maneuver, though an attack option, is a high risk.

The aviation brigade plans and executes attack of HPTs by attack helicopters. The division main CP integrates this attack as part of the concept of operations.

Using the DST, the main CP G3 coordinates the attack time and location with the aviation brigade. He aids planning and execution by allocating resources and changing intelligence and fire support priorities.

The DFSCOORD and G3 operations in the main CP coordinate and integrate the joint force air coordination center's (JFACC) attack of HPTs. The DFSCOORD submits AI, CAS, and tactical air reconnaissance (TAR) nominations to the corps FSE before the desired attack in accordance with the corps' SOP (generally from 24 to 36 hours before execution).

The division FSE submits periodic updates on the location and status of targets to the corps FSE. The G2 operations provides information for these updates.

The division FSE informs G3 operations of the impending attack. The G3 operations either confirms the attack or requests diversion to a different target.

The USAF approves requests to divert after considering—

- The types of aircraft.
- The effectiveness of munitions against the new target.
- Enemy air defense in the vicinity of the target.
- The effects of weather on target engagement.
- Target distance from the old target.

Committed forces attack HPTs in close operations. Committed forces' CPs, the division TAC CP, and the main CP coordinate and synchronize attacks. Attack assets include maneuver, fire support, and engineers.

Maneuver forces may attack enemy reconnaissance as part of counterreconnaissance efforts. They may conduct limited objective attacks to disrupt AD during aviation operations.

Units may use smoke to disrupt enemy reconnaissance and target acquisition. Fire support may attack a range of targets, including enemy AD, artillery, and maneuver forces.

Assess

Combat assessment is the determination of the overall effectiveness of force employment during military operations. It includes three major components: battle damage assessment, munitions effects assessment, and reattack recommendation.

The objective of combat assessment is to identify recommendations for the course of military operations. The J3 is normally the single point of contact

for combat assessment at the joint force level, assisted by the joint force J2.

The last phase in the targeting process is assessing the damage to the target after attacking it. This phase is the most critical when the division is preparing an objective for an air assault.

The BDA requirement is determined during the decide phase of the targeting process. Generally, the HPTs, which the CofS approves, are critical to the success of the division's mission and do require a BDA. Such targets are nominated with the realization that there are a limited number of resources available to conduct a BDA. Approved HPT nominations trigger the division collection manager to update the division collection plan and to focus collection assets on those targets.

The division is extremely limited in its ability to collect BDAs. It must rely heavily on unmanned aerial vehicles (UAV) and BDAs from the corps and EAC.

There are two resources at division level that are reliable and responsive when collecting information on deep targets. They include the six LRSTs (if pre-positioned in a location where they can observe the target) and division aviation assets.

All BDAs are fed into the ACE where the intelligence analyst makes objective assessments. Time permitting, he verifies conclusions, identifying and resolving discrepancies between analysts at various headquarters.

The degree of reliability and credibility of assessments relies largely on collection resources, whose quantity and quality significantly influences whether the assessment is highly reliable (concrete, quantifiable, and precise) or has a low reliability (best guess).

The best BDAs use more than one collection asset to verify each conclusion. An example of an assessment of high reliability would be a pilot report (PIREP) from an Apache helicopter flying over a struck target and a UAV report from corps that confirms the kill. An example of an assessment of low reliability would be a civilian HUMINT source stating that a target was destroyed.

As soon as the intelligence analyst make his postattack assessment of the HPTs, he feeds the information to the targeting cell. The results may cause changes in battle plans and earlier decisions. If necessary, the targeting cell reexamines the decisions made during the decide phase. The IPB products, the HPTL, the TSS, and/or the entire plan may have to be updated.

SUPPRESSION OF ENEMY AIR DEFENSE (SEAD)

SEAD is paramount to AASLT operations. Lethal friendly fire support suppresses, neutralizes, and destroys known and suspected threat AD weapons and affiliated radars, warning, and CPs. Nonlethal friendly EW aircraft, such as the electronic helicopter (EH)-60A Quick Fix IIB aerial jammer, contribute to SEAD programs by suppressing warning and CP communications systems.

There are three categories of SEAD: localized, complementary, and campaign. (See FM 6-20-30 for a detailed discussion.) The Army has primary responsibility for SEAD out to the limits of observed fires. Beyond that the USAF has primary responsibility.

The Army must plan for localized SEAD for every mission. It must consider artillery (cannon and rockets) and attack helicopter and EW assets. If possible, it conducts missions to receive the benefits of sister service SEAD activities. When the Army and another service combine SEAD activities, they become joint SEAD (JSEAD).

United States Air Force, US Navy (USN), and US Marine Corps (USMC) on-board passive and active countermeasures (such as chaff and radar jammers) and EW aircraft combine to defeat enemy AD along flight routes and near LZs and objective areas. The division routinely plans and executes SEAD along multiple air routes to provide several options to aircraft and to confuse enemy attempts to focus antiaircraft combat power.

The corps or JTF may task the division to support SEAD activities for USAF, USN, and/or USMC aviation missions. SEAD provides combat multipliers to cross the FLOT.

Division aviation assets must survive to contribute their full combat potential. Units must accomplish SEAD quickly and efficiently to support aviation operations. Night-capable AHBs excel in

identifying and destroying enemy AD positions, artillery units, headquarters, and vehicle parks.

When the division commander decides to commit the aviation brigade, the aviation brigade plans SEAD support for the mission. The division supports the aviation brigade commander and his staff and synchronizes overall operations, including SEAD. The division concept of the aviation mission determines the complexity of the supporting SEAD operation.

The division's primary responsibility is to support suppression of ground-based enemy AD weapons to the limits of observed fire. The division has secondary responsibility out to the range limit of its indirect-fire weapons. In most situations, when reported target locations are accurate, the division can suppress targets with unobserved indirect fire.

By coordinating cross-FLOT operations with the corps or JTF and/or the USAF, the division might benefit from SEAD already planned and disseminated in the air tasking order (ATO) and/or the airspace control order (ACO). Any residual benefit the division can obtain from other SEAD operations acts as a combat multiplier.

The division supports SEAD with specific critical combat and CS elements to synergize combat power against enemy AD. Unity of effort is essential and requires detailed planning, close coordination, and precise timing.

SEAD Effects

Within each category, SEAD effects maybe destructive or disruptive. *Destructive SEAD* destroys surface-to-air defenses or personnel.

Destructive SEAD's effects are cumulative and steadily reduce aircraft attrition. When employed alone, it places large demands on combat power such as artillery pieces and ammunition. The commander must integrate destructive SEAD with disruptive SEAD, such as jammers, which are generally reusable resources.

Disruptive SEAD can temporarily degrade, deceive, delay, or neutralize surface-to-air defenses or personnel. There are two types of disruptive SEAD—active and passive.

Active suppression includes jamming, chaff, flares, and tactics such as deception, avoidance, or evasion. Passive suppression includes camouflage, infrared shielding, warning receivers, and materiel design features.

Disruptive SEAD complements destructive SEAD. It—

- Degrades jammable threats.
- Assists destructive airborne suppression systems in suppressing surface-to-air defense systems.
- Temporarily degrades or neutralizes enemy AD systems when their destruction is not possible or feasible.
- Sustains suppression effects achieved by destruction once threats are at levels commensurate with JSEAD objectives.

The division conducts localized SEAD to support cross-FLOT operations as part of its scheme of maneuver. Indirect-fire support weapons and IEW assets are the primary systems the force uses to open corridors or to suppress specific attack objectives.

Suppression begins before aircraft arrive and should continue as long as aircraft are in range, unless the system suppressing the ADA would endanger the aircraft. The division establishes egress routes and suppresses them in a similar manner.

Coordination, synchronization, and timing are critical to the success of suppression operations. Fire support, A^2C^2, and TACAIR control systems coordinate these aspects with aviation elements conducting cross-FLOT missions.

It is important for the division staff and aviation units to know to what extent the division commander wants to commit resources to the destruction of enemy AD systems versus how important it is to simply disrupt them. If the division intends to destroy all enemy AD along the flight route, it must commit the following for each enemy AD system:

- Acquisition assets to detect enemy AD locations.
- Observers to confirm AD locations, to adjust friendly destructive fires, and to submit a target damage assessment (TDA) report after the mission.
- Combat assets to engage the enemy AD system.
- Class V munitions to destroy each enemy AD system.

- Logistic assets to support the committed combat systems.

Such missions are resource-intensive operations when the enemy has several AD systems. The division probably will not attempt to destroy every target it detects. In all probability it will issue guidance that provides parameters for a mixture of destructive and disruptive SEAD.

The division continuously conducts complementary SEAD. SEAD attacks enemy AD targets of opportunity that might adversely affect current or future aviation operations when units and/or sensors identify and locate them or when attacks are consistent with available resources and commander's priorities.

The FSE may prioritize complementary SEAD efforts in specific areas to facilitate a future aviation mission. When this exceeds the division's capabilities, the G3 requests support from corps.

If the division attacks AD targets of opportunity as they find them, they do so with destructive fires. Disruptive fires would only let the enemy know his position was found. If the division cannot, or decides not to, immediately attack the enemy AD system, the division maintains the location of this target so fires can suppress it at the earliest opportunity.

Division SEAD Operations

The best protection against air defense is to select routes that avoid ADA. The routes selected determine the resources required to conduct an effective SEAD program.

The G3 must consider METT-T factors as he develops COAs for cross-FLOT or near-FLOT employment of the aviation brigade. Key considerations in staff estimates which may impact division support of SEAD operations include—

- What is the enemy force and status (not just the enemy ADA)?
- Is the enemy attacking or defending?
- Is the division facing the enemy's main or supporting effort?
- Can the division divert attack assets to conduct the SEAD without accepting unnecessary risk in other areas of the close battle?
- How much can the division commit to SEAD at the required time?
- Does the division have adequate Class V munitions to conduct destructive SEAD operations?
- Can the division logistically support resupply of SEAD operations along with other operations?
- Does terrain reinforce nap-of-earth (NOE) flights or have the effect of isolating enemy ADA?
- Does terrain result in radar blind spots the division can exploit?
- Does weather favor use of aviation assets?
- What current division operations will impact troops available to support the SEAD program for the aviation mission?
- What, if any, intelligence collection will the division have to reduce or terminate to support the development of SEAD targets?
- Is ADA an HPT?
- Did the G2 develop and maintain a good enemy AD database or will he have to redirect collection assets to target ADA? (An electronic intelligence (ELINT) or communications intelligence (COMINT) report on ADA used for situation development may be insufficient for artillery targeting.)
- What attack assets are available to support the SEAD program?
- Are adequate FARPs and Class III supplies available to support SEAD operations?
- Will they have to reposition?
- Do attack assets have the correct amount and types of munitions?
- What kind of mission is this? An attack mission? A raid? An air assault? An LRSD insertion?

Staff Responsibilities

SEAD is a force-protection requirement inherent in aviation operations. The division aviation brigade plans, prepares, and executes SEAD with division staff cells in support of its operations. The division commander and staff synchronize SEAD support

for aviation operations with the division's current and future operations.

The division G3 coordinates with the aviation brigade's S3 during mission development, He coordinates, integrates, recommends, and synchronizes changes to priorities and task organization to support the aviation brigade. The aviation brigade S3 integrates and synchronizes these assets and capabilities into the aviation brigade plan.

The aviation brigade S3 A^2C^2 element plans, coordinates, and submits air corridors to the G3 operations A^2C^2 element for synchronization and division commander approval. The G3 may synchronize a ground attack with an air operation to open a corridor. A forward thrust by maneuver forces may effectively disrupt the enemy and his FAAD system.

Maneuver units' direct-fire weapons are the most responsive and effective means of attacking close-in AD targets. Because the enemy may locate significant AD near the FLOT, planners should look for opportunities to bring ground and air penetrations together in time and space to benefit from each. Maneuver units engaging enemy AD systems report them through operations channels in accordance with unit SOPs.

The aviation brigade S3 coordinates FARPs, forward assembly areas (FAAs), and other terrain requirements with committed maneuver brigades. The G3 resolves conflicts or recommends solutions to the division commander.

Situation and target development is critical in SEAD. Working closely with the aviation brigade S2, the G2 directs intelligence organizations to identify and locate enemy AD order of battle. He also finds critical nodes which, if interdicted, would significantly degrade enemy capabilities. He integrates the aviation brigade commander's PIR, IR, and requests for intelligence information into the division collection plan.

Based on the aviation brigade mission, the G2 may recommend changes to the division commander's PIR and IR. However, he must ensure they support division operations, not just the aviation brigade's SEAD.

The aviation brigade S2 forwards requests for intelligence information to committed maneuver units to determine enemy AD locations in their AOs. He integrates this information with intelligence from the G2 and develops and disseminates target information to the aviation brigade FSE.

The FSE recommends to the G3 required changes to the artillery task organization and priority of fires to support the aviation brigade. It may recommend a mix of DS, reinforcing (R), or GS-R artillery, or it may assign the aviation brigade priority of fires for a specific mission. METT-T factors influence the choice of method.

The FSE also may recommend changes to the division HPTL, attack-guidance matrix, and target-selection standards. Depending on the time available, he may direct repositioning of fire support assets to support the overall mission as well as to provide SEAD support for the aviation brigade's mission.

Artillery units support the operation with preplanned fires and on-call missions. Electronic warfare assets degrade the effectiveness of enemy air defense by jamming key C^2 nets.

The FSE coordinates additional fires for the aviation brigade at the request of the brigade tire support officer (FSO). The FSE also coordinates SEAD for targets outside the division's boundaries but which are capable of ranging air corridors.

The opening of a corridor is a major operation requiring a heavy commitment of resources. The division can only establish a limited number of corridors in a given time. Therefore, the division FSE must coordinate with adjacent and subordinate units to ensure all division suppression operations are mutually supportive and to capitalize on enemy vulnerabilities.

Using artillery smoke in SEAD operations is both an advantage and a disadvantage. Smoke hides aircraft from enemy AD weapons that use visual acquisition. However, it is ineffective against electronic sensor-guided AD systems. Also, smoke obscures targets and prevents friendly aircraft from identifying enemy AD weapons. Smoke is a limited resource; units must carefully plan and coordinate smoke usage,

The MLRS, if available to the AASLT division, is an effective SEAD weapon. It can create corridors at the FLOT or engage several targets with its multiple-aim point capability.

Jamming enemy AD system C^2 nodes has two objectives. First, it can force enemy firing units to activate their radars to acquire targets rather than relying on the C^2 system, thus exposing themselves to acquisition and attack. However, this is useful only if systems are poised to attack when the enemy activates its radars. Second, jamming also degrades C^2 systems during friendly air operations. This type of suppression requires close coordination of flight and jamming schedules. Because of the limited number and capabilities of division jammers, the EW staff officer in the FSE synchronizes jamming of SEAD targets with the total division electronic attack (EA) effort.

ARMY AIRSPACE COMMAND AND CONTROL (A^2C^2)

Successful division operations and engagements may depend on the effective use of airspace over the AO. Within this airspace, a high density of friendly weapons systems and aerial platforms with overlapping operating envelopes and flight profiles must contribute to combat effectiveness without interfering with one another, hindering the efforts of friendly combatants, or causing fratricide.

Division A^2C^2 consists of all actions required to synchronize airspace use. The division A^2C^2 element performs these actions under the G3 air's supervision.

The A^2C^2 element coordinates airspace user requirements with the commander's plan for effective airspace use over the division's AO. The A^2C^2 element is a separate cell in the division main CP, normally located near the division fire support cell. Its primary tasks include—

- Identifying and resolving airspace user conflicts.
- Coordinating and integrating airspace user requirements within the division's AO and with other services and adjacent units.
- Maintaining A^2C^2 information displays and maps.
- Developing and coordinating airspace control SOPs, plans, and annexes to the division's OPORD and OPLANs, and disseminating ACOs, messages, and overlays.
- Approving, staffing, and forwarding to corps requests for airspace control measures requiring airspace control authority (ACA) approval and special-use airspace.

To accomplish these tasks, A^2C^2 elements continuously update G3 air and A^2C^2 displays and maps. This coordination helps synchronize combat power within the limited airspace over the division's AO.

Airspace Control Measures

To retain simplicity and flexibility, A^2C^2 element methodology stresses procedural control. Units maintain control by using airspace control measures and SOPs (air axis, air corridor). Figure 5-9 depicts airspace control measures available to provide procedural control.

Measure	Usage
Corridors and Routes:	
Air corridor	US
Air route	NATO/ASCC
Low-level transit route (LLTR)	NATO/ASCC
Minimum-risk route (MRR)	US
Standard-use Army aviation flight route (SAAFR)	US
Special corridor	NATO
Transit corridor	NATO
Zones:	
Base defense zone (BDZ)	US
High-density airspace control zone (HIDACZ)	US/NATO/ASCC
Restricted operations zone (ROZ)	US/NATO/ASCC
Weapons-free zone (WFZ)	US
Flight Levels:	
Coordinating altitude (level)	US/NATO
Traverse level	US/NATO
Other Airspace Subdivisions or Control Measures:	
Airspace coordination area	US/NATO
Amphibious objective area	US/NATO
Terminal control area (zone)	US/NATO
Weapons engagement zone	US/NATO
Control point	US/NATO
Way-point	US/NATO
Time slot	NATO/ASCC

Figure 5–9. Airspace control measures (procedural)

Airspace control measures requiring ACA approval are forwarded through the corps A^2C^2 element. (See Figure 5-10.)

NOTE: See FM 100-103 for a detailed discussion of the A^2C^2 system.

Command Post Functions

The division A^2C^2 element is under the G3. The G3 air supervises A^2C^2 element operations.

The A^2C^2 element conducts 24-hour operations and is the focal point at the main CP for all airspace control activities related to division operations. It maintains close coordination with the TAC CP, the rear CP, and the corps or JTF A^2C^2 element. This ensures that airspace requirements (which change as the tactical situation changes) are timely and effectively met.

No formal A^2C^2 element exists at the TAC CP. Selected TAC CP staff and liaison elements perform airspace control as collateral functions.

The division A^2C^2 element includes the G3 air element, ADA element, aviation element, and the ALO. The A^2C^2 element often includes an MI brigade LO and an air traffic service (ATS) LO.

The A^2C^2 element coordinates with—

- The FSE.
- The G3 air.
- The aviation brigade.
- The G4 airlift.
- The ADA battalion.
- The naval aviation liaison element (NALE).
- The ATS unit assigned to the division.
- The G2 section.
- The G4 section and, when required, the ANGLICO.
- The A^2C^2 element and the brigade S3 air.

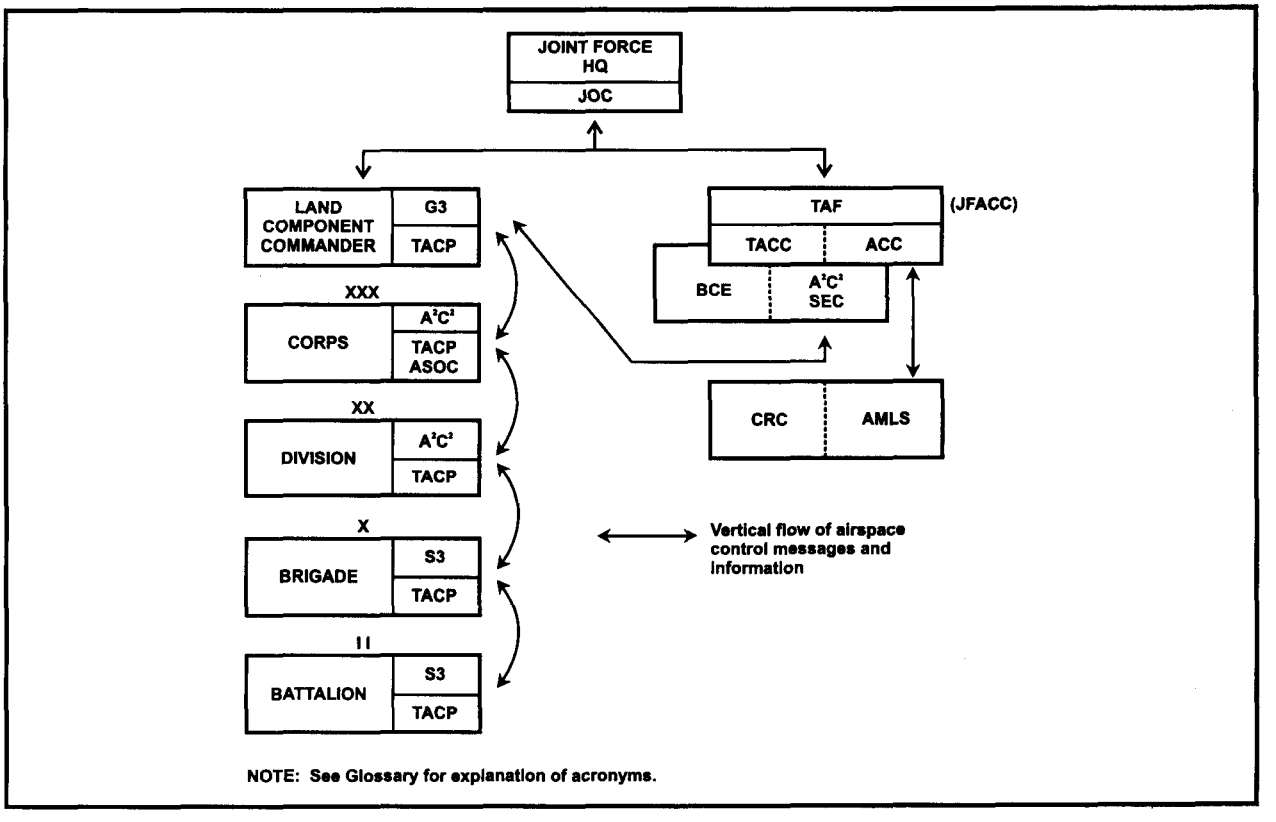


Figure 5–10. Airspace control channels

Army airspace command and control staff sections and liaison element representatives are only within the main CP.

Personnel assigned to A^2C^2 accomplish two primary tasks. First, they assist in coordinating their parent units' assets, provide technical expertise, and serve as liaison between the commander, his headquarters, and their parent units. Second, they synchronize their parent units' airspace requirements with other airspace users of the combined-arms team and services. As an additional task, the A^2C^2 staff often obtains and passes BDA information from A^2C^2 channels to the G2 staff.

Personnel performing A^2C^2 staff functions require an in-depth knowledge of A^2C^2 doctrine and procedures, corps or JTF and division airspace control plans, and division airspace control SOPs. This requires assigning personnel to perform staff duties in the A^2C^2 on a fill-time basis. It is recommended that A^2C^2 personnel receive formal training (for example, attending the Air-Ground Operations School (AGOS)) to perform their duties during training and real-world missions.

The Tactical CP

The G3 operations cell responds to airspace conflicts and changing requirements during close operations based on committed forces information and on reports, requests, and coordination with the main CP A^2C^2 element. The operations section maintains and displays unit locations down to battalion level. Committed forces provide OPLANs and OPORDs, graphics, and FRAGOs to the operations section.

The fire support cell receives and maintains locations of artillery and AD units and their coverage and range fans. The ALO has information concerning sorties-how many, when, and where. He also has information on MRRs, CPs, and initial points (IPs) that are in effect. The A^2C^2 element at the main CP provides the TAC CP with effective or planned air corridors affecting the close AO.

The A^2C^2 cell uses automated deconfliction methods when possible to expedite the deconfliction process. The G3 operations cell then requests the A^2C^2 element to resolve the conflict with affected units. In time-critical instances, the TAC CP may issue directives to resolve an immediate conflict and then pass overall synchronization to the A^2C^2 element at the main CP.

The Main CP

The A^2C^2 element at the main CP is the focal point for A^2C^2 in the division. It synchronizes airspace use for current deep, close, and rear operations and provides input and technical expertise to the plans cell for future operations.

Various organizations and CPs provide the information required to synchronize division airspace use. The A^2C^2 element keeps this information on one A^2C^2 map. The G3 air keeps up to date on branches and sequels to current deep, close, and rear operations.

Support to current deep, close, and rear operations begins with planning and coordinating airspace control measures that the division or ACA implement. In the case of LLTRs and MRRs, the A^2C^2 receives input from committed unit S3 airs, correlates the information, and provides it to the corps A^2C^2 element.

The A^2C^2 element normally plans, coordinates, and correlates information in cycles, every 8, 12, or 24 hours. It then makes recommendations based on division and brigade missions, concepts of operations, and intent. The objective is to prevent airspace control measures from restricting ground operations-especially artillery, mortar, and AD operations.

War-gaming the concept of operations, branches, and sequels should indicate artillery, AD, and Army aviation locations to avoid. The A^2C^2 element develops on-call airspace control measures to support various branches and sequels.

During operations, the A^2C^2 element anticipates activating airspace control measures to preclude airspace conflicts. Members of the A^2C^2 element review the ACO as they receive it to identify conflicts. For example, GS AD assets positioned in an LLTR may require repositioning.

Artillery units positioned in a division air corridor or positioned so their trajectory crosses an air corridor may have to reposition to fire SEAD missions in support of aircraft using the corridor. In each case, there are other options besides repositioning. (One such would be establishing airspace coordination areas for the artillery or changes to AD units' weapons control status (WCS)). The A^2C^2 element

informs the G3 of conflicts which it cannot resolve at division level or through coordination with the corps A^2C^2 element.

The Rear CP

The rear CP does not have an A^2C^2 element, but it does have an aviation cell to provide A^2C^2 interface with the division main CP or aviation brigade. The rear CP G3 operations cell responds to airspace conflicts as required and coordinates with the A^2C^2 element in the main CP. The A^2C^2 element plans, coordinates, and monitors A^2C^2 for rear operations.

During rear operations, tactical changes may require changes to airspace control in the rear. A level III response to a rear area threat primarily affects LLTRs, SAAFRs, and other air corridors that transit through the rear.

Army A^2C^2 Planning

The division should limit A^2C^2 plans and associated control measures to those necessary to ensure conformity with the tactical plan and aircraft safety. They should make maximum use of procedural control measures. The scheme of maneuver and commander's intent determine and govern their design.

The division plans as much detail as the situation and time allow. The situation's urgency and the time available dictate whether to produce an A^2C^2 annex. If used, the annex includes only information which clarifies or amplifies unit SOPs or which specifies actions and procedures necessary to synchronize airspace use.

In many situations, the fast-paced and dynamic tempo of combat operations may cause the A^2C^2 staff to use an A^2C^2 overlay and to issue verbal directives to subordinate forces. Using field SOPs, ACOs, and an airspace control plan standardizes procedures, reduces the amount of coordination, provides implementing instructions, and in many situations, reduces the need for an A^2C^2 annex.

Army A^2C^2 in Battle

Once the battle is in progress, the A^2C^2 element at the main CP continues to monitor subordinate and parent units and to modify plans as required. Effective coordination, rapid exchange of information, timely decision making, and rapid issuance of orders promote agility and initiative.

Army airspace command and control actions during the battle are the same as those performed during the planning phase. During the battle, emphasis is on—

- Anticipating and reacting to changes in the tactical situation.
- Anticipating future requirements based on the battle's progress.
- Facilitating the ability of the commander to influence the battle with air assets (identifying potential airspace conflicts and taking immediate action to resolve them).

The following activities require actions to change current operations:

- Conflicts that develop in the division rear area.
- Corps-directed specific operations such as a deep operation.
- Changes to the corps OPORD affecting airspace usage in response to the tactical situation.
- The division A^2C^2 element cannot resolve a conflict at its level.

The division A^2C^2 element maintains data on ATS facilities, current and planned restrictive measures, and special joint-use requirements. The A^2C^2 element assists the commander by making recommendations concerning the impact ADA weapons control status has on air operations.

ELECTRONIC WARFARE (EW)

Electronic warfare is the means through which the division commander protects his own electronic systems while attacking those of the enemy. Electronic warfare—

- Exploits, disrupts, and deceives the enemy C^2 system.
- Protects friendly use of communications and noncommunications systems.
- Enhances the division's agility and initiative while limiting the enemy's.
- May be offensive or defensive and is an essential element of combat power.

Electronic warfare is any military action involving the use of electromagnetic and directed energy to control the electromagnetic spectrum or to attack the enemy. The three major subdivisions within electronic warfare are electronic attack (EA), electronic protection (EP), and electronic warfare support (ES).

Electronic warfare is the use of electromagnetic energy to determine, exploit, reduce, or prevent hostile use of the electromagnetic spectrum and to ensure friendly use thereof. Electronic warfare support and EA are offensive EW components. Electronic protection is the defensive portion of EW. Electronic warfare support is that division of electronic warfare involving actions tasked by, or under direct control of, an operational commander.

Electronic warfare support is used to search for, intercept, identify, and locate sources of intentional and unintentional radiated electromagnetic energy for the purpose of immediate threat recognition. Thus, ES provides information required for immediate decisions involving EW operations and other tactical actions such as threat avoidance, targeting, and homing. Electronic warfare support data can be used to produce SIGINT, COMINT, and ELINT.

Electronic attack involves the use of electromagnetic or directed energy to attack personnel, facilities, or equipment with the intent of degrading, neutralizing, or destroying enemy combat capability. Electronic attack includes preventing or reducing an enemy's effective use of the electromagnetic spectrum, such as manning and electromagnetic deception, and employment of weapons that use either electromagnetic or directed energy as their primary destructive mechanism (lasers, radio frequency weapons, particle beams).

Electronic protection involves actions taken to protect personnel, facilities, and equipment from any effects of friendly or enemy employment of EW that degrade, neutralize, or destroy friendly combat capability. It protects the friendly use of the electromagnetic spectrum and the location of critical installations and systems. It consists of anti-ES and anti-EA. Anti-ES prevents the enemy from intercepting, locating, and identifying friendly electronic systems. Anti-EA precludes jamming or electronic deception of friendly forces. (See also FM 90-2, (S) FM 34-40, and FM 34-1.)

Roles and Relationships

The G3 exercises staff supervision over EW activities along with the G2 and the ADSO. The EW staff officer—

- Is responsible to the G3 for planning and coordinating EW.
- Coordinates electronic deception and integrates it into the deception plan.
- Prepares both the EW estimate and the EW annex to the division OPORD and/or OPLAN.

The G2 conducts ES. The G2 operations is responsible for planning, coordinating, and integrating ES in division operations. He coordinates ES requirements with the EW staff officer and the ACE.

The EPB occurs within the ACE. Units coordinate guarded frequencies with the EW staff officer to preclude jamming.

The ACE maintains the status of EW assets, collects supporting technical data, and assesses the effectiveness of division EW operations. He also conducts the mission management of EW assets.

The division signal officer (SO) is responsible for EP. The ADSO, at the division main CP, plans, coordinates, and integrates EP into division operations. He coordinates with the EW staff officer and the G2 and G3 operations to determine and disseminate the restricted frequency list consisting of taboo, guarded, and protected frequencies and to identify negative effects of EA on division operations.

The division DFSCOORD in the FSE integrates EA into the division fire support plan. He coordinates with the EW staff officer to ensure EA use is consistent with the division commander's concept and intent for fire support and the capabilities and availability of EA assets.

The EW staff officer—

- Identifies HPTs and uses the HPTL, AGM, and division synchronization matrix to plan the attack and coordinates EA taskings with the ACE, FSE, G3 operations, and SO.
- Coordinates with the ACE to ensure he directs assets to the proper positions and that they are available to accomplish EA taskings.
- Coordinates with the FSE to ensure EA targets are valid and require attack.

- Coordinates with the G3 operations to ensure the division attacks EA targets according to the synchronization matrix.
- Coordinates with the SO to ensure EA targets are not on the protected or guarded frequencies list to ensure EA operations do not interfere with friendly operations or target frequencies that are providing significant intelligence.
- Coordinates with the G3 and ADSO in the main CP to plan EW support of deception operations.

At division level, electronic deception consists primarily of manipulative or simulative electronic deception. Manipulative electronic deception alters the friendly electromagnetic profile or deliberately transmits false information. Simulative electronic deception simulates nonexisting units or capabilities or units and capabilities at false locations.

The ADSO conducts EP planning at the division level. Threat evaluation and integration during the IPB indicate the enemy's capability to conduct EW against the division. The ADSO, with the G3, determines which critical friendly emitters to protect. He plans EP by assigning taboo and guarded frequencies; frequency allocation; use of meaconing, intrusion, jamming, and interference (MIJI) reports; terrain masking; and attack of enemy jammers.

Electronic warfare planning differs little between offensive and defensive operations. The primary difference is proximity of systems to the FLOT. In both offense and defense, the division employs EW assets as part of MI company teams and leapfrogs from position to position to maintain coverage.

Planning Considerations

The EW staff officer, G2 operations, ACE, and ADSO consider EW priorities as they plan and coordinate EW in support of division operations. Priorities include—

- Protecting friendly C^3 systems.
- Attacking critical fire support capabilities.
- Degrading (or locating for destruction) critical enemy AD elements.
- Disrupting critical enemy C^3 links.

For EA, planners consider the target-link distance (the distance between the enemy transmitter and receiver) as well as the distance between the jammer and enemy receiver. They consider radio LOS, antenna polarization, jammer power and enemy transmitter power, band-width compatibility, and terrain, weather, and vegetation.

In ES, planners consider system accuracy and distance to the target. A minimum of three lines of bearing (LOBs) is necessary to accurately locate a target through direction-finding.

Planners consider the enemy's capability to conduct electronic deception against the division. In EP planning, planners consider the protection inherent in division communications equipment and procedures as well as the enemy's capabilities and the division's ability to quickly locate and attack enemy jammers.

Based on the division commander's planning guidance, the G2 and the MI battalion commander recommend the task organization of IEW assets to the G3. This task organization incorporates support to division deep, close, and rear operations as well as to committed maneuver brigades. The task organization incorporates ES support to situation and target development and to EA and EP targeting according to the division's HPTL and attack guidance matrix (AGM).

The ADSO conducts EP planning. Planning begins with identifying essential friendly emitters and sensitive communications to protect.

The staff evaluates friendly electronic emitters, signatures, and profiles based on their vulnerabilities to EW and SIGINT capabilities. They then plan EP to overcome these vulnerabilities.

The G2 integrates ES planning in the overall IPB. While terrain and weather both impact friendly and enemy use of the electromagnetic spectrum, ES planning begins during the threat evaluation phase of the IPB.

The ACE in the main CP conducts an EPB. This process identifies the electronic template of the enemy force, is part of overall situation development, and is the initial step in developing ES requirements for EA.

Electronic warfare support assets confirm or deny the EPB. The EPB supports development of situational, event, and decision support templates during the threat integration phase of the IPB process.

The EW staff officer and the ACE also use this information to identify and plan targets for EA.

Electronic attack planning incorporates the results of IPB and EPB into the commander's concept and intent through the targeting process. The commander and G3 identify EA HPTs.

DECEPTION OPERATIONS

Deception is an important combat multiplier. It enhances the conditions that allow the commander to effectively mass forces at decisive times and locations. It should be a consideration in every division operation.

The ultimate goal of division-level deception operations is to manipulate enemy behavior and create opportunities for exploitation. Battlefield deception enables the commander to conduct operations with economy of force characteristics, mass at a decisive point, and conserve and protect the force. Well-planned and executed deceptions, not luck, achieve surprise and its benefits.

Units cannot plan deception operations independently of tactical operations. The primary consideration in any deception is the corps' mission and deception plan. When possible, units should conduct centralized execution of deception operations.

Units must synchronize deception operations from the top down. Failure to fully synchronize deception operations can result in wasted combat power and possible disaster.

Higher and, when necessary, adjacent headquarters should be aware of division deception operations. Failure to coordinate these operations can damage other units' operations or deceptions.

A deception must be plausible. The enemy must believe the division's actions reflect doctrine and that it is capable of doing what the deception indicates. The deception effort must feed the enemy information in a coordinated, redundant effort through multiple channels to ensure the enemy sees the deception.

Deceptions should be adaptable and flexible. As the plan changes, the deception may also change. However, the division must portray the deception for as long as it is feasible and beneficial.

Integration is vital to successful deceptions. It must extend into every facet of the plan, including the logistics, fire support, air defense, signal, engineer, and other plans.

The target of any deception is the enemy decision maker. He has the authority to react. It does no good to design elaborate deceptions if the enemy cannot collect, analyze, or react to the information or if the deception is contrary to normal operating procedures.

Feedback is important. The division must establish the means to verify the deception. Usually, the division's normal intelligence infrastructure can accomplish this. However, it may not always be possible. Therefore, all plans, including deception plans, must be flexible.

Finally, the division must consider cost of a deception in terms of resource expenditure. For a deception to appear real, the division must dedicate adequate resources. The cost depends on the type of deception (demonstration, display, feint, or ruse) and its objective.

The division must also measure costs in risk and flexibility. Flexibility is built into the plan by using branches, sequels, or executable deceptions.

The five components of battlefield deception are the *objective*, *target*, *story*, *plan*, and *event*. The *objective* is what the division wants the enemy to do. The *target* is the enemy decision maker. The *story* is what the division portrays to the enemy. The *plan* is the concept of how the story is portrayed. The *event* is a specific action performed as part of the plan. Since deception is inherent in planning and concurrent with current operations, the division G3 has overall responsibility for deception (with support from other staff agencies).

If the intent is to induce the enemy to do something the division can exploit, the commander and staff address deception early in the planning process. The division wastes its time and resources if it begins work on the deception operations after the division has developed, war-gamed, and decided on a COA. It becomes an afterthought, ill-planned because of lack of time, and ill-resourced because the division has already allocated its assets in the war game of the chosen COA.

In providing his deception guidance, the division commander considers—

- What he wants the enemy to do.
- How the division can best make the enemy do it.
- What forces and materiel he will dedicate to the effort.
- How he expects the enemy to behave.
- How the division can benefit from that behavior.

These guidelines require the deception to do more than just alter or reinforce enemy perceptions. It must manipulate enemy behavior and then exploit it.

The staff uses this guidance to develop a deception plan or COA in the same manner it develops and analyzes other COAs. The G2 provides normal input, identifying enemy weaknesses, vulnerabilities, and collection assets that can detect the deception.

Done properly, a deception is part of a COA. Like any COA, deception development involves the entire staff with developed and implemented OPSEC measures.

COUNTERFIRE

The enemy may employ fire support to create opportunities for maneuver forces to exploit. The division should establish conditions for decisive combat maneuver through destruction of the enemy's fire support system. Effective and efficient counterfire requires integration of intelligence, tire support, and maneuver.

Counterfire consists of fires targeted throughout the battlefield that attack the enemy's entire fire support system. Counterfire—

- Assists the division in achieving and maintaining agility and initiative.
- Gains freedom of action and protects the force.
- Deprives the enemy of freedom of action.

Components of Counterfire

Counterfire maybe proactive or reactive. Proactive counterfire is the detection and attack of enemy firing and nonfiring systems before they engage friendly forces. Units must link proactive counterfire with the targeting effort. As the name implies, reactive counterfire is a response to the enemy's engagement of the division.

Proactive counterfire requires the intelligence system to identify, locate, and accurately target elements of the enemy fire support system. The corps normally conducts the proactive portion of counterfire. Still, the division may conduct proactive counterfire against enemy fire support systems within range of organic and supporting intelligence and fire support systems.

Reactive counterfire requires integration of intelligence, target acquisition, fire support, maneuver, and C^2. The intelligence system must use the IPB to predict likely locations of enemy fire support systems. Using the prediction, the division positions and tasks intelligence sensors and target-acquisition assets to confirm the IPB and provide target information. Fire support assets engage enemy fire support systems on the basis of this information.

Maneuver elements provide information from R&S. They also may engage enemy target-acquisition assets located on or near the FLOT. The C^2 system provides the reporting network for counterfire and identifies priorities for force protection.

Planning Considerations

Division planning considerations for counterfire include—

- The corps counterfire plan.
- The capabilities of friendly and enemy fire support.
- The capabilities of friendly and enemy target acquisition.
- Command and control capabilities.

The division must understand its role within the corps' counterfire plan. The corps commander's concept and intent define the corps' counterfire plan.

Corps fire support and artillery support plans further define corps and division roles. The corps delineates responsibilities, establishes priorities, and allocates resources based on the corps mission and the part counterfire plays in the mission.

Within the division, the first counterfire consideration is the enemy's capabilities. The G2 provides this information as part of the IPB and targeting process.

Counterfire considerations include the enemy's mission and whether the division is facing the enemy's main effort, enemy mortars and artillery, enemy EW, and fixed- and rotary-wing assets. The G2 includes ranges, echelons, and types of artillery in the estimate.

The G2 must also consider the munitions capabilities of the enemy's fire support system. For example, weapons that fire improved conventional munitions (ICMs) are a greater threat than those capable of firing only standard high-explosive (HE) munitions.

The G3 and DFSCOORD must consider the capabilities of friendly weapons systems. The corps' 155-millimeter and 203-millimeter howitzers can fire 30 kilometers with rocket-assisted projectiles (RAP). However, these munitions do not have the effectiveness of dual-purpose, improved, conventional munitions (DPICMs) which have a maximum range of 18 kilometers for the 155-millimeter howitzer and 23 kilometers for the 203-millimeter howitzer.

Normally, the MLRS is the counterfire weapon of choice. It has a maximum range of 30 kilometers, but a minimum range of 10 kilometers. If positioned well forward to range deep into the enemy formation, it may not be capable of ranging counterfire targets on or near the FLOT.

Enemy target acquisition capabilities also impact division counterfire planning. The division must plan to attack and destroy enemy artillery reconnaissance elements, counterfire radars, and command OPs through an aggressive counterreconnaissance effort. The division must also strictly employ and enforce EP to negate or limit enemy direction-finding capabilities.

Similarly, the commander and staff must consider the division's and corps' target acquisition capabilities. These capabilities include the Q-36 Fire Finder radar, Q-37 radars, IEW systems, UAVs, forward observers, and combat observation/lasing teams (COLTs) employed with maneuver forces. The division must also consider the threats to each of these.

The C^2 organization of friendly artillery is also a consideration. The division must decide whether to centralize or decentralize artillery counterfire. Augmenting the division with a corps artillery detachment and a target-acquisition detachment provides additional flexibility.

Centralization facilitates massing of artillery and precludes duplication of effort. It also enhances use of counterfire radars (Figure 5-11).

However, centralization places a heavy burden on the headquarters responsible for executing artillery counterfire. If the division has a reinforcing corps FA brigade, it may direct the reinforcing FA brigade to execute artillery-delivered counterfire (but the DIVARTY commander still has the overall responsibility to execute the division's counterfire

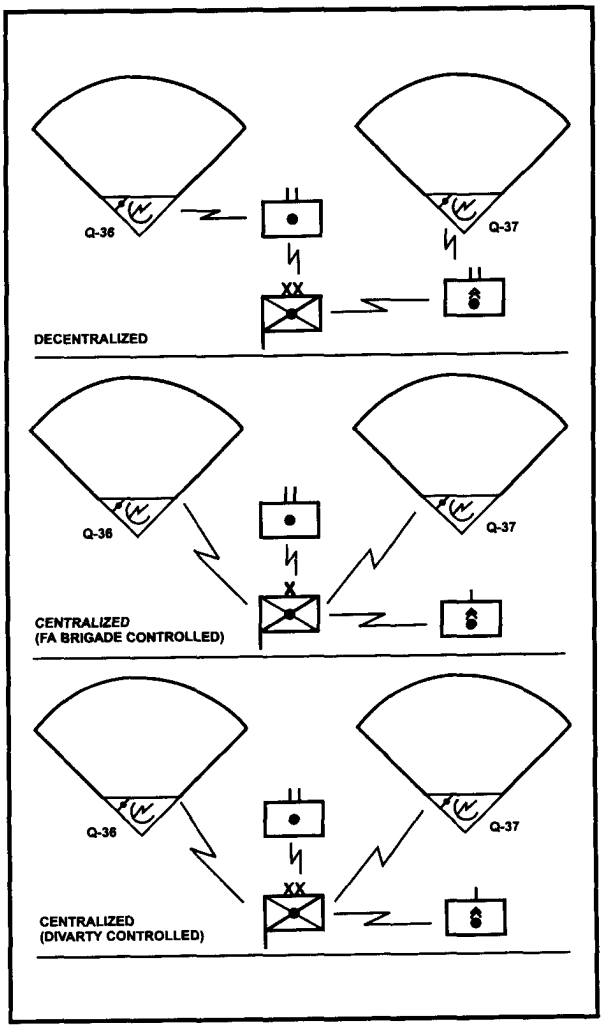


Figure 5–11. Radar C^2 organization

efforts. This allows the corps FA brigade to focus on counterfire while the DIVARTY headquarters focuses on artillery support to committed forces.

Techniques

The corps should delineate counterfire responsibilities between the corps and division. This allows each echelon to focus on a specific area of the battlefield and prevents duplication of effort.

Counterfire planning begins with the targeting process during COA development and war-gaming. The targeting cell identifies HVTs and refines them into HPTs for the division. It recommends what targets to attack, how to detect and engage them, and how to determine the results (through the BDA), The targeting cell does this as part of the division's total targeting process, not as a separate action.

Generally, the division conducts reactive counterfire against enemy mortars and artillery. The corps normally engages enemy artillery and other fire support assets. Maneuver brigades may have counterfire responsibility against mortars and artillery of committed regiments, while the division conducts counterfire against enemy division artillery.

The commander prioritizes counterfire targets within the division's zone. Normally, enemy fire support facing the division's main attack or main defensive effort receives priority for counterfire. However, when the division employs a unit in an economy of force role, that unit may receive priority.

Once the commander decides what to attack with counterfire, his staff can plan how to detect targets. Again, the IPB process is the first step.

Using situation and event templates from the IPB process, the G2 and FSE focus IEW sensors and target-acquisition assets on likely enemy fire support positions. The division uses the engineer terrain team, computer software, or other methods to develop visibility diagrams which assist in the placement of acquisition radars and observers.

Units establish call-for-fire zones (CFFZs) around likely enemy firing positions. Ground surveillance radars may provide combat information on enemy firing units occupying likely firing positions. They may also provide a degree of BDA indicating that units are displacing after counterfires have engaged a likely firing position. They may also cue other target-acquisition assets such as the aerial fire support observer (AFSO).

Similarly, with direction finding, ES assets may locate key fire support headquarters for lethal attack or jamming. Units may also use ES assets to identify and locate artillery reconnaissance elements or command OPs as part of the division counterreconnaissance effort.

The division employs a variety of techniques to execute counterfire. It uses the counterfire program when there is little movement of enemy fire support assets and sufficient time available to identify, locate, and target them. This technique allows the division to disrupt enemy fire support systems at critical times, such as during a counterattack or a penetration.

Another technique is strictly reactive counterfire. It involves attacking enemy fire support assets during or immediately following enemy engagement of friendly forces. A cuing agent normally initiates this technique. The FAIO, or any other person designated by the FSCOORD, directs the counterfire radar to radiate, acquire the target, and transmit a fire mission to its reporting headquarters.

Using counterfire radars requires several decisions. First, the division examines the threat to decide if radars will operate in a continuous or command-cued manner. If the threat of acquiring the radars is low, the commander may direct continuous cuing. If the threat is high, the division normally employs command cuing.

Command cuing requires cuing agents to direct the radar to radiate. These agents are normally battalion or brigade FSOs, but may include fire support team (FIST) chiefs or even individual forward observers.

The controlling headquarters assigns zones of search to individual radars. Each radar may establish four types (up to nine zones) of search, including—

- Critical friendly zones (CFZs).
- Call-for-fire zones (CFFZs).
- Artillery target intelligence zones (ATIZs).
- Censor zones.

Units establish CFZs around the highest priority friendly locations. Typical CFZs include maneuver assembly areas, headquarters, and other troop concentrations, The CFZ provides the most responsive priority of fires from radars.

The CFFZs designate locations beyond the FLOT that are likely enemy artillery or mortar positions. Enemy fires from a CFFZ result in the second most responsive priority of fires from the radar.

The ATIZs allow the commander to monitor a likely enemy firing position, but give higher priority to other locations. The division can evaluate enemy fires from within an ATIZ for attack, but do not automatically generate a fire mission as do the CFZ and CFFZ.

Censor zones designate areas from which the commander does not want to attack targets. Units frequently use these zones to prevent overlap and duplication. Censor zones are particularly critical during cross-FLOT air assaults in which friendly artillery units at the FLOT and at the objective can be firing toward each other at an enemy caught in the middle.

Units can digitally link counterfire radars to one of several artillery headquarters. One technique is to assign a Q-36 radar to each DS artillery battalion to provide the maneuver brigade commander a reactive counterfire capability he would not otherwise have. It allows the brigade commander to orient the radar and establish zones of search that best support his concept of operations.

DIVARTY may direct the two Q-37 radars to link to DIVARTY headquarters concurrently to provide reactive target acquisition at division level. The division may use this technique if maneuver brigades have the counterfire responsibility against regimental artillery and mortars.

A second technique is to have all counterfire radars report to DIVARTY headquarters to allow central C^2 of radars and artillery counterfire. It also enables DIVARTY to maintain continuous coverage of the division sector by leapfrogging counterfire radars. The complexity of this technique may cause DIVARTY to lose visibility of other functions. In addition, if the division does not have sufficient GS or GS-R artillery, radars may quickly overload available artillery at the division level.

Counterfire radars may report to a reinforcing artillery brigade if the corps assigned one to the division, This allows DIVARTY to monitor counterfire execution while focusing on its other functions.

Even if the reinforcing artillery brigade has the counterfire mission, the DIVARTY commander maintains overall responsibility. He augments the reinforcing FA brigade with assets from the target acquisition battery to enable the FA brigade to effectively accomplish this mission.

The division may employ—

- Maneuver forces against enemy fire support systems, including using small maneuver elements to engage RSTA elements (such as artillery reconnaissance or command OPs).
- Attack helicopters against artillery groupings at regiment, division, or army levels.
- A mix of these techniques.

Ground maneuver forces may attack target-acquisition elements while EW assets jam key fire support nets. The division may use mortars against target acquisition assets or fire direction centers (FDCs) while artillery and attack helicopter and CAS aircraft engage artillery.

Chapter 6

OTHER OPERATIONS

RELIEF IN PLACE

A relief in place is a combat operation in which one unit replaces all or part of another unit in a combat area. Secrecy and speed characterize this operation.

A corps or JTF headquarters may direct the AASLT division to conduct a relief in place during the course of combat operations. Centralized planning by the division staff and decentralized execution by major subordinate commands are the key to its success.

A relief in place may serve one or more of the following purposes:

- To relieve a depleted unit in contact.
- To relieve units stressed by prolonged operations in adverse conditions.
- To rest a unit after extended periods at high mission-oriented protective posture (MOPP) levels.
- To decontaminate a unit or to avoid excess radiation.

The AASLT division's higher headquarters directs when and where to conduct the relief and establishes appropriate control measures. The corps or JTF may require the AASLT division to conduct a relief in place under enemy pressure or without enemy pressure.

A relief in place conducted without enemy pressure normally entails a one-for-one "swap out" of like type units and equipment from occupied positions. The division performs the relief in place as nearly as possible on a unit-for-unit, man-for-man, weapon-for-weapon basis. This operation is time-consuming and requires detailed coordination and supervision.

NOTE: See FM 71-100-2 for a detailed scenario explaining a relief in place.

RETROGRADE OPERATIONS AND SCENARIO

The AASLT division may have to disengage from an enemy force by conducting retrograde operations. Units conduct retrograde operations to-

- Preserve combat power by gaining time.
- Avoid combat under unfavorable conditions.
- Reposition forces to eliminate exposed flanks or to shorten LOCs.
- Conform to other units' movements.
- Draw the enemy into an unfavorable position.
- Harass, exhaust, resist, delay, and damage the enemy.
- Clear areas for friendly use of nuclear or chemical fires.

The three types of retrograde operations are delays, withdrawals, and retirements. In a *delay*, a division under enemy pressure trades space for time, inflicting maximum damage while avoiding decisive engagement. A division in contact with the enemy conducts a *withdrawal* to break contact. In a *retirement*, a division not in contact moves away from the enemy.

Figure 6-1 shows that the AASLT division has conducted defensive operations as part of a corps defensive operation. The corps conducted a defense in sector with a mechanized division on the left and the AASLT division on the right in restrictive terrain in an economy of force role. The enemy main effort was against the mechanized division.

To preserve the fighting strength of both divisions and to reduce a developing exposed flank between them, the corps commander directs the divisions to withdraw to more defensible terrain along PL ALPHA. There the corps reestablishes defensive operations against the attacking enemy.

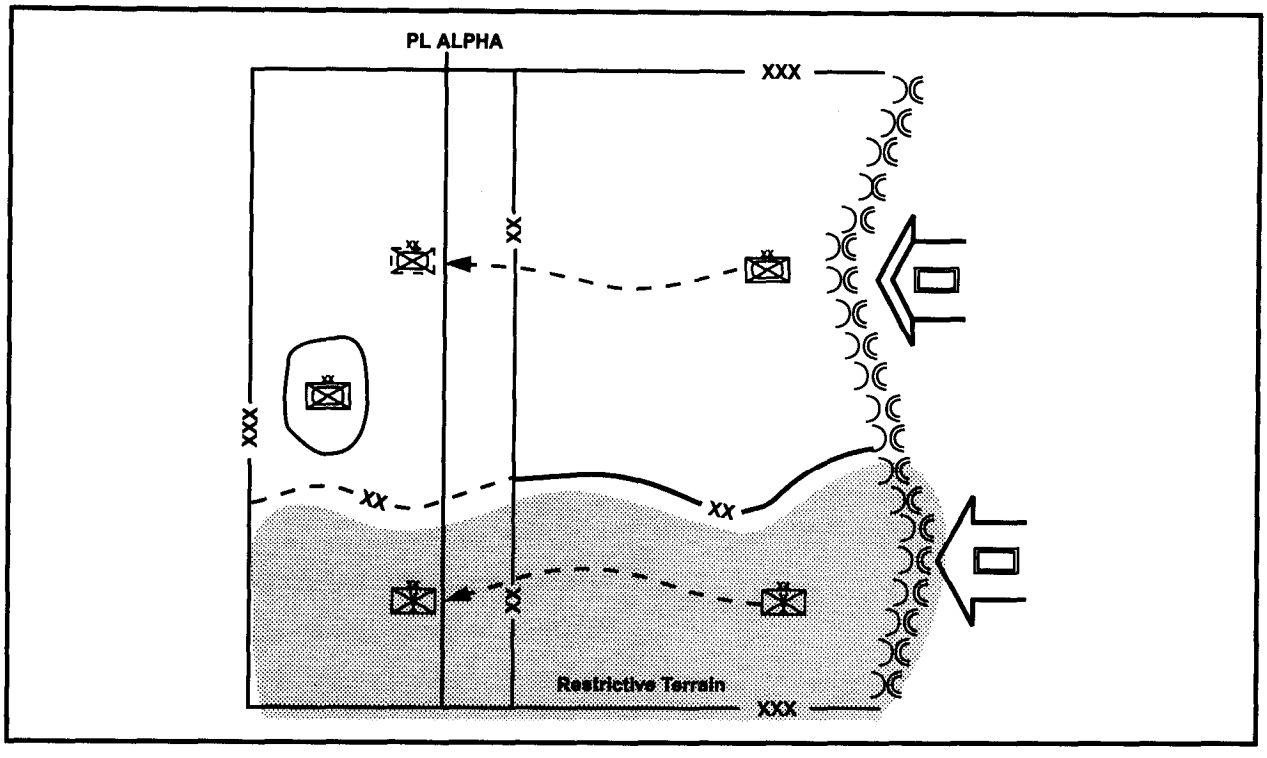


Figure 6–1. Retrograde operations: corps situation

The current tactical situation and intelligence-reporting of the AASLT division indicate that the division is maintaining an effective capability to conduct close operations. However, it has limited ability to identify, locate, and engage deep targets. The enemy is not currently attempting to penetrate defensive positions in the division AO, but continues to apply pressure through indirect fires and small-unit attacks.

Maneuver

The AASLT division commander's concept for the withdrawal involves organizing a covering force and a main body (Figure 6-2). The covering force's mission is to prevent interference with the withdrawing main body and to deceive the enemy as to the division's intent.

NOTE: See Figure 6-3 for the covering force's task organization.

Deep Operations

The corps continues to conduct deep operations to support withdrawing forces. The intent of the corps' deep operation is to create conditions under which the divisions can withdraw while avoiding decisive combat under unfavorable conditions. The corps must prevent enemy forces from exploiting the opportunity that withdrawal of friendly forces presents.

Close Operations

The AASLT division covering force is a composite organization with three maneuver battalions, three AHBs, two artillery battalions, and two assault helicopter battalions under the aviation brigade headquarters. The three battalions come from the three brigades in contact, rather than all from one brigade, to minimize movement across the defensive front.

The covering force simulates normal activity to deceive the enemy and to protect the withdrawal of the main body to the rear. Covering force units continue aggressive patrolling, normal radio traffic, and vehicle movement.

The covering force prepares to fight a delay to permit withdrawal of the main body. Attack helicopter battalions use mobility to make limited

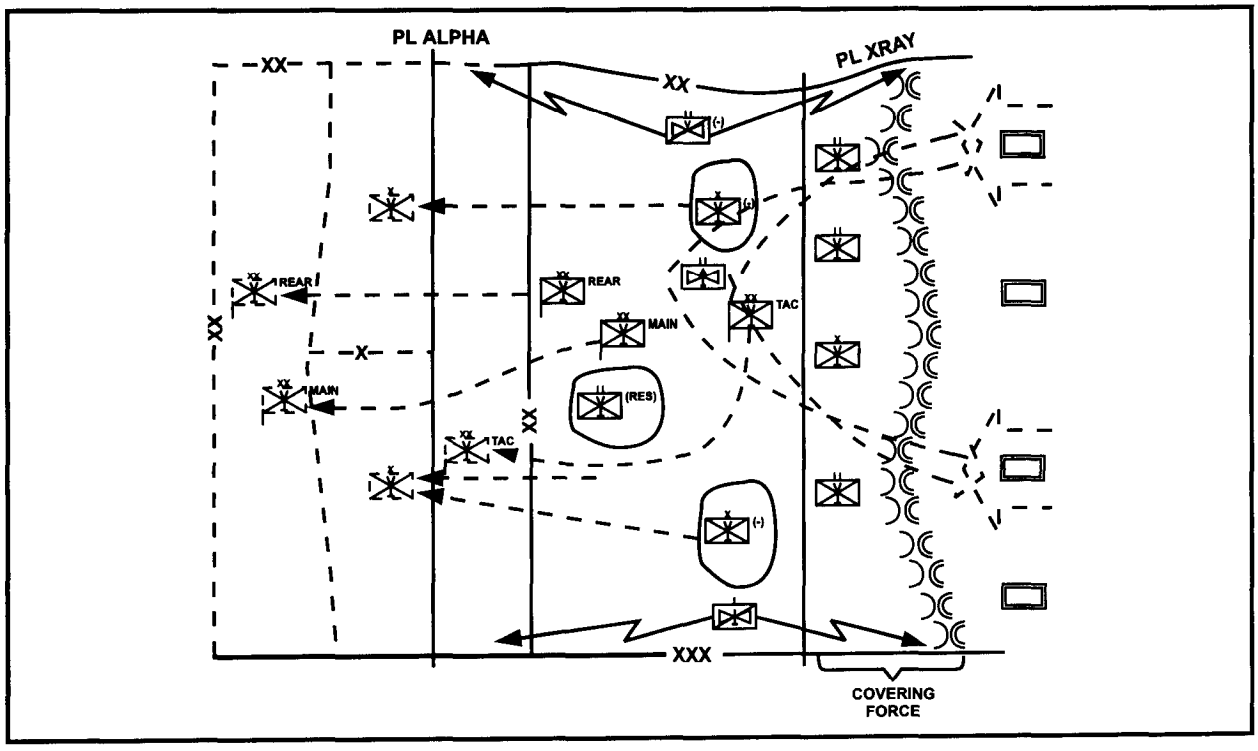


Figure 6–2. Retrograde operations: division maneuver

objective spoiling attacks to disrupt enemy offensive operations, enabling the withdrawal to proceed with minimum interference.

Units forming the division main body retire with as much stealth as possible to designated assembly areas behind the covering force. They move on designated routes from the assembly areas to PL ALPHA and begin preparing positions to resume the defense.

The division uses air and ground transportation (division assets and corps augmentation) to speed the withdrawal while maintaining secrecy. The division controls movement of withdrawing units by designating priorities, times, and routes of withdrawal from assembly areas. The withdrawal sequence is—

- Combat service support units.
- Field artillery not in support of the covering force.
- The main body.
- The covering force.

Withdrawal operations normally occur at night, The withdrawal plan includes a corps deception plan which portrays the force continuing the defense in current positions. The withdrawal plan also includes contingency plans (CONPLANs) for the covering force or main body to delay or defend short of PL ALPHA.

On order, the covering force withdraws by conducting a series of delays after the main body disengages or at a predesignated time and place. If the deception is successful, the covering force remains in position, delaying its withdrawal to prolong the deception.

– Bde HHC
– Inf Bn
– Inf Bn
– AAHB (OPCON)
– FA Bn (105-mm (T)) (DS)
– FA Bn (105-mm (T)) (R)
– FA Btry (155-mm (T)) (R)
– Engr Co (L)
– Cbt Engr Co (OPCON)
– Cml Co (Smk/Decon)(-)(DS)
– ADA Btry (DS)
– MI Co Tm (DS)

Figure 6–3. Retrograde operations: covering force task organization

When the covering force withdraws, it conducts a rearward passage of lines through the new defensive positions and moves to a designated reserve position. Since there is a significant mobility differential between the adjacent division's covering forces, synchronizing the withdrawal is critical. This minimizes the possibility of creating a gap between the divisions which the enemy could exploit.

Rear Operations

Combat service support elements displace early, leaving only those elements necessary to support the main body's withdrawal and the covering force's fight. Units already in the rear move to new positions while conducting routine operations. Military police conduct reconnaissance of withdrawal routes and establish TCPs, as required, to control movement.

Security Operations

The cavalry squadron screens the covering force's flanks if there is no friendly adjacent unit for the covering force to tie in to. If there is a friendly adjacent unit on the flank, the cavalry squadron assists the covering force's requirement to maintain contact with the adjacent covering force. This prevents gaps between defending friendly forces.

Reserve Operations

Normally, divisions do not designate a reserve force for the withdrawal, although brigades may designate reserves. The division attaches the battalion initially designated as the division reserve to a brigade and moves during the withdrawal to PL ALPHA to establish the new defense. After the covering force conducts a rearward passage of lines, it moves to an assembly area and assumes the mission of division reserve.

Intelligence

After receiving the warning order to withdraw, the G2 directs an update of the IPB. The IPB identifies NAIs, TAIs, DPs, and a series of delay positions that maximize the natural defensive value of available terrain.

The G2 focuses his efforts initially on monitoring indicators that provide early warning for the commander if the enemy discovers the withdrawal before it is complete. He adjusts collection and R&S plans as needed and provides intelligence updates to the covering force S2.

The G2 ensures division intelligence asset coverage includes both covering force and new defensive position requirements. Division-controlled EW assets are well-forward to support the covering force fight and the deception plan.

Electronic warning assets include communications interceptors and direction-finders. The G2 plans Quick Fix C&J and coordinates with the MI battalion to execute the plan.

Before withdrawing, the division emplaced two division LRSTs as stay-behind elements. They positioned REMBASS strings on avenues of approach into the division sector and along potential parallel flanking routes.

Together, these assets assist in early warning and targeting for the main body's withdrawal and for the covering force. They aid defense and future offensive operations.

Information from LRSTs and in-place sensors goes directly to the covering force S2. All other MI assets support defensive operations at PL ALPHA. The G2 coordinates with flanking units and corps for additional intelligence and sensor coverage.

Fire Support

Fire support assets provide a combat multiplier to the division covering force. Two 105-millimeter FA battalions and the 155-millimeter battery provide support.

The covering force FSE plans and coordinates fires to support the battle. Should the enemy attack before the withdrawal is complete, the FSE uses fire support assets to slow the enemy's advance, cover obstacles with fire, support spoiling attacks, and provide final protective fires. The FSE also plans smoke to mask the movement of friendly forces and places FASCAM along enemy avenues of approach into the division sector.

The corps smoke and decontamination company provides smoke support along withdrawal routes, flanks, and in assembly areas. Covering force

artillery disengages by echelon. The division FSE coordinates with the corps for fires during disengagement, including TACAIR and GS-R artillery.

Air Force CAS aids the withdrawal and the covering force by engaging and disengaging the enemy. Close air support helps in limited objective counterattacks and provides the covering force commander responsive air support to influence close operations. The division also plans for use of EA to deceive the enemy and to disrupt his C^2, slowing his reactions to the withdrawal.

Mobility and Survivability

The engineer priority is to mobility and survivability during the withdrawal and at new defensive positions. Engineers also prepare point obstacle targets behind the covering force to support the withdrawal.

Corps smoke assets provide smoke support to the obstacle emplacement. Engineers also prepare successive hasty firing positions for covering force artillery as it withdraws. They also maintain routes to the rear to aid the withdrawal.

Covering force engineers include an attached light engineer company and an OPCON corps combat engineer company. Their priority is to mobility for the withdrawal and survivability to close prepared obstacles as the covering force delays to the rear.

Air Defense

The ADA battalion provides area protection to support withdrawal of the main body and the covering force. In this example, the ADA battalion provides a DS Stinger battery to the covering force.

Remaining ADA assets are in GS to the main body. The ADA battalion coordinates coverage with corps and adjacent divisions to ensure continuity of ADA protection.

Combat Service Support

Priority of CSS is Class V supplies and MEDEVAC support to the covering force. Division and brigade CSS elements displace to the rear before combat elements begin the withdrawal. DISCOM positions evacuation equipment at critical locations along withdrawal routes.

As possible, the division evacuates command-controlled items and destroys other supplies and equipment (except medical) which cannot be withdrawn. Units evacuate wounded personnel as early as possible.

Battle Command

The TAC CP remains forward to control and support the covering force. As the covering force withdraws, the TAC CP withdraws. The TAC CP maintains the status of the division's withdrawal, the situation of adjacent units, and the corps' situation to ensure continuity of effort during the corps operation.

The main CP—

- Commands and controls the withdrawal of forces not in contact.
- Displaces by echelon with the main body.
- Supports the withdrawal.
- Plans for the resumption of the defense.
- Manages the execution of actions necessary to resume the defense.
- Synchronizes corps and division assets (including fire support, ADA, engineer, and smoke support for resumption of the defense).
- Coordinates for the withdrawal of the covering force.

The rear CP displaces to the rear early in the withdrawal. It manages terrain and controls movement in the division rear area and behind PL ALPHA. The division exchanges liaison personnel with corps headquarters and flank units to maintain synchronization.

FORWARD PASSAGE OF LINES

During tactical operations, the AASLT division may have to conduct a forward passage of lines through another division. The division normally conducts passage through another unit—

- To perform an infiltration.
- To exploit tactical success.
- To serve as a corps counterattack force when the tactical and/or environmental situation is not

conducive to the division's use of its tremendous aviation capability.

The passage of lines is an operation designed to facilitate another tactical operation. The division's task organization supports the primary tactical mission. Centralized planning and execution characterize passage of lines operations.

When required to move via ground transportation, the division normally uses multiple passage lanes through a defending unit. This technique supports decentralized movement of units and the division's capability to infiltrate and remain undetected. In-place unit assets support the passage.

NOTE: See FM 71-100-2 for a detailed description of a forward passage of lines.

LINKUP OPERATIONS AND SCENARIO

The division plans, coordinates, and synchronizes linkup operations to join other friendly forces. Both forces may be moving toward each other, or one may be stationary.

Linkup operations may be part of an offensive or defensive operation. The division conducts linkup operations—

- To complete encirclement or envelopment of an enemy force.
- To assist in the breakout of an encircled friendly force.
- To join an attacking force with a force inserted in the enemy rear.

In Figure 6-4, the AASLT division conducts a supporting attack by infiltration and air assault into the enemy rear. Its mission is to seize key terrain and disrupt the enemy's C^2 and logistics supporting the corps attack.

The mechanized division attacks through enemy defenses, links up with the AASLT division, and passes through it. Following linkup, the mechanized division continues the attack and the AASLT division conducts follow and support operations.

Intelligence reporting indicates the corps is attacking a depleted enemy force whose supporting fires are lessening in intensity. (Friendly forces have air superiority.) The enemy is having difficulty maintaining a coherent defense. The enemy can counterattack with up to a regimental-size force.

The corps order designates control measures for the linkup. The corps establishes PL FAR, PL MIDDLE, PL NEAR, PL CLOSE, and PL AWAY as well as fire control measures, including FSCLs and an RFL.

The mechanized division establishes CFLs. The AASLT division, as the stationary force, designates and coordinates primary and alternate linkup points on the boundary where the forces meet. Linkup points are on identifiable and defendable terrain which provides escape routes.

The two divisions exchange as much information as possible before the tactical operation. Representatives meet to coordinate—

- Command relationships before, during, and after the linkup.
- Fire support.
- The implementation of control measures.
- Planned routes to linkup points.
- The location and description of primary and alternate contact points, linkup points, passage points, passage lanes, and release points.
- Recognition signals and communications procedures.
- Exchange of liaison personnel.

Maneuver

The division coordinates, synchronizes, and executes the linkup operation concurrently with other operations without losing momentum. The division's primary mission is to seize key terrain to expedite and facilitate the forward passage of the corps main attack.

Following linkup, the AASLT division passes the mechanized division through its sector and reorients for its follow and support mission. The linkup is not the primary mission of either division, but is critical to the corps operation's overall success.

The AASLT division commander designates one brigade to coordinate and conduct the linkup. The division authorizes the brigade to coordinate

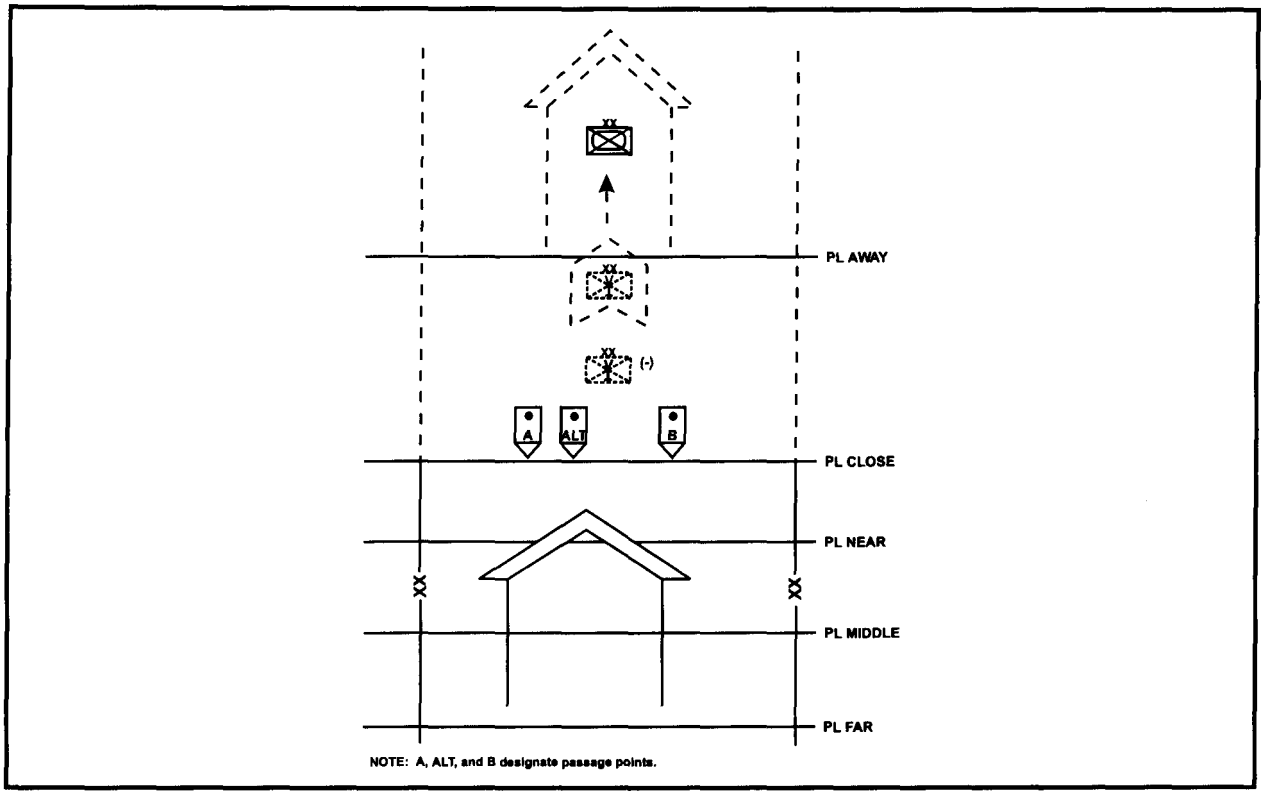


Figure 6–4. Linkup operations: corps situation

directly with the mechanized division's cavalry squadron, its designated linkup unit. Units should—

- Exchange liaison personnel.
- Coordinate communications.
- Exchange signal operation instructions (SOIs).
- Verify day and night and near and far recognition signals.
- Provide their division the specifics of linkup plans.
- Coordinate fires, intelligence, and obstacles.

As the mechanized division reaches PL MIDDLE, its cavalry squadron moves to linkup points and initiates linkup with the AASLT brigade (Figure 6-5). The AASLT brigade expedites the passage of lines by opening lanes or corridors, breaching selected obstacles, and furnishing guides.

The mechanized division completes the passage and moves toward the corps objective while the AASLT division secures the corps LOC. Both divisions prepare to conduct a hasty defense at any point throughout linkup, passage, and subsequent operations.

Intelligence

To support the linkup, the division G2 employs sensors near linkup points to identify enemy movement toward the division's position. Both divisions and corps must closely coordinate EW plans to preclude interference as the mechanized division converges with the infantry division.

Fire Support

Fire support coordination measures are critical to the linkup of converging forces. In this example, as the mechanized division moves closer to the linkup points, both divisions increase positive fire control to avoid firing on each other.

The mechanized division establishes an initial coordinated fire line (CFL 1). As it nears PL FAR, it terminates CFL 1 and puts CFL 2 into effect (Figure 6-6A). The mechanized division

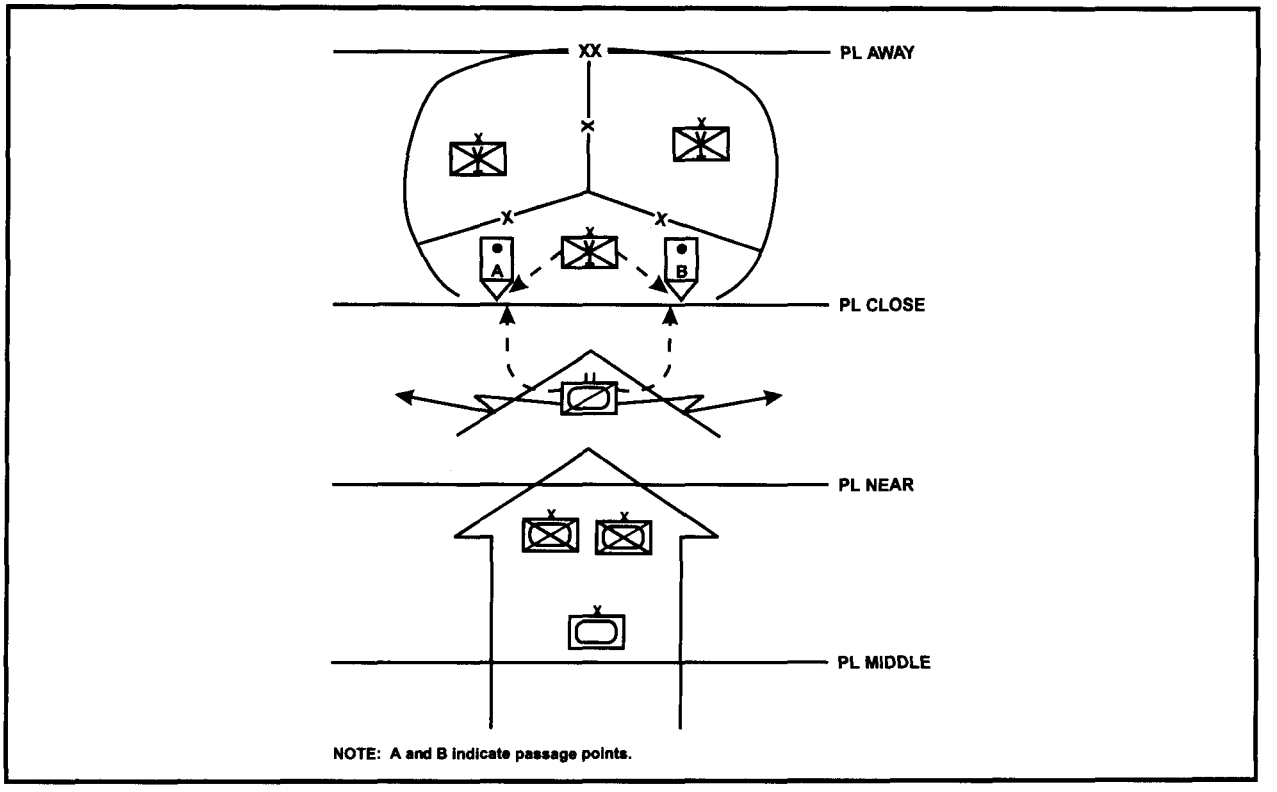


Figure 6–5. Linkup operations: maneuver

coordinates CFLs with the AASLT division to control AASLT division fires in the direction of the mechanized division.

As the mechanized division approaches PL NEAR, the corps establishes an RFL at the boundary between the two divisions. The mechanized division terminates CFL 2 and establishes CFL 3, which includes both division areas (Figure 6-6B).

Mobility and Survivability

The AASLT division and its engineers coordinate with the mechanized division before emplacing obstacles between PL CLOSE and the AASLT division boundary in case maneuver within the area becomes necessary. The division engineer plans FASCAM (if available) on enemy avenues of approach into the division's AO.

However, during planning the division engineer must ensure FASCAM employment will not interfere with the mechanized division's linkup, passage, or future operations. He must also coordinate restrictive control measures for FASCAM near friendly forces.

Air Defense

The corps establishes ADA coordination and restrictive fire measures by phase line as the divisions converge. Converging ADA systems coordinate identification requirements and cover the gap between forces. On linkup, both divisions coordinate ADA coverage for area protection.

Battle Command

The divisions integrate coordination and planning for linkup into their planning for the offensive operation. The corps order establishes command relationships, control measures, and responsibilities between the linkup units. The mechanized division commander assumes tactical control (TACON) of the AASLT division when the mechanized division crosses PL MIDDLE.

Following successful linkup of the converging forces, the linkup operation becomes a passage of

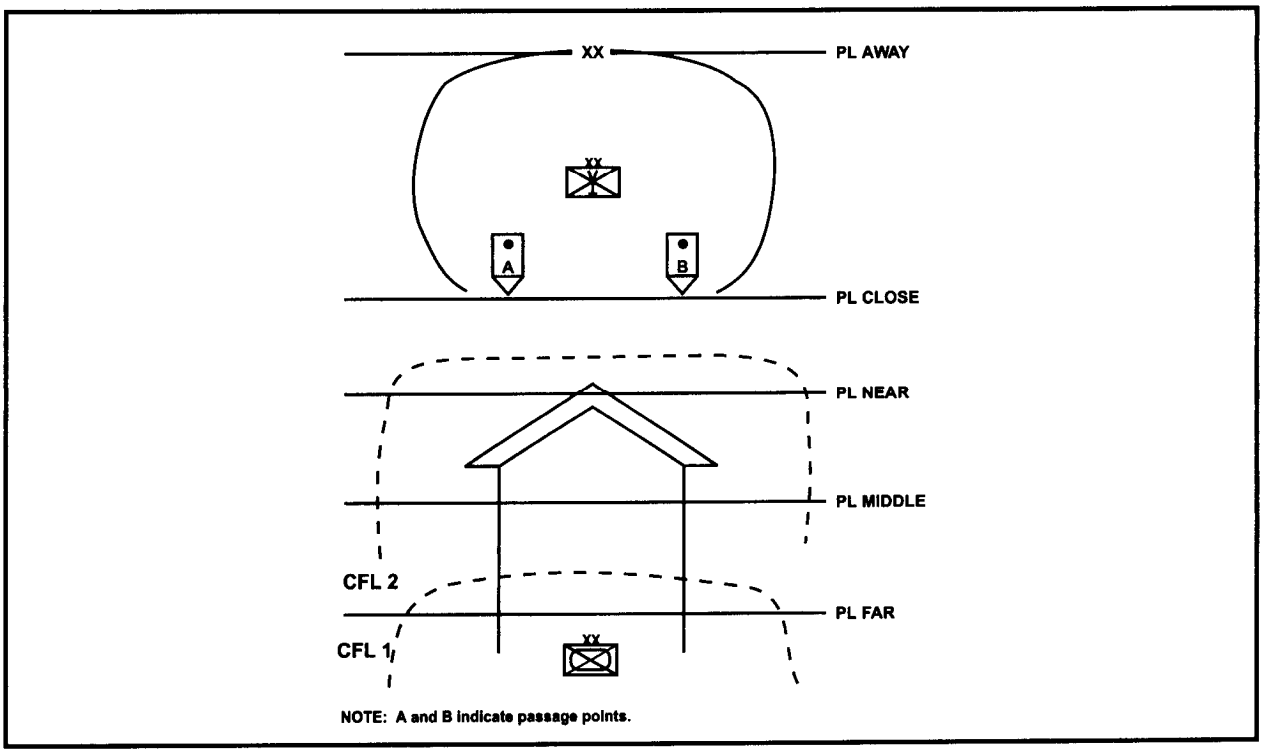


Figure 6–6A. Linkup operations: fire support, phase 1

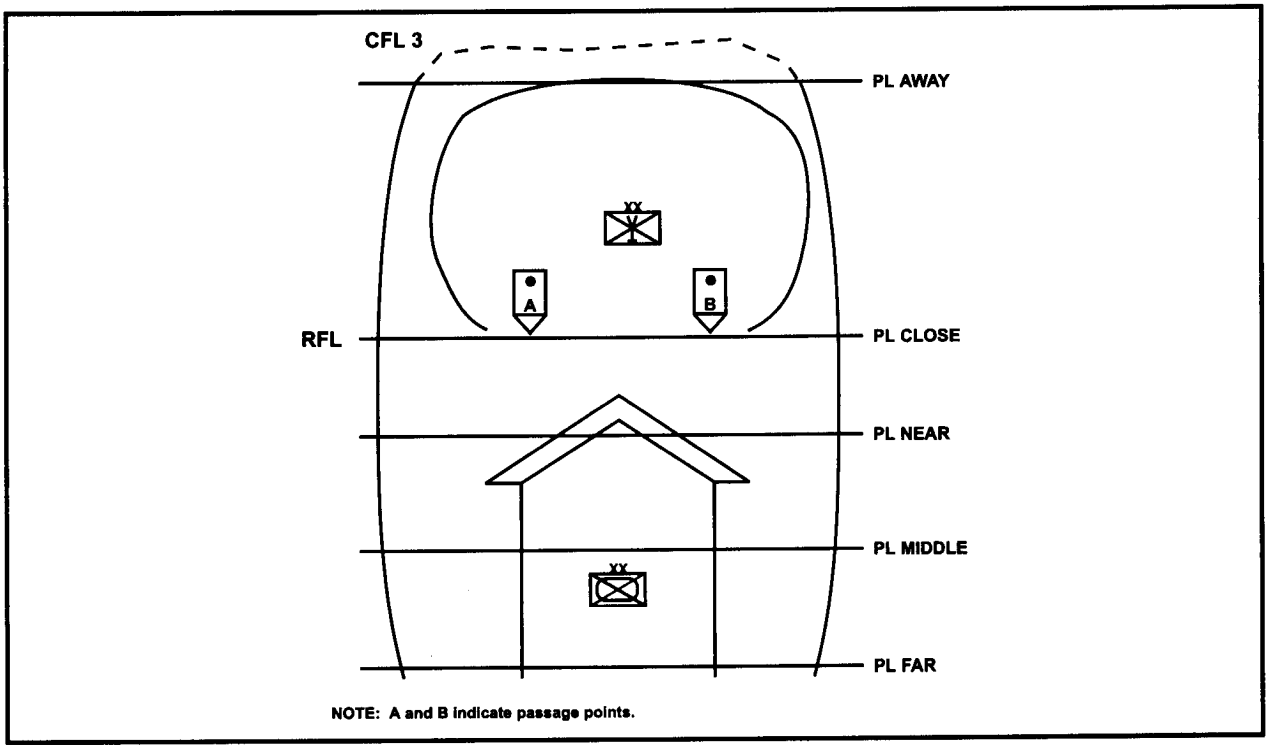


Figure 6–6B. Linkup operations: fire support, phase 2

lines for the mechanized division. The divisions must plan equally well the specifics of this critical operation to provide for the continuous protection of both forces.

BREAKOUT FROM ENCIRCLEMENT OPERATIONS AND SCENARIO

Because of the nonlinear nature of the modern battlefield, the division may have to fight while encircled. Encirclement occurs when the enemy cuts off the division's ground routes of evacuation and reinforcement or forces an AASLT into the enemy's rear area.

Combat operations for an encircled division are difficult. The division may respond in several ways.

First, the division can stay in position and defend. It may be able to inflict damage on the enemy, divert an enemy attack, restrict enemy maneuver and logistic support, acquire intelligence, or even capture objectives to support other operations. However, these may have only limited effect, and the enemy may render the division combat-ineffective or destroy the division completely.

Second, the division can attack to breakout of the encirclement and link up with friendly forces. This allows it to support a corps deception plan, interfere with the enemy's C^2 structure or allow the corps to use it elsewhere. However, the division may link up in a depleted condition and be of no use until the corps reconstitutes it.

Third, the division can exfiltrate by small groups. This is the least preferred option, but it is preferable to capture and may divert the enemy's attention and provide intelligence for higher headquarters.

The division's response to encirclement depends on the situation and the higher commander's intent. The corps commander (or division commander when communications fail) makes an early decision as to the encircled division's mission and objectives.

Figure 6-7 shows the division defending in restrictive terrain as an economy of force operation for the corps. Enemy maneuver elements bypassed division defensive positions and pushed back other corps elements. Enemy infantry cut division ground routes of evacuation and reinforcement. The encirclement contains most division maneuver, CS, and CSS units.

The corps commander directs the division to conduct a breakout from encirclement and to link up with other corps forces. This keeps the division as an intact maneuver unit for future corps operations. The division plans, organizes, and executes a breakout from encirclement with available forces before the enemy can analyze intelligence information and react by reinforcing the encirclement and perhaps taking away the breakout option.

Current division tactical situation and intelligence reporting indicate the enemy used minimum combat and CS forces to fix the division. He may not know his force has encircled the division and has insufficient forces to completely encircle the division.

Gaps currently exist in the encirclement. The situation and intelligence also indicate that—

- The enemy is moving forces to reinforce his operation, and enemy reconnaissance elements are actively conducting R&S operations.
- The division can communicate with higher and lower units.
- Weather is marginal, but allows use of AF and AH assets.
- The corps will conduct a supporting attack at the same time as the division breakout.

Maneuver

The division commander's concept is for the division to attack as soon as possible by employing a rupture force to infiltrate enemy positions and to attack to create a gap (Figure 6-8A). The remainder of the division defends the perimeter during the rupture, fights a delaying action, then withdraws from the perimeter through the rupture (Figure 6-8B). The division continues the attack through the enemy to link up with other corps assets.

While planning for the breakout, the division defends on the most defensible terrain, holding the entire perimeter. The division may reduce the perimeter to maintain a strong defense; however, it must maintain room for maneuver.

The division employs reconnaissance elements to determine enemy strengths and weaknesses near the planned breakout point. It conducts

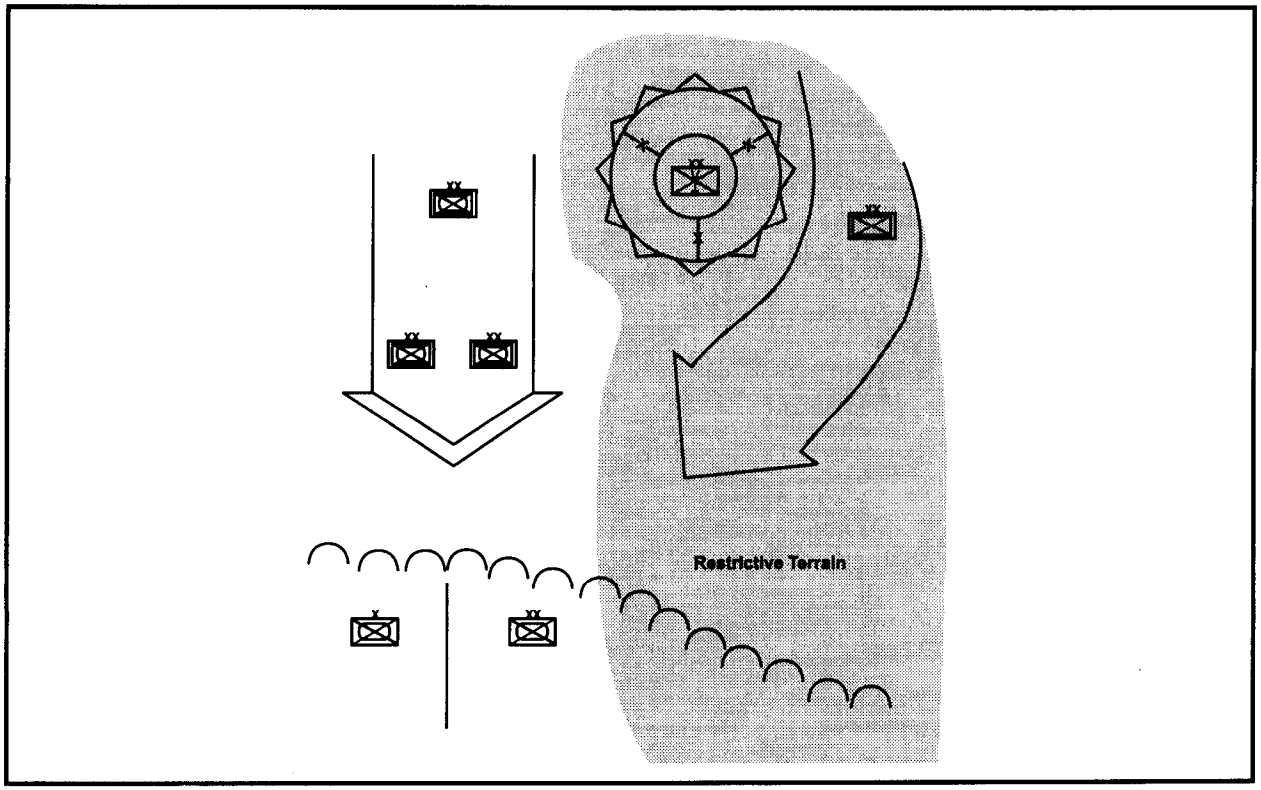


Figure 6–7. Breakout from encirclement: corps concept of operations

counterreconnaissance operations to deny the enemy information on friendly breakout plans.

The division selects the rupture location and routes of march that avoid enemy strengths, increasing the chance for surprise. The route selected may not be direct; it may be over less favorable terrain.

The division avoids the most obvious route toward friendly lines unless there is no alternative. However, the division may use the most obvious route for a diversionary attack.

The division coordinates with the corps for supporting attacks by other available corps forces to support the breakout. The division coordinates linkup points before the breakout or during the breakout by lead or security elements.

Early on, if possible, the division orders the evacuation of the aviation brigade to the corps rear area. If it is still a viable force, the division uses it to support the breakout and movement to link up.

The division plans for and, if available, employs TACAIR support for the breakout operation. If it has sufficient forces, the division organizes a diversionary attack before the real breakout attempt. The division uses the task organization in Figure 6-9 for the breakout.

Deep Operations

The division relies primarily on corps artillery and aviation assets to conduct deep operations. When possible, the division attacks enemy uncommitted forces and rear installations to disrupt enemy operations. The corps must prevent enemy reinforcements from linking up with enemy encircling forces or attacking into the flanks of the division as it breaks out.

Close Operations

A rupture force, a two-battalion infantry brigade, infiltrates enemy defenses. It attacks enemy positions, creating and widening a gap, and holds the shoulders of the gap until all encircled forces complete their move through the rupture. An assault force follows the rupture force and moves through the gap to continue the attack to the linkup point.

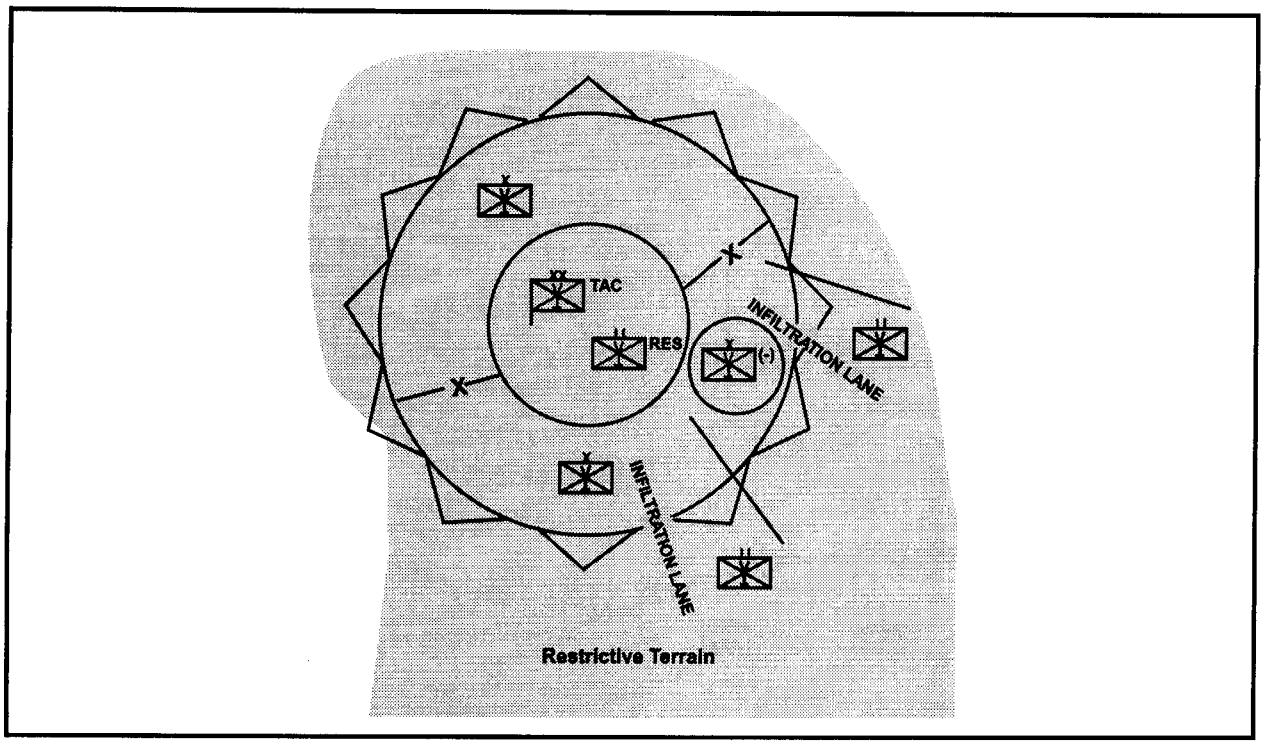


Figure 6–8A. Breakout from encirclement: maneuver

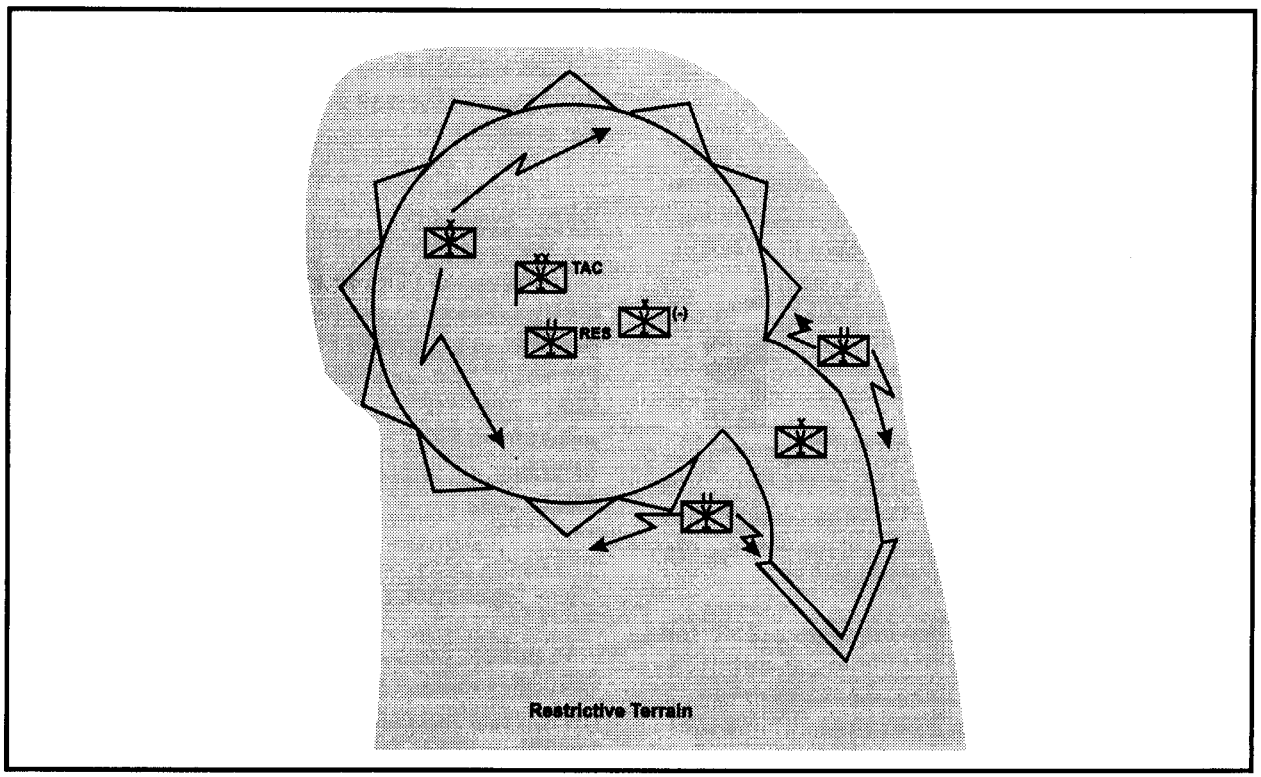


Figure 6–8B. Breakout from encirclement: maneuver

Rupture Force	**Main Body**
—AASLT Bde (-)	Div HQ
—Engr Co (L)	DISCOM Units
AASLT Force	DIVARTY HQ
—AASLT Bde	—ADA Bn
—FA Bn	—Engr Bn
—FA Bn	**Reserve**
—Engr Co (L)	—AASLT Bn
Rear Guard	

Figure 6–9. Breakout from encirclement: task organization

The main body, made up of the remaining combat forces, CP elements, and CS and CSS elements, follows the assault force. The rear guard provides security, following and protecting the main body.

The division must mass overwhelming combat power to generate momentum at the breakout point. It takes risks at other points on its perimeter to ensure the breakout's success.

If the division does not maintain the momentum of the breakout, it will be more vulnerable to destruction than before. Breakout forces use all routes available.

The breakout plan should exploit darkness and limited visibility. However, the division should not wait for conditions of reduced visibility if it would allow the enemy to consolidate or reinforce the containment. If available, smoke from the corps chemical company should conceal the breakout or support the deception plan.

Rear Operations

The division integrates CS and CSS elements that did not evacuate earlier throughout the main body for protection during the movement.

Security Operations

Main body elements provide flank security. The rear guard fights a vigorous delaying action on the perimeter to ensure no part of the division is cut off. The rear guard disengages from the defense and passes through the rupture.

The rupture force secures the penetration until passage of the rear guard. It then disengages and assumes the rear guard mission.

Reserve Operations

The division designates an AASLT battalion as reserve for the breakout. Initially, the reserve is in the center of the encirclement to allow it to quickly react to a penetration at any point in the perimeter. It then moves with the main body through the rupture.

Intelligence

The G2 employs all available intelligence assets to obtain current information on enemy strengths, dispositions, and intentions around the division and especially between the encircled division and friendly forces. He also determines potential breakout points based on both terrain and weaknesses in the enemy's encirclement.

To expedite operations, LRSTs infiltrate where they can observe specified NAIs before the breakout begins. All encircled units conduct counterreconnaissance to mask friendly intentions and actions.

Fire Support

Fire support assets must rapidly react to changing conditions in the encirclement. They must support the defense, the breakout, rear guard operations, and the movement to linkup. Field artillery battalions continue to provide support to brigades, but must be responsive to division requirements.

The division establishes on-order missions to maximize firepower at critical times and establishes fire support execution matrixes for key events such as breakout and disengagement fires. During the breakout, fire support must be centralized to ensure the maximum amount of combat power is focused at the breakout point.

In the initial defense, the division positions artillery to allow rapid shifts of fire and DS for large parts of the defensive perimeter without displacing to new positions. DIVARTY distributes artillery throughout the encirclement to limit its vulnerability to counterfires.

During the breakout, the division employs massed, continuous fires to open the rupture point, suppress enemy direct-fire systems, and isolate the breakout from the enemy. Once the rupture brigade achieves the rupture, priority of fires shifts to the rear guard action if sufficient fires are available to support the momentum of the breakout. Field artillery assets provide continuous fire support to each breakout force during the breakout and subsequent movement to link up with friendly forces.

The division—

- Coordinates fire support from outside the encirclement.
- Establishes an RFA around encircled forces and then a series of CFLs as it moves toward the linkup point.
- Coordinates electronic attack to disrupt enemy communications during the breakout.
- Plans disengagement fires for the rear guard; TACAIR support and Army aviation assets support the disengagement.

Mobility and Survivability

Initially, the priority of engineer work is survivability, then mobility. Engineer assets reinforce defensive positions and plan and emplace obstacles to support both the defense and the breakout. They plan FASCAM on the shoulders of the rupture point and along the most dangerous enemy avenues of approach.

The division task-organizes engineers into obstacle-breaching teams under the control of maneuver units. Engineers support the rear guard by emplacing obstacles during the reduction of the defensive perimeter. Engineers with the rear guard close obstacles.

Air Defense

Division ADA elements protect key assets according to priorities the ADA commander and G3 develop and the division commander approves. Priorities for breakout include fire support assets and aviation support areas.

Within these specific priorities, an ADA battery provides DS to the rupture force. A gun platoon and a Stinger section provide DS to the rear guard. The ADA employment plan complements SEAD operations in support of the breakout.

Combat Service Support

As soon as encirclement by the enemy appears inevitable, the division uses open LOCs to evacuate casualties and all nonessential staff, CS, and CSS personnel and equipment. The division places organic and supporting encircled CSS assets under centralized control. When required, elements of CS and CSS units increase the strength of division fighting units.

Unit personnel bury the dead they cannot evacuate before encirclement in hasty, properly marked graves. Wounded soldiers have priority on transportation assets. If they cannot be moved, critically wounded soldiers are left behind with limited medical personnel, supplies, and equipment.

The division breaks out with only those items of equipment and supplies essential to the mission that can be transported on available vehicles. Units destroy all weapons and equipment (except medical) they cannot fully man or support.

Military police enforce traffic control within the defensive perimeter to ensure order and discipline and to prevent panic. Strict rationing and supply-economy conserve limited resources and combat power. The division distributes Class III and V supplies weighted to the priority of effort.

Battle Command

The commander directs subordinate commanders to reestablish or reinforce the chain of command as necessary before the breakout. Subordinate commanders reorganize to form tactically strong units.

If possible, the division coordinates before the breakout for linkup and passage through friendly elements. It maintains liaison and coordination with higher and lower headquarters. The division establishes measures to control movement and to hand over rear guard responsibilities to the rupture force.

The TAC CP locates behind assault forces. Remaining elements of the rear and main CPs collocate within the main body.

The commander must recognize the importance of morale and the potential for despair encircled soldiers will experience. In turn, soldiers must trust in their leaders' competence. The commander must disseminate information quickly throughout the command, ensure command presence at DPs, and ensure that an effective casualty evacuation system is in place.

Encircled forces will likely suffer significant casualties and loss of equipment while encircled, during breakout, and during movement toward friendly forces. Detailed planning and swift, violent execution minimize losses.

INFILTRATION

Infiltration is a valuable offensive capability in support of tactical operations. Units conduct infiltration operations to posture a unit for an attack or in support of deception, guerrilla tactics, and intelligence collection.

Forces use infiltration to move through enemy-held areas to positions of advantage in the enemy's rear. From there, they use other forms of maneuver to attack assigned objectives.

Infiltration is not like a penetration where units exert maximum combat power to pass through an enemy defense. Infiltrating units seek to avoid enemy defenses and pass unnoticed through gaps in their defense. Units then posture to attack LOCs, support units, installations, or other objectives in the rear of the forward defense areas, or to seize key terrain to facilitate other operations.

Units also infiltrate to conduct raids, block or control key communications nets, destroy bridges, erect barriers, harass enemy logistic operations, conduct feints or demonstrations for deception, or engage in any of a number of intelligence-collection activities. Units may use infiltrating forces to provide accurate target information or an eyes-on targeting capability.

NOTE: See FM 71-100-2 for a more detailed discussion.

MOVEMENT OPERATIONS

Division movements ensure units arrive at the right place at the right time and can accomplish their missions. The AASLT division, without augmentation, normally conducts most of its tactical movement via organic helicopters. When augmented with corps or JTF assets and/or an armored force, ground movement plays a larger role.

Divisions deployed to a combat theater of operations execute either administrative or tactical movements. Between a point of debarkation and a corps or JTF rear area, units conduct administrative movements.

Units organize troops and vehicles to expedite movement through an area to conserve time and energy when no enemy interference, except by air, is anticipated. Between the corps or JTF rear area and the forward units, or when contact with the enemy is anticipated, units conduct tactical movements.

In a tactical movement, elements are organized to facilitate combat. The G4 plans and supervises administrative movements. The G3 plans and supervises tactical movements.

The division moves in five phases. Phase one includes movement of reconnaissance squadron elements, the MP company, the ADA battalion, and the engineer battalion. They conduct reconnaissance and prepare the route for movement. Phase two includes movement of C^2 elements, ground maneuver brigades, DIVARTY, and battalion quartering parties of subordinate units. Phase three includes movement of the rear CP, and quartering parties of the DISCOM, aviation brigade, and their battalions and companies. Phase four is the movement of the division main body. Phase five is closure of support elements along the march route.

Tactical Road March

The AASLT division normally executes tactical movements via organic aviation assets. However, there may be times when, based on METT-T, the division conducts a ground tactical movement. On these occasions, the division plans, prepares, and executes tactical road marches as part of a corps or higher echelon operation.

Planning considerations for a tactical road march include—

- Missions on arrival and dispositions that best accomplish those missions.
- The nature and extent of probable enemy interference.
- The present unit disposition.
- Available routes.
- March rates of elements.
- Time intervals between units.
- Obstacles and choke points along the route.
- The impact of darkness or limited visibility.
- The flexibility and vulnerability of the drawn formation.
- Route sweeps and clearances needed.
- The degree of tactical control.

The mission following the move affects routes selected as well as march organization. Following the tactical road march, units either move into assembly areas or tactically deploy to complete follow-on missions. Selection of routes and march organization expedite this.

The nature and extent of probable enemy interference impacts the organization of march units and security operations during the march. For example, an air threat may require pre-positioning AD assets along the route and at choke points.

A threat of route interdiction may require prepositioning additional engineer assets along the route of march. A threat from bypassed units or the threat of ambush may require units to increase reconnaissance and/or security forces along routes.

Routes and march organizations allow units to conduct an orderly move from their current locations to march routes. Units form into march organization and attain prescribed rates of march before entering the march route. Commanders and staffs must consider any changes to task organization, unit locations, and dispositions when selecting routes and march organization.

Available routes impact the march organization. The division normally plans multiple routes to allow more rapid completion of the move, to enhance dispersion, and to aid security. If multiple routes are not available, the division adjusts its march organization to a single route.

The division develops standardized march organizations for both single and multiple routes and includes these in the division SOP. Standardized march organizations increase speed and simplicity in planning, preparing for, and executing tactical road marches.

Route planning includes selecting a start point (SP) and a release point (RP). The SP provides a common point for beginning integrated movement. When the division uses multiple routes, each has an SP.

The SP should be easily recognizable on both a map and on the ground, but not be in a defile, on a hill, or at a sharp curve. It should be far enough from assembly areas to allow units to organize and attain the prescribed march rate when they reach it. Units must not move early or late to SPs; doing so will create congestion.

The RP provides a common point for units to revert to their commanders' control. Like the SP, the RP should be easily recognizable on both a map and on the ground. It should not cause a unit to countermarch or go through other units to reach. Guides meet units as they arrive at the RP to guide them into their assembly area, or units deploy tactically for the follow-on mission if applicable.

When selecting routes, the G3 selects critical locations along the route for checkpoints and TCPs from which to monitor and control progress along the route or routes of march. The G3, with the G4, plans halts and refueling points.

The G3 allows time for refueling, maintenance, and rest halts, selecting areas large enough to accommodate multiple march units. He also specifies alternate (on-order) holding areas for emergencies. Doing so simplifies moving march units off the route of march if necessary.

Rates of march are important and vary with road and terrain conditions. Wheeled vehicles in column travel at the optimum speed of the slowest vehicles.

Factors determining rates of march are-

- Grades, sharp turns, cities, towns, and other restrictions.

- Surface conditions, such as dust, ice, mud, and snow.
- The condition of drivers and crews, including training and experience.
- The condition of vehicles.
- Visibility conditions.

Units temper rates of march for foot troops by considering soldier loads and the terrain. As a rule, the total distance soldiers march in 6 hours decreases by 2 kilometers for every 10-pound increase in soldier load over 40 pounds (Figures 6-10 and 6-11).

A second factor affecting rate of movement is terrain gradient. March gradients in excess of 10 percent reduce distances traveled by up to half. Exceeding these guidelines decreases unit effectiveness. Field Manual 21-18 provides additional information on speed marches.

The G3 controls the march by organizing the division into march columns, march serials, and march units. When planning the tactical road march, march units should be of a roughly uniform size.

Air assault battalions are the division's basic combat elements and are the principal building blocks for tactical planning. They are the first elements to consider when organizing for movement. To simplify planning, they march as serials in nearly equal-size time blocks. Some supporting units may precede the main body to establish refueling points, install communications, or prepare forward bases.

A serial of from 55 to 65 vehicles is about the size of an AASLT infantry battalion moving in 5-ton trucks and organic vehicles. The 55- to 65-vehicle serial is divisible into company-size march units. Its size is manageable for CSS commanders, movement planners, and traffic controllers.

Tactical control depends on the chain of command. The G3 organizes the force into manageable echelons which preserve unit integrity as much as possible. Movement groups, composed of vehicles from more than one unit, have a single commander.

The TAC CP controls division road marches. Division transportation and PM representatives normally augment the TAC CP during road marches to help with control.

	On Roads (kmph)		Cross Country (kmph)	
	Day	Night	Day	Night
Foot troops	4.0	3.0	2.0	1.0
Trucks, general	35.0	35.0 (lights) 16.0 (blackout)	10.0	6.0
Artillery, towed	35.0	35.0 (lights) 16.0 (blackout)	10.0	6.0

Figure 6–10. Average rates of march

Soldier Load (pounds)	On Roads (kmph)		Cross Country (kmph)	
	Day	Night	Day	Night
40	24	19	14	10
50	22	17	12	8
60	20	15	10	6
70	18	13	8	4

Figure 6–11. Degraded rates of march

Types of Marches

The G3 also considers the type of tactical road march to use—the day march, limited visibility march, forced march, or shuttle march. Each has its own strengths, weaknesses, and planning considerations. The division conducts each type either mounted or dismounted.

The division conducts the *day march* when there is little enemy threat. It permits faster movement and is less tiring for soldiers. Ease of control, dispersed formations, and reconnaissance characterize the day march. However, it is more vulnerable to enemy observation and air attack.

Closed formations; more difficult command, control, and reconnaissance; and a slower rate of march characterize the *limited visibility march.* However, it provides good concealment from enemy observation and air attack and exploits darkness to gain surprise.

Speed, exertion, and a greater number of hours marched characterize *forced marches.* They normally increase the number of hours marched rather than the rate of march. The division conducts forced marches only when tactically required because they decrease unit effectiveness.

Shuttle marches alternate riding and marching. Shuttling requires vehicles to transport troops, equipment, and supplies by a series of round trips with the same vehicles. Divisions can accomplish this by hauling a load an entire distance and then returning for another, or by carrying successive parts of a unit for short distances while conducting a foot march.

Planning

The G3 has staff responsibility for tactical road marches. The plans element at the main CP plans tactical road movements, and the TAC CP controls the march.

The rear CP supports the main CP during planning and the TAC CP during execution of the march by temporarily providing transportation and PM representatives to help control movement. The rear CP, with DISCOM and CSS representatives at the main CP, plans and coordinates march logistic support.

March Warning Order

Planning for tactical road marches begins with receipt of the corps order. As soon as possible, the G3 issues a march warning order alerting units of the impending move. The warning order contains as much information as the G3 can provide.

Based on the warning order, MSCs begin to plan, prepare, and conduct reconnaissance for the march. As additional information becomes known to the staff, they issue additional warning orders and FRAGOs.

Plan development for the tactical road march follows established planning considerations and culminates in a road movement plan or OPORD. The OPORD contains instructions for moving units from one location to another within a stated time. If conditions and time permit, information in the order includes—

- The destination and routes.
- The rate of march, maximum speeds, minimum speeds, and the march order.
- Start points and times.
- Halts, vehicle distances, and release points.
- Communications means.
- The commander's location.
- Strip maps.

The order also includes route or unit markers, TCPs, and checkpoints.

Staff Responsibilities

The G3 has staff responsibility for planning, preparing, and conducting tactical road marches. He prioritizes and allocates routes and resources and synchronizes the march.

When the corps or a higher headquarters directs the division to move, a corps order normally provides routes, times, assembly areas, and follow-on missions. The G3 plans element develops the division plan and movement tables, and determines movement priorities. Using standard march and task organizations in the division SOP reduces time required to plan, prepare, and distribute orders.

The G3 dispatches liaison teams to units whose AOs include the final location to which the division is moving. Liaison officers obtain information and coordinate movement and terrain requirements.

The G2 conducts an IPB for the march. He identifies possible enemy interference and key terrain for likely interdiction points during the march.

With the engineer terrain team, the DTO, and PM, the G2 develops and recommends to the G3 locations of TCPs. He also presents the effects of terrain, weather, and visibility on the rate of march.

The division FSE plans and coordinates fire support for the march. The FSE also coordinates with the rear CP of units through which the division will move and obtains existing and planned FSCM. It provides this information to the TAC CP's FSE to coordinate and clear fires during movement.

The ADA representative at the main CP coordinates AD protection with the corps and with units through which the division is to move. The air IPB and early warning frequencies and procedures from those units are key considerations. The division AD officer recommends to the G3 AD coverage to protect the division during the march.

The assistant division engineer (ADE), works with the G2, corps engineers, and the engineer

element of units through which the division will march. They develop and recommend mobility requirements for the march, including pre-positioning of engineer assets along the march route.

The ADSO integrates communications and information systems requirements to support the march. Requirements include signal support preceding march units for C^2 of the march and the follow-on mission.

The PM coordinates MP support for road movement, including placement of traffic control elements to assist in movement through choke points and critical areas where units could easily get lost. Military police may also assist in route signing to assist unit marches.

The NBC element coordinates NBC support, including using smoke in deception or concealment at choke points and route reconnaissance. The NBC element plans for locations and priorities of hasty and deliberate decontamination points. It coordinates with engineers against the effects of enemy nuclear or chemical attack on primary and alternate routes and route decontamination.

The A^2C^2 element coordinates airspace for the march, including the use of airspace to support route reconnaissance, aviation brigade displacement, and incorporation of existing and planned airspace coordination measures into the division order.

The rear CP coordinates logistic support. It prepositions CSS assets before movement and arranges for support from the corps, from units through which the division will march, and from the host nation. The rear CP also coordinates and integrates civil affairs.

Preparation

Preparation for the tactical road march begins during the planning process. After receiving the movement order from higher headquarters, the division begins reconnaissance, dispatches liaison teams to units through which the division will march, and requests required support and supplies from the corps. Other preparations include—

- Moving DTO and PM representatives from the rear CP to the TAC CP.
- Moving the TAC CP to control the march.
- Designating TCPs and the release point.
- Executing any task-organization changes.
- Unit preparations, including refueling vehicles, receiving and distributing supplies, and receiving and integrating any external support into march serials and units.
- Dispatching communications support packages to support C^2.
- Dispatching engineers; maintenance; and petroleum, oils, and lubricants (POL) support, if required.
- Reconnaissance by unit commanders from their positions to the start point.
- Dispatching unit quartering parties or guides.

Execution

The division executes the tactical road march according to its movement OPORD or SOP. Units move according to the movement tables minus the time required to reach respective SPs. Serial commanders monitor the march and submit reports to the TAC CP according to the division's SOP, OPORD, and/or tactical situation.

March discipline is necessary for uninterrupted movement and reduced vulnerability. Traffic control points monitor traffic flow along routes, reporting to the TAC CP and adjusting the march as directed.

Movement on multiple routes during periods of reduced visibility increase traffic control problems. Major intersections, defiles, and detours along routes also add to the problem.

The G3 requests additional MP support when organic assets are not sufficient. Army aircraft provide an efficient means of monitoring tactical road marches.

The TAC CP monitors movement through units and TCP reports. Based on the movement or OPORD, the TAC CP commands and controls the division's movement and submits any required reports to the corps.

At the RP, guides assist units in clearing the route. The road march terminates when all units clear the march route and occupy their assigned positions for the follow-on mission.

Road Movement Table

Normally, the road movement table is an annex to the movement order. It contains information and instructions on march serials, including identification serial numbers, rates of march, start points, crossing times, critical points, and other details.

A march column may have difficulty maintaining a constant density, speed, and uniform distance between march units, depending on the state of unit training, weather, light, road conditions, and the tactical situation. Adding a safety time factor to calculations is often necessary.

Standard AASLT Division March Tables

The division uses the AASLT battalion as the basic building block for planning tactical road marches. If road space or time is critical, planners conduct a detailed road movement order.

The following data is the basis for the road movement planning formula to expedite movement:

- Gaps between vehicles are 100 meters for day moves and 50 meters for night or limited-visibility moves.
- Rate of march is 30 kilometers per hour for day moves and 15 kilometers per hour for night or limited-visibility moves.
- Pass time for a march unit (up to and including 20 vehicles) is 5 minutes. (Actual pass time is less when there are fewer vehicles. To simplify planning and execution, this example uses the 5-minute pass time per march unit. The pass time includes a 1-minute gap between march units.)
- The unit plans a 5-minute time gap between march units and a 10-minute gap between serials.
- Pass times for serials include pass times of all its march units plus the 5-minute gap between serials.

A serial with five march units has a pass time of 30 minutes. This is a 5-minute pass time for each march unit and the 5-minute gap following the last march unit and the next serial. (Five march units times 5 minutes equals the 5-minute gap.)

Figure 6-12 details standardized march units for each division unit. The figure indicates pass times for each march column. It applies for either day (at 30 kilometers per hour) or night (at 15 kilometers per hour) marches.

To obtain the total time for a route add the pass time to the time-distance factor for the route (Figure 6-13). (See also FM 55-10.) Figure 6-14 shows standardized march columns on three routes and march units, serials, and pass times.

The G3 inserts remaining division units into march columns as the situation and movement order require. Such units include division headquarters elements, DIVARTY, DISCOM and the MSB, and the remaining portions of the separate battalions.

NOTE: See FM 21 -18 for more information on foot march planning.

ASSEMBLY AREA OPERATIONS

The division occupies an AA for a variety of reasons, including preparation for offensive operations, reserve operations, or reconstitution. The corps or JTF assigns the division its AA. The division organizes the AA based on IPB and METT-T.

The division normally occupies its area task-organized for a follow-on mission. The G3 makes sure the assigned area contains sufficient space for the division to occupy to prepare for future operations.

The division establishes two separate and distinct AAs within its assigned area—the division forward assembly area (FAA) and the division rear assembly area (RAA). Normally these areas are from 10 to 15 kilometers apart.

Division forces occupy the area according to the SOP. Units usually use the clock method to occupy an AA. During the occupation of all AAs, 12 o'clock is always the side nearest the enemy.

The main CP controls the FAA and the rear CP controls the RAA. The elements in Figures 6-15 and 6-16 normally occupy the FAA and the RAA, respectively.

The division occupies AAs in phases. (See the Tactical Road Marches section.) Guides meet units at RPs and direct them to their positions. Units move from the RPs to their positions without stopping.

March Unit	Minutes Per Column	March Unit	Minutes Per Column
Div HQ	3	Cav Sqdn	2
Inf Bde HQ	2	DISCOM HQ	2
Inf Bn	4	FSB	3
DIVARTY HQ	2	MSB	4
DS Arty Bn	4	Engr Bn	4
GS Arty Btry	2	ADA Bn	6
Avn Bde HQ	2	MI Bn	4
AH Bn	2	Sig Bn	7
Aslt Hel Bn	2	MP Co	2

Figure 6–12. Standardized march unit pass times for each divisional unit

Day

3 hours, 40 minutes pass time
+3 hours time-distance factor
=6 hours, 40 minutes total pass time

Night

3 hours, 40 minutes pass time
+6 hours time-distance factor
=9 hours, 40 minutes total pass time

Pass time + time-distance factor=total pass time

Figure 6–13. Example total pass time on a single route

Route One	March Units/ Serials	Route Two	March Units/ Serials	Route Three	March Units/ Serials
Inf Bde HQ	2/1	Inf Bde HQ	2/1	Inf Bde HQ	2/1
Inf Bn x 3	12/3	Inf Bn x 3	12/3	Inf Bn x 3	12/3
DS Arty Bn	4/1	DS Arty Bn	4/1	DS Arty Bn	4/1
FSB	3/1	FSB	3/1	FSB	3/1
Engr Bn	1/1	Engr Bn	1/1	Engr Bn	1/1
ADA Bn	2/1	ADA Bn	2/1	ADA Bn	2/1
MI Bn Co	1/1	MI Bn	1/1	MI Bn	1/1
Sig Bn Co	1/1	Sig Bn	1/1	Sig Bn	2/1

Total: (for each task force) 26/10 (3 hours, 40 minutes.) This shows that using multiple routes reduces pass times. To obtain the total pass time on each route, add the time-distance facotr plus the pass time.

Figure 6–14. Standardized march columns on three routes

Each CP ensures occupying units establish perimeter security. The division's plan and graphics establish coordinating points between units to ensure gaps do not exist on the perimeter and to coordinate fire support.

The AA perimeter is similar to the FEBA in a defensive sector. It is where elements of the division conduct close operations.

The division's security area is outside the perimeter to the limits of the AA higher headquarters assigns. The division conducts counterreconnaissance actions to protect the force from enemy ground reconnaissance and to detect threats.

Units in the FAA and RAA secure all routes through their assigned areas. The division occupation plan establishes NAIs and assigns surveillance responsibilities. The main CP in the FAA coordinates and synchronizes security actions for both areas.

As in rear operations, each unit in the AA prepares to conduct level I responses to rear area threats. Both areas designate a level II response.

The division designates a level III (TCF) response to significant threats. The division employs its intelligence assets to support division OPSEC and AA security. The division employs GSRs, communications interceptions, and direction-finding systems as part of the counterreconnaissance effort.

The intelligence system also continues to update IPB products for the follow-on mission. The ACE

Unit	Location
TAC CP and main CP (collocated)	Center sector
DIVARTY	Center sector
Inf Bde	10-2
Inf Bde	2-6
Inf Bde	6-10

Figure 6–15. Forward assembly area occupants

Rear and DISCOM CP	Center Sector
ADA Bn/MP Co	11-1
Engr Bn/Cml Co	1-2
Avn Bde/Cav Sqdn	2-6
MI Bn	10-11
DISCOM/MSB	6-8
Sig Bn	9-10

Figure 6–16. Rear assembly area

coordinates with higher and adjacent units to update the enemy situation. Depending on the situation, the division may use its division-level reconnaissance assets to further develop combat information and intelligence for the follow-on mission.

The division directs maneuver forces to conduct security operations. If the division is occupying an AA in the corps rear, the corps may require it to provide a response force for the corps rear. The main CP coordinates this action with the corps rear CP.

Fire support for the RAA is a concern, The division may position artillery with the RAA to provide responsive fires or position artillery, especially 155-millimeter artillery, in the FAA to range the RAA and beyond. Attack helicopters from the aviation brigade in the RAA may also provide fire support to the RAA.

Engineers continually improve survivability positions within the AA. They also help conduct reconnaissance for follow-on missions.

The division engineer and the ADE coordinate with higher and adjacent units to ensure the division knows the locations of obstacle zones and belts. They coordinate with CSS elements to ensure MSRs are clear and swept daily. For defensive operations, the engineers, with the G2, determine the locations and status of enemy obstacles and send this information to division elements.

The assistant division air defense officer (ADADO) coordinates AD of the AA with the corps AD effort. The division employs FAAD assets throughout the AA. Normally, the division directs priority of coverage to the RAA and the aviation brigade.

The air defense officer (ADO) and/or ADADO, with the G2, prepares and coordinates the air IPB. The division positions its FAAD assets and employs them to counter the threat.

Division CSS assets continue to man, arm, and fix the division. Depending on the follow-on mission, priority is to the distribution of Class V supplies. The division continues to refine its plan for the follow-on mission. Units conduct follow-on mission rehearsals in the AA to the extent possible.

RECONNAISSANCE IN FORCE

Units receive a reconnaissance in force mission when enemy disposition is unkown and the information provided from reconnaissance outweighs the risk of obtaining it. The AASLT division moves forward to perform limited reconnaissance in force in rugged or compartmentalized terrain. It finds enemy strong points and weaknesses in main defensive positions and creates gaps. Keys to the mission's success are coordination and speed.

An ASSLT unit cannot sustain itself for long periods. So, the corps or JTF must limit the scope of the reconnaissance. The division expects the corps to take advantage of what information it obtains. The reconnaissance in force finds the enemy and sets the stage for his defeat.

The reconnaissance in force may develop a situation more rapidly than other movement-to-contact methods. When deciding to conduct a reconnaissance in force mission, the commander considers—

- His knowledge of the enemy situation.
- The efficiency and speed of other intelligence-collection assets.
- The extent to which the reconnaissance in force may divulge the plan of action.

- The possibility that the reconnaissance in force may lead to a general engagement.

The AASLT divison has sufficient firepower to cause the enemy to react to probes and limited objective attacks. This discloses enemy locations, dispositions, strengths, planned fires, and use of reserves.

The corps commander must anticipate the enemy reaction to a reconnaissance in force operation. He can then plan either to exploit weaknesses or withdraw the division pending the assembly of sufficient combat power to destroy or defeat the enemy force.

With the exception that the AASLT division has more attack and assault aircraft with which to maneuver forces, the division conducts reconnaissance-in-force operations similar to that of the light infantry division. (See FM 71-100-2, Chapter 3.)

ARMORED-LIGHT OPERATIONS

The AASLT division accommodates airborne and/or light infantry battalions and brigades without particular difficulties. Integrating armored forces poses greater challenges for the division.

Employing light units with armored units can be a combat power multiplier. Armored-light unit operations effectively use the AASLT division's ability to operate in restrictive terrain, such as urban areas, forests, and mountains, which maximizes the force's survivability and capabilities.

The armored-light force should be mutually supporting and based on the commander's concept of employment to ensure total integration and synchronization of assets from both forces. To make the most of these potent formations, AASLT commanders must know armored capabilities, limitations, special task-organization considerations, and how to employ armored forces during AASLT division operations.

Employment Considerations

The purpose of employing armored and light forces together is to capitalize on the unique strengths of each while minimizing their limitations. To accomplish this, commanders and staffs must synchronize all combat, CS, and CSS assets. Attaching an armored brigade to the AASLT division is a combat power multiplier for the division only if it meets three conditions.

First, armored-brigade employment must support the division's mission. Division commanders ensure the comparability of the tactics, techniques, and procedures (TTPs) their forces and the armored brigade use. Commanders and staffs properly integrate all AASLT division assets with the armored brigade to support armored-light operations.

Second, the armored brigade must bring its own logistic support. The armored brigade is normally under the division's OPCON. This relieves the AASLT division of supporting the brigade.

The AASLT division has significant assets with which it can support an armored force. However, its FSBs cannot support armored brigade fuel, ammunition, and maintenance requirements without adversely impacting its ability to sustain its organic units.

Third, the commander must know the differences in tempo between AASLT and armored forces and use these differences to his advantage. Differences in mobility change the way the AASLT division fights. The armored brigade's agility allows it to move quickly. It depends on mobility and firepower to survive. Integrating speed and mobility is vital when conducting operations as an armored-light force.

The commander employs a mixed force based on sound METT-T analysis. By maximizing capabilities and minimizing limitations, he can effectively integrate armored and light forces.

Armored Force Capabilities

Armored forces emphasize firepower, mobility, and protection. They rely on tracked, armored vehicles to maneuver cross-country through enemy shell fragments and small-arms fires. These combined-arms organizations include tanks, mechanized infantry, self-propelled artillery, and other CS and CSS capabilities, much of it armored.

Like AASLT forces, armored forces fight offensively. They strive to punch through opposing forces to drive deep into enemy rear areas.

In the offense, armored forces press the fight to create a favorable situation. They keep the enemy

off balance and in disarray until it accomplishes its mission objectives. Ideally, all armored attacks begin as hasty attacks against an unprepared or poorly prepared enemy force with friendly force actions dictating the tempo and timing of each engagement.

If required to conduct a deliberate attack, the corps or JTF and/or division commander task-organizes the armored force to include all the necessary combat, CS, and CSS assets to conduct a successful mission. As soon as friendly armored forces penetrate the enemy's defense, armored units quickly secure objectives and, METT-T dependent, transitions to pursuit and exploitation operations.

In the defense, armored units seek a mobile offensive battle and are always alert for opportunities to counterattack. As with the AASLT division, armored brigades work well in the covering force, in delays, and in withdrawals. Their ability to fire on the move under enemy fire and to delay against larger enemy armored forces makes them an ideal detachment left in contact.

Armored forces fight around the clock in all environmental conditions. They prefer to operate at night, making use of thermal gun sights, infrared viewers, and a vast family of passive-image intensifiers (such as starlight scopes). Armored forces can continue to conduct combat operations in certain weather extremes (such as fog and thunderstorms) that would ground Army aviation.

The armored brigade brings armored protection, ground mobility, and firepower to the AASLT division. The division uses these capabilities to exploit success or reinforce the defense. Integrating and synchronizating capabilities can overwhelm a numerically superior force,

Armored forces operate as attack or counterattack forces and accomplish rapid movement in exploitations and pursuits. They—

- Seize terrain and penetrate or envelop enemy defenses or strongpoints.
- Conduct defensive operations by dispersing over great distances and by concentrating rapidly. (They can also defend from strongpoints.)
- Rapidly exploit success in the offense or defense, including the effects of nuclear, chemical, and conventional fires.
- Conduct delaying actions against larger enemy armored forces.
- Conduct security missions.
- Provide organic AD against low-altitude, hostile aircraft.

Armored Force Limitations

Armored forces depend mainly on radio communications. This makes them vulnerable to EW. However, understanding the commander's intent, doctrine, drills, and control measures ensures that execution of plans is less disrupted when radio communications break down.

Armored forces have a high consumption rate of supply items, especially of Classes III, V, and IX. Anticipating these supply needs, integrating supply assets into the brigade support area at optimum times, and extensively using logistics packages (LOGPACs) reduces this burden.

Armored forces are vulnerable to antiarmor weapons and mines. Proper integration of dismounted infantry, use of artillery, terrain driving, and extensive reconnaissance to locate and target enemy antiarmor positions and minefield reduce this vulnerability.

Armored units have difficulty defending positions against enemy infantry because of the limited number of dismounts available. When armored forces position to defend on mechanized avenues of approach, the infantry augments them to reduce vulnerability.

The formidable armored force has corresponding limitations. Just as with the AASLT division or any other Army organization, prudent commanders endeavor to accentuate strengths while lessening effects of limitations. Therefore, plans and operations must take the following into account:

- Armored forces require large amounts of supplies and services, particularly fuel, ammunition, and vehicle and/or armament maintenance.
- Combat and CS forces in an armored and/or mechanized TF move in tracked vehicles. However, an armored TF contains up to twice as many wheeled vehicles as tracked vehicles. These wheeled units, many of them vital for CSS, re-

quire roads or passable trails to keep pace with the armored combat teams.

- Rough, densely wooded, flooded, or urban terrain restricts both tracked and wheeled vehicles. Armored forces must negotiate the terrain in its sector or circumnavigate adverse terrain (such as rivers). However, wherever armored forces travel, they must be able to fight and defeat enemy forces kilometer by kilometer. Certain adverse weather or weather-caused conditions (mud, deep snow, dust) may seriously degrade cross-country and road rates of movement.
- Strategically, armored forces deploy into new theaters of operations slowly, usually by sea. Although pre-positioned equipment accelerates this process, armored forces arrive over weeks and months, rather than the hours and days associated with the intercontinental movement of lighter brigades and divisions.

Task Organization Considerations

The AASLT division must consider armored force strengths and support requirements when determining the best way to task-organize. The AASLT division may receive OPCON or attachment of an ACR, a separate armored or mechanized brigade, a division armored or mechanized brigade, or an armored or mechanized battalion TF. In almost all cases, the division assumes authority over a combined-arms structure, rather than a "pure" formation.

Sustaining a large armored force can strain the AASLT division's logistic units. Fuel, ammunition, and supply needs can overwhelm the logistics network of a light, airborne, or AASLT division. Either corps or JTF and/or the parent division must significantly augment the AASLT division to support an armored brigade's CSS requirements.

The AASLT division's more robust CSS system can better support the armored force. It requires less corps or JTF augmentation. Its DISCOM habitually sustains a large aviation fleet.

The AASLT division includes experienced soldiers and sufficient, proper equipment to move and store substantial fuel, ammunition, and spare parts. DISCOM's supply and transportation assets help sustain armored forces with less augmentation than other light divisions as long as the AASLT division receives a flow of armor-peculiar items to distribute.

The AASLT division commander weighs the potential reduction in CSS for his aviation if part of DISCOM diverts to sustain an armored or mechanized brigade. Additional CSS, especially transportation assets and DS automotive and turret maintenance elements, accompanies the armored force. Otherwise, the armored brigade exerts such a drag on the AASLT division's sustainment effort it might adversely affect the tempo of air assaults and raids.

With CSS the central issue, the principal questions become evident. How much armor should the corps or JTF assign to the AASLT division? Should the corps or JTF attach or retain OPCON of the armored force?

Commanders should thoroughly consider such questions when assigning an armored brigade to the AASLT division. They must consider METT-T factors in the capabilities and limitations of the combined force with respect to-

- The force's size and mission.
- The deploying unit's location in relation to its parent unit.
- The deploying force's support capability.
- The deploying force's source of support.
- The armored force's self-sustaining capability.

When requesting the support of an armored brigade, the division routinely expects to receive a brigade task-organized as in Figure 6-17. The armored division provides additional assets to the armored brigade within its capability.

Additional division assets are from 6 to 8 heavy equipment transporters, ten 5,000-gallon tankers in the MSB, two MSE nodes, and one MP platoon. This is the minimum-essential organization required to support the AASLT division. This is what the parent armored division should provide the armored brigade while remaining capable of conducting and supporting armored division operations. Normally, additional augmentation for the armored brigade comes from the corps if the brigade's parent armored division cannot support its detached unit.

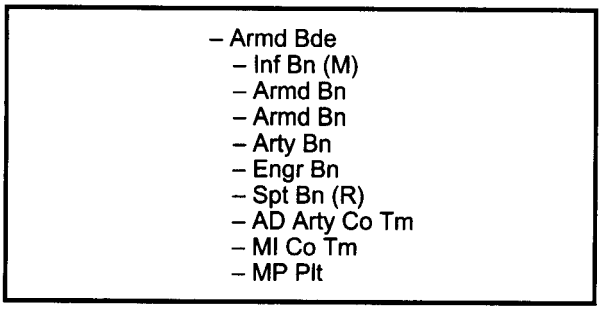


Figure 6–17. A generic armored brigade's task organization

Corps Transportation Assets

The AASLT division attains increased ground mobility when it has dedicated transportation assets. Ideally, the AASLT division always moves tactically via organic helicopters.

The normal TOE for ground movement is one light-medium truck company per AASLT brigade. This organization has sixty 2 1/2-ton trucks, and ten 5-ton tractors with stake and platform beds. The company has a haul capacity of 1,700 people or 1,300 people and 276 short tons (STON) of supplies in one lift. METT-T may dictate overloading each truck, based on safety and mission requirements.

The flexibility gained by attaching these companies to the AASLT division is extremely important. With this single attachment, the AASLT division commander increases his ability to tailor his forces and his tactics.

The division also requires recovery and maintenance augmentation to support the truck companies. In terms of firepower, each truck carries a ring mount and a .50-caliber machine gun. Units use these to provide additional firepower during movement.

Brigades Versus Battalions

Corps or JTF commanders tailor divisions by brigade. A brigade is the most typical armored organization assigned to the AASLT division. In some cases, when constrained by a compressed time schedule or limited means of deployment, the corps or JTF elects to allocate an individual armored battalion TF.

Brigade-size combined-arms armored forces, including ACRs, are the ideal forces for integration into AASLT operations. These forces' task organizations incorporate a normal FSB, augmented with additional transportation, maintenance, armor-peculiar supplies, and armored MEDEVAC assets. The brigade sustains combat operations for extended durations, depending on arrangements for personnel and equipment replacements.

Independent armored or mechanized battalion TFs rarely serve with the AASLT division. They lack the necessary CSS structure to sustain operations for more than a day or two. Commanders remedy this only by resorting to an improvised CSS component, such as a multidisciplined forward support company with extra transport trucks.

These CSS limitations affect the division commander's flexibility in employing the armored TF and could become a liability during a protracted operation. If he delegates command of the TF to a subordinate AASLT brigade, he must provide additional CSS to assist that brigade's FSB.

Should the division retain direct authority over the armored TF, the battalion's staff may lack the experience to synchronize operations with AASLT brigades. Before choosing one alternative over the other, the division assesses METT-T, with special interest in the exact composition of the TF (especially its logistic trains) and the talents and depth of its battle staff.

Though these challenges argue for using brigade-level armored forces, METT-T could dictate otherwise. In a short-notice crisis deployment, an armored TF might represent the largest available component. Consequently, the AASLT division evaluates the most effective ways to employ both types of forces during combat operations.

OPCON Versus Attached

The corps or JTF commander can direct OPCON or he can attach armored organizations to the AASLT division. METT-T factors determine which command relationship the corps or JTF establishes.

The anticipated duration of the assigned mission and the source of the armored force's CSS affect the decision. An OPCON relationship works well for short periods (under 48 hours) and in theaters where the corps, JTF, or armored brigade's parent division can provide reliable logistic support.

By definition, OPCON excludes CSS. However, AASLT division logisticians make provisions to supply fuel, ammunition, food, and similar staples in the event the OPCON relationship converts to attachment because of a change in METT-T.

Attachment characterizes longer missions or cases in which the corps or JTF augments the AASLT division with appropriate CSS. A forced-entry strike operation after a rapid deployment would also favor attachment.

In any situation, allocating an armored force to an AASLT division implies potential development of an attached relationship, The division plans appropriately.

The AASLT division may retain OPCON or may attach armored battalion TFs to subordinate brigades. The division makes the choice based on the same METT-T considerations that affect identical corps or JTF decisions. In either case, when it becomes necessary the division adjusts the relationship as operations progress.

Planning Considerations

Effectively employing a force with both armored and light elements requires detailed planning. Mutual planning and developing orders, rehearsals, and coordination between respective commanders and staffs must occur.

Critical areas in the planning process include the command and support relationship, the composition of CS and CSS support, and the effective use of terrain. A common SOP or understanding of each unit's SOP is essential to synchronizing all combat, CS, and CSS units.

Intelligence

Detailed intelligence is critical to the success of armored-light force integration. Commanders and staffs must understand and integrate each force's intelligence requirements into the IPB process.

Armored forces orient on unit concentrations, tank and AT locations, counterattack routes, armored obstacles, engagement areas, and artillery and AD assets. The division staff combines, compares, and explains in detail both forces' PIR and DSTs to both staffs.

Staffs jointly develop and coordinate R&S plans for both units. The armored force mainly uses its long-range observation devices to conduct reconnaissance.

Armored force systems provide enhanced ground mobility, range, and protection when contrasted to AASLT division assets. The intelligence plan integrates these enhancements.

Maneuver

Either the armored or AASLT force fixes the enemy while the maneuver force attacks. In either case, the armored force requires adequate terrain to maneuver.

Armored forces are best suited to open and mixed terrain. Mobility and organic firepower make it easier for mechanized and armored forces to disperse and rapidly concentrate at the decisive point on the battlefield.

The difference in OPTEMPO between AASLT and armored units is always a consideration, including the scheduling of rehearsals. It may dictate an early rehearsal time to allow both forces to take part.

Both units' direct and indirect fires mutually support each other. The armored brigade uses its long-range, direct fires to provide suppression and overwatch fires for the AASLT division.

The AASLT division integrates the armored force's long-range, antiarmor fires. In armored-light operations, differences in equipment may dictate different techniques in marking TRPs.

Fire Support

The armored force must recognize that when the AASLT division operates dismounted its operations focus on stealth, which could preclude preparation and other preliminary fires. Planners integrate available fire support for each force into the fire plan.

Staffs jointly develop and ensure everyone understands restrictive fire control measures. They must ensure all TACFIRE systems interface. This is a critical rehearsal issue.

Air Defense

Air defense artillery requires centralized planning to orchestrate ADA support for armored-light organizations. The division can consolidate ADA units to provide more dense coverage around critical targets. Armored forces provide excellent coverage and capability in AD and can carry the resupply of Stinger missiles.

Mobility and Survivability

The division G3 and the engineer develop a common obstacle plan and consider using dismounted AASLT infantry to clear choke points and obstacles for the armored force. Division planners also consider weapons' disparities in range, their impact on prepared obstacles, and the use of terrain during battle handover to an armored force.

Mobility and survivability priorities may be different for each force. The AASLT force coordinates to take full advantage of the armored force's engineer assets. When AASLT forces breach obstacles for armored forces, the breach must be large enough for the widest vehicle in the operation.

Combat Service Support

Field Manuals 17-18 and 63-2-1 detail CSS planning information for armored-light operations. Combat service support requires an understanding of both forces' current, ongoing, and forecasted needs.

Commanders must be able to cross-level CSS to support overall support requirements and prepare to receive CSS augmentation from the corps support group. The division coordinates use of the armored force's transportation assets to facilitate cross-leveling.

The AASLT division emphasizes replacing parts; the armored unit emphasizes repair. For example, the addition of a heavy force requires the AASLT division to develop and deliver LOGPACs to support the heavy force. These factors require continuous attention throughout the operation.

The armored force continuously performs maintenance. The AASLT commander understands this requirement and provides opportunities for maintenance. Also, armored forces provide the AASLT force with limited water, resupply, and casualty evacuation. Combat service support planners in the AASLT division must give special attention to resupply of systems in the armored brigade.

Command and Control

The directing headquarters designates armored-light force command relationships. Armored and light forces also exchange LOS. The staffs jointly conduct the planning process and coordinate development of orders and overlays.

Backbriefs are mandatory at the brigade level of combat and at CS and CSS units to ensure timing, synchronization, and understanding of intent. Units use standard operational terms and symbols, codes, recognition signals, and they exchange SOIs. The directing headquarters may need to setup a retransmission site to compensate for the shorter range of the AASLT unit's communications equipment.

Nuclear, Biological, and Chemical

The AASLT division's decontamination capabilities are significantly less than that of the armored force. The need for soldiers to carry protective clothing in addition to their standard load affects mobility.

The division should plan the transport of NBC equipment. An armored battalion has expedient devices and water-haul capabilities that can offset AASLT force shortfalls.

Tactical Mobility

Air assault units use mobility and terrain to attack when and where the enemy least expects. This will force him to fight at a disadvantage.

Augmenting the AASLT division with an armored brigade occurs when the division commander decides terrain provides an advantage or when he needs an armored brigade to overcome a terrain disadvantage. An armored brigade's capabilities to move rapidly, penetrate enemy defenses, and destroy armored opposition with its firepower are the greatest abilities it brings to the AASLT division.

To obtain synchronization of AASLT and armored forces, the AASLT commander coordinates the armored brigade's movement with the division's

manuever units. He provides maneuver space for the armored brigade to the objective if it is part of the attack. If it is not possible to attack simultaneously with other maneuver forces, the AASLT division commander must decide—

- How much separation to accept before committing the armored force.
- How much of the armored force to commit and how much to keep close to the infantry.
- What obstacles or fortifications along the armored maneuver route require infantry to expedite movement of the armored force.

Infantry Mounted on a Tank Unit

Mounting infantry on an armored unit is a viable, but last-resort, solution. Safety is an obvious concern. (See FM 17-18.)

Continuous exposure to the elements is debilitating to soldiers riding on tanks. Retrograde operations make it difficult to mount and dismount infantry on armored vehicles.

When mounted on an armoredunit, infantrymen are extremely vulnerable to AT, artillery, small-arms fires, ambushes, and the movement of the tank's turret. However, when trucks are not available, or in emergency circumstances, dismounted infantry can mount on armored vehicles to avoid having to march over long distances.

Foreign National Support (FNS)

If tactical constraints degrade CSS requirements, the preferred method for closing the gap is to get appropriate goods and services locally. In sustained warfare, CSS capabilities seldom meet supply and services requirements.

Acquisition may be accomplished through FNS. Foreign national support refers to the identification, coordination, and acquisition of foreign national resources such as supplies, material, and labor to support division operations.

Tactical Employment

Assigning complementary missions to each force is the guiding principle for employing armored and light forces. The AASLT division can expect to conduct tactical operations with armored units in all combat environments.

The most common employment of armored forces by the AASLT division occurs when terrain and vegetation favor use of infantry. Under the proper circumstances, the AASLT division normally receives one armored brigade from the corps.

The armored-light force conducts a multitude of missions and tasks. (See FM 71-100.) Armored-light operations in the offense include AASLT infantry missions of movement to contact, attack, and raid. They are supported by armored tasks such as reserve, overwatch, counterattack, attack by fire, covering force, and deception.

During the planning phase of the deliberate attack the AASLT commander might perceive the possibility of an enemy counterattack. He might then request augmentation of an armored brigade to be a reserve or counterattacking force to counter this potential threat.

The corps commander might then agree to augment the AASLT division with an armored brigade. The AASLT commander would then position the armored brigade forward and coordinate for the rapid movement of the armored brigade with the corps and the attacking armored division.

If the enemy attacks the initial objectives, the AASLT TAC CP directs the armored brigade to positions to counter enemy efforts. Success depends on the armored-light forces' ability to ensure the uninterrupted conduct of air assault to secure river-crossing sites and movement of the corps' main attacking force.

Offensive Operations

Armored brigades contribute significantly to AASLT division offensive operations. Five roles, in order of priority, stand out:

1. The brigade conducts a supporting ground attack to link up with a deep airhead.
2. The brigade penetrates the enemy FLOT to secure ground for aviation FARPs, artillery battery positions, and MI-collection devices.
3. The brigade attacks along the FLOT to fix and deceive the foe's front-line formations. In pursuit, the brigade provides direct pressure

while an AATF secures an objective to trap the fleeing enemy.

4. The brigade fights in the rear to destroy hostile parachute landings and heliborne raids.
5. The brigade conducts security operations on a vulnerable flank.

Armored battalion TFs do not have as much capability as do brigades. If enemy dispositions allow, a TF conducts a ground attack to link up with AASLT forces and FOBs. More likely, the TF secures a flank, conducts feints along the FLOT, or performs rear operations.

Defensive Operations

Light tasks in armored-light operations in the defense include defending, delaying, and withdrawal missions. Armored tasks include counterattack, reserve, covering force, overwatch, reinforcing, and detachment left in contact (DLIC) missions.

When planning the defense, the commander might recognize a weakness and request an armored brigade from the corps to provide a reserve. The armored brigade, if sent, is OPCON to the AASLT division. The commander positions the armored brigade to rapidly counterattack enemy penetrations or to reinforce infantry positions as required.

Armored brigades strengthen AASLT division defensive operations. They offer six means, noted in order of preference, to aid in defense or retrograde situations:

1. The brigade counterattacks as part of a mobile defense, ideally to link up with an AASLT force.
2. The brigade serves as a DLIC (in the CFA, a delay, or a withdrawal). Armor units with mobile, protected firepower stand a far better chance of breaking decisive contact than dismounted or AASLT task forces.
3. The brigade conducts spoiling attacks and feints.
4. The brigade defends in sector in a wide or deep MBA.
5. The brigade conducts rear operations to destroy hostile parachute landings and heliborne raids.
6. The brigade screens a vulnerable flank.

Armored battalion TFs do not possess the combat power necessary to execute the more demanding armored brigade missions. Usually, they serve OPCON or attached to the covering force or rear guard AASLT brigade where they fill the DLIC requirement.

Armored TFs may reinforce the main effort in the MBA. They may also work directly for the division in rear operations or as a flank screen.

Chapter 7

ENVIRONMENTAL CONSIDERATIONS

This chapter discusses military operations in a variety of environments. Such operations include military operations on urban terrain and amphibious, cold weather, and jungle operations.

MILITARY OPERATIONS ON URBAN TERRAIN (MOUT)

The tremendous growth of urban areas worldwide continues to reduce the amount of open, maneuverable terrain available to attacking or defending forces. Many areas form giant urban obstacles extending many kilometers.

Generally, giant urban areas are located on or near traditional movement corridors in regions rich in natural or industrial resources. They play important roles in the economic and political life of many countries. Consequently, there are many areas where units may have to attack or defend a city.

Division commanders and staffs must understand the complexities and problems of MOUT. Doctrine applicable to the open battlefield is equally applicable to the urban battlefield. The decision-making methodology for developing and war-gaming COAs remains the same. Only METT-T factors change.

Isolation characterizes the urban battlefield. Therefore, urban battle requires psychologically strong leaders with positive attitudes. The MOUT battle is the type of fighting at which properly supported infantry units excel.

Field Manuals 90-10 and 90-10-1, the current doctrinal references for MOUT, focus on battalion and lower levels. This section provides division-level commanders and staffs a summary of MOUT TTPs.

The AASLT Division's Role

The AASLT division conducts both offensive and defensive operations in urban areas. The division can conduct operations against a combination of armored and light forces to-

- Control avenues of approach.
- Act as a combat multiplier by freeing more mobile armored forces to act as a reserve force as part of a corps or Army plan.
- Retain key transportation or economic centers.
- Protect or hide the force.
- Deny strategic or political objectives to the enemy.

Commanders and staffs conducting mission analysis for MOUT consider—

- Diverse IPB requirements.
- Special C^2 requirements.
- Unique task-organization requirements.
- Fire support capabilities and limitations.
- Weapons effectiveness.
- Special considerations for CHS and logistic support.
- Special equipment for urban operations.
- Control measures.

Intelligence Preparation of the Battlefield

The IPB process for the urban battlefield follows standard doctrinal methodology. However, the nature of urban warfare requires additional information the IPB process does not normally generate, including—

- Information on underground passages, such as sewers, subways, heating tunnels, water, and electrical conduits, which the enemy or friendly forces might use for intracity movement.
- Information on water supplies and electrical power generation and distribution systems.
- City maps and aerial photographs denoting building heights, overhead obstacles, bridges (and

their locations and capacities), hospitals, and other special-purpose buildings.

- Detailed building and bridge analyses and data on building survivability and structural integrity.
- Grid or area shutoffs for power, water, gas, and other utilities.
- Information on factories and other types of industry that might impact operations, including refineries, rail yards, heavy equipment suppliers, industrial complexes, and medical facilities. (The G2 conducts a careful analysis to determine if use of these facilities will assist or hinder operations.)
- Information on communications systems that might aid C^2 or the control of which might deny a hostile populace or enemy the ability to rapidly disseminate information. (Systems include telephone systems, radio and television transmitters, and microwave and satellite relay facilities.)
- Information on local civil authorities, political leaders, and the population. Planning for refugee problems and evacuation is critical to both offensive and defensive operations. A detailed civil affairs action plan is essential.

Command and Control

Urban combat is one of the most difficult missions infantry forces execute. Centralized planning and decentralized execution is critical. Terrain isolation, the dominant characteristic of urban combat, and difficulties in communicating by tactical radio hinder C^2.

Planning for C^2 includes using all communications systems, including existing telecommunications systems and TACSAT radios, to link divisions, brigades, and battalions; FM radios; and tactical wire, Using other devices, such as remotely piloted vehicles (RPVs), sensor strings, or remote video links, provides the commander real-time intelligence as well as the means for calling for and adjusting fires.

Task Organization for Combat

In developing effective task organizations for MOUT, commanders and staffs recognize urban warfare's unique challenges. Conventional task organizations may not be effective. Combat and CS assets, such as engineers and MI, may receive nonstandard missions.

Fire Support Capabilities and Limitations

Urban terrain increases the difficulty of fire support planning and execution. Man-made structures can be obstacles to effective artillery fire support by masking effective fire (even when artillery uses high-angle fire).

DIVARTY may have to limit positioning of DS artillery to large parks and athletic fields and may require positioning outside of a city to provide massed fires inside or on avenues of approach to the front. Batteries may have to be in nonstandard firing configurations to fit urban terrain. They may also have to operate in a direct-fire mode in the offense to reduce enemy strongpoints. Subordinate maneuver units may have to rely on organic mortars for much of their indirect-fire support.

In both the defense and offense, the division uses a standard building marking system when calling for and adjusting fire support by aircraft. In the defense, this system may actually include marking building tops.

Units can pinpoint building locations using the global positioning system (GPS) to facilitate precision fire support. There may also be more RFAs, such as areas near hospitals, churches, and shrines. Division staffs disseminate information on these areas to the lowest levels.

Weapons Systems Effectiveness

Leaders give special consideration at brigade and battalion levels to the positioning and use of organic weapons systems. The restrictive nature of city streets could make it impossible to employ TOW and DRAGON AT systems to achieve the 65-meter minimum arming distance and still place effective fire on enemy armored vehicles. When fired at defensive positions in buildings, the warhead in these and other AT missiles makes them less effective than 105-millimeter howitzers.

Time and proximity fuzes enhance the effectiveness of artillery fired at the enemy on rooftops and behind barricades. If 155-millimeter or 203-millimeter SP howitzers are available to the division in

the offense, they are effective direct-fire weapons, particularly against bunkers and entry points.

Tanks and Bradley fighting vehicles (BFV) can be extremely effective in support of both offensive and defensive operations. Tank main guns generally do not make good entry-point holes in buildings, but can prove effective when tired at point targets. Units should use HE ammunition in most cases.

Tanks can destroy steeples, tall chimneys, and other structures containing enemy artillery observers. The tank's greatest value may be its mobile machine gun support to maneuvering infantry. With two 7.62-millimeter and one .50-caliber machine guns, two tanks have the mobile machine gun firepower of an AASLT company.

The division can use attack helicopters to detect and eliminate enemy strongpoints. If terrain permits, they can also provide precise fire support. Like armored forces, attack helicopters play a decisive role in interdicting attacking enemy forces and their LOCs.

When the division defends strongpoints, AT mines will be more difficult to emplace and conceal in urban areas. Consequently, they will have a degraded effectiveness. The use of antipersonnel (APERS) mines inside buildings may be more effective.

Combat Service Support

Casualties are high in city battles. Evacuation, especially aerial evacuation, is extremely difficult and even impossible in some areas. Therefore, units position treatment squads with physicians and physician assistants well forward in the offense, or establish them throughout the city in the defense. MEDEVAC routes and casualty collection points may be more difficult to coordinate because of obstacle belts and battle-induced rubble.

City battles greatly affect logistic support. They cause fluctuating changes in demand for such items as small arms, grenades, 40-millimeter projectiles, mines, mortar ammunition, light AT weapons, and demolition equipment.

Because of changes in consumption rates, units may not properly forecast ammunition requirements. As a result, DISCOM units must push (not pull) resupply. Where possible, units should stockpile supplies and ammunition in the defense.

Large numbers of displaced persons can also adversely affect the division supply system. Fighting in urban areas may increase the consumption rate for expendable supplies such as uniforms, boots, and load-bearing equipment (LBE).

Special Equipment Requirements

A division fighting in a city may need special equipment. At battalion level, this maybe shotguns, body armor, additional sniper weapons, and more concussion, smoke, and fragmentary grenades. At the division level, the commander and staff may need additional communications assets.

The AASLT division does not have enough wire and telephones to effectively wire-in a city defense. Since such assets may not be available, the division may need more TACSAT radios.

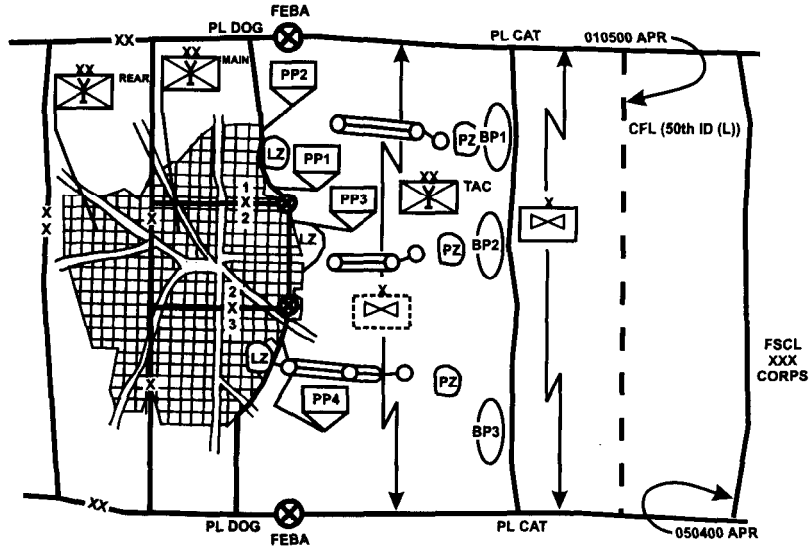
Control Measures

Combat in urban areas requires the same control measures as operations in other terrain. However, in the urban fight, some control measures are easier to identify. Others, such as frontages and zones of action, boundaries, checkpoints, contact points, PLs, and objectives, may be more difficult.

In the offense, the division normally assigns to the brigade narrow *zones of action* based on enemy strength, size of buildings, and levels of expected resistance. An attacking brigade TF may have a *frontage* of from 6 to 12 city blocks. Frontages and AOs influence formations. In the urban battle, commanders should maintain a significant reserve well forward.

Boundaries should be easily identifiable. No strict rules apply to boundaries, except one unit should control approaches. In dense urban areas, boundary placement is most often along one side of a street. Boundary placement may also allow one unit to include both sides of a street. Boundaries should never divide a major avenue of approach.

Street comers, railway crossings, buildings, bridges, and other easily identifiable features can function as *checkpoints* and *contact points.*



Techniques: Phase I

- The concept is to defend forward and displace to well-prepared defensive positions.
- Aviation helps with the withdrawal.
- The aviation brigade screens forward of PL CAT, which becomes the CFL as the force withdraws from battle positions.
- Aviation assets continue to screen as brigades and battalions withdraw into the urban area.

Figure 7–1. Example defensive MOUT operation: Phase I

Phase lines increase control. In the offense, they assist in regulating the advance of attacking forces and synchronizing the battle. In the defense, they assist in reporting enemy penetrations and may serve to trigger command decisions. Streets, rivers, trolley, and railroad lines make easily recognizable PLs.

Unit *objectives* can have several characteristics. They can be a specific object, such as a principal building, or a specific area, such as a petroleum tank farm. They can also be several buildings located around a major intersection. If the commander's intent is to clear in zone up to a specific point, a limit of advance may be more appropriate than an objective.

Defensive Operations

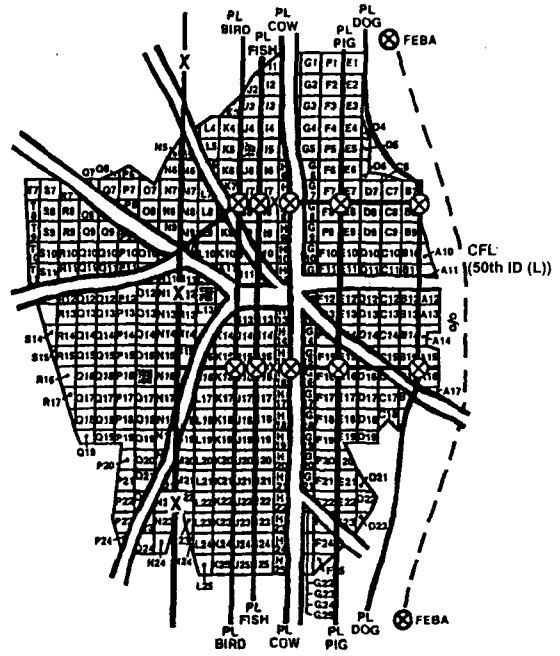
Built-up areas present obstacles to an attacking force while providing the defender an advantage and some protection. A small, well-prepared force in an urban defense can defeat or hold off a much larger attacking force.

Strongly constructed cities give the defender a decided advantage. Each building or group of buildings is a potential strongpoint.

With additional construction and the use of barricades, mines, and booby traps, an urban area can become a veritable fortress. Under some conditions, division elements may hold built-up areas while the remainder of the division defends from adjacent restrictive terrain.

The following are techniques and guidelines for defensive MOUT operations:

- Establish defenses in depth in built-up areas starting far forward and including approaches to the urban area.
- Integrate adjacent terrain into the defense.
- Use security forces operating in depth to counter enemy ground reconnaissance and infiltration.
- Use restrictive missions and detailed control measures to facilitate decentralized execution.
- Establish checkpoints to control access to the urban area.



Techniques: Phase II

- The objective is an enlargement of the urban area.
- *The division assigns alphanumeric designations to each city block.*
- The brigade numbers all buildings, houses, and structures, preserving no-fire areas (NFAs) (*hospitals and cultural and religious areas*).
- Once inside the urban area, the far sides of blocks (the enemy's sides of streets) are the CFL during withdrawal.
- The brigade develops CFL; the division consolidates them.
- The boundary shift for the 1st Brigade is behind PL BIRD to the brigade rear boundary.

Figure 7–2. Example defensive MOUT operation: Phase II

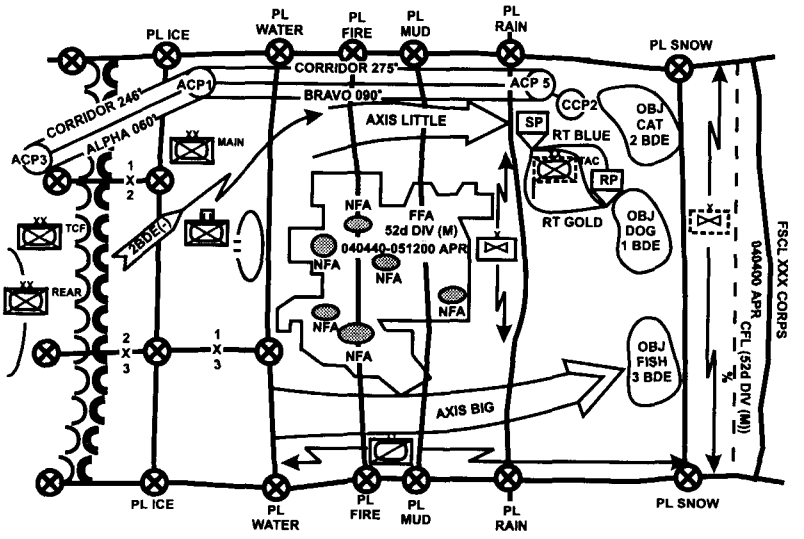
- Employ the combined-arms team to maximize individual unit capabilities.
- Emplace obstacles along major avenues of approach.
- Maintain a strong, mobile reserve to counter-attack and block penetrations.

Figures 7-1 and 7-2 are examples of defensive MOUT operations.

Offensive Operations

A detailed study of an urban area and enemy dispositions in and around it forms the basis for planning the attack. As in any attack, planning must provide for both maneuver and fire support. The following are proven techniques and guidelines for conducting offensive MOUT operations:

- Attack a built-up area only as the last resort and only when major advantage accrues through its seizure or control.
- Know the characteristics of urbanized terrain and the advantages and disadvantages it offers to either attacker or defender.
- Attack where the enemy is weak, hitting his flanks and rear simultaneously.
- Conduct detailed planning to enhance decentralized execution and to minimize C^2 problems.
- Employ the combined-arms team to maximize capabilities and minimize vulnerabilities.



Techniques:

- The division assigns alphanumeric designations to each block.
- The brigade numbers all buildings, houses, and structures and submits this information to the division.
- The brigade develops CFL; the division consolidates them.

Phase I: Isolate

- Commander's intent is to have a mechanized division rapidly bypass the town; success is preventing escape, withdrawal, or reinforcement.
- Designating objectives facilitates reorientation for phases II and III.
- The PL, used as the CFL, is adjusted through the execution matrix as maneuver units approach.
- The aviation brigade—
  —Prevents enemy reinforcement.
  —Prevents escapes, withdrawal (critical to future corps operations).
  —Covers movement into objectives DOG and CAT.

Figure 7–3. Example offensive MOUT operation: Phase I

- Dissipate an enemy's strength by causing him to react to demonstrations, feints, or ruses.
- Maneuver over approaches to a built-up area with smoke protection and overmatching fires.
- Reduce strongpoints with fires where possible, then while continuing to move, secure them with follow-on forces.
- Cut LOCs and defeat the enemy through isolation.
- Attack at night to gain surprise and maximize the night technology advantage of US forces.
- Keep the attack continuous until attacking forces splinter defenses once they achieve momentum.

Figures 7-3 through 7-5 are examples of offensive MOUT operations.

Attacks in MOUT normally have three phases (isolate, gain foothold and syystematic clearing). Phase I is isolating the city and seizing terrain features dominating approaches. The division secures positions outside the built-up area from which to support entry into the city itself. Tactics and techniques are similar to those of attacks against other well-organized enemy positions.

In phase II, the division advances to the edge of the built-up area and gains a foothold while eliminating the defender's observation and direct fires on approaches into the area. From the foothold area, the attacking unit penetrates on a narrow front with tanks and infantry leading, where possible.

Supporting fires on entry points focus on the front and on preventing flank attacks. Assaulting forces can expect to encounter barricades, AT obstacles,

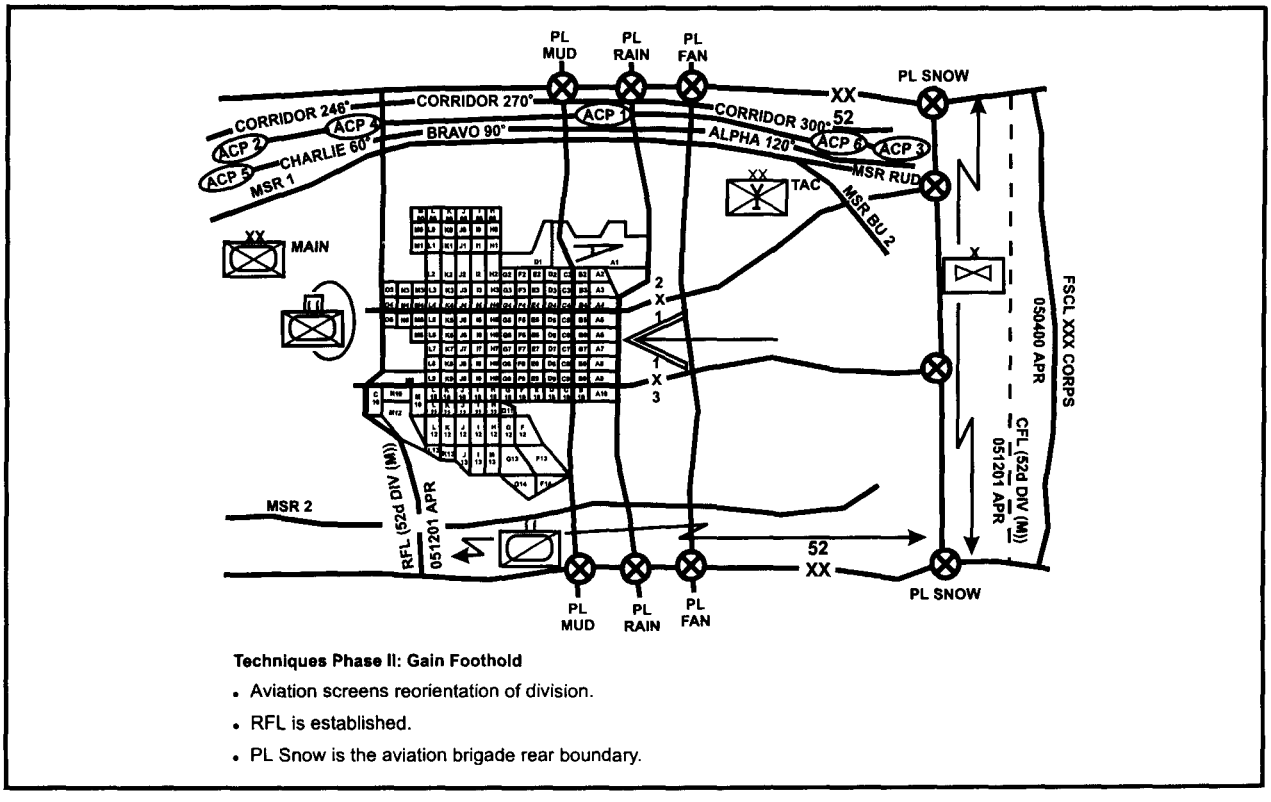


Figure 7–4. Example offensive MOUT operation: Phase II

mines, booby-traps, and AT fire. The probability of success increases if assaulting forces launch-the attack from an unexpected direction during periods of limited visibility or under cover of smoke.

Phase III varies from a systematic, block-by-block, house-to-house reduction of the built-up area to a rapid advance while clearing only critical areas and buildings. Phase III begins without pause after phase II. Clearance and seizure techniques depend on METT-T.

When the built-up area is large and heavily fortified and the mission requires a methodical house-by-house, block-by-block clearance operation, the division divides the area into brigade zones of responsibility. Each subordinate unit clears its zone completely, leaving no enemy to its rear.

There may be occasions, such as in Panama in 1989, where light forces deploy in support of national objectives to eliminate a hostile military or oppressive paramilitary force. Under such circumstances, a large percentage of the population may actually be sympathetic to US policy and objectives.

Restrictive ROE normally characterize such actions, which may be part of a noncombat evacuation operation (NEO). In such cases, the situation may warrant a graduated response. This may include a demonstration using the precision fires of attack cargo (AC)-130s, AH-64s, or field artillery in proximity to, but not actually on, hostile forces in an attempt to convince them to capitulate.

Operation Just Cause provides several excellent examples in which a graduated response resulted in the surrender of enemy forces. In one instance, US Army Rangers used the precision fire of an AC-130 to convince a Panamanian garrison to surrender. Rangers had the garrison commander call other Panamanian units and report what he saw. The result was the surrender of several other units without any direct confrontation.

In addition to preserving life on both sides, a graduated response may also help build or retain the sympathy of a local population by limiting physical damage and loss of life. A graduated response maximizes economy of force.

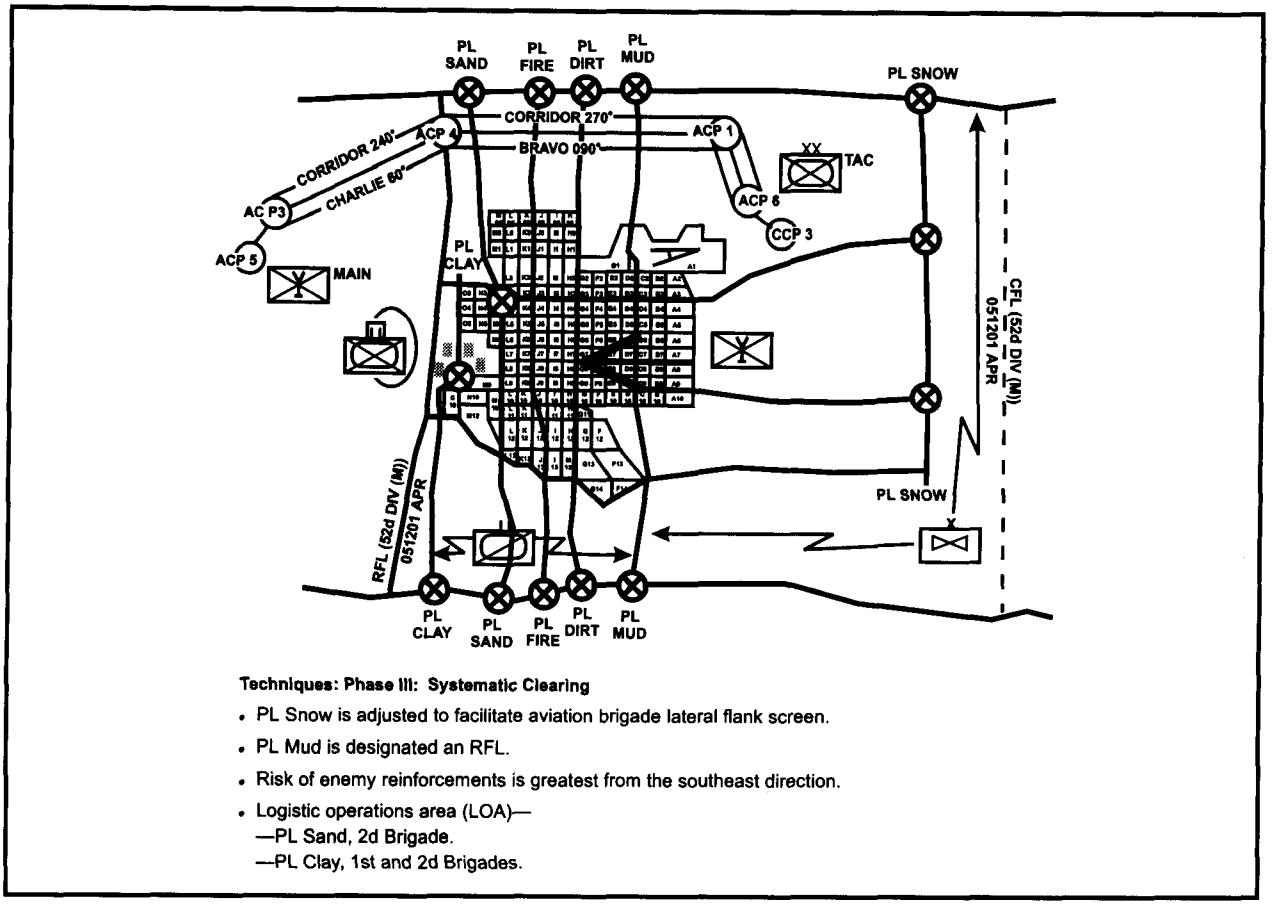


Figure 7–5. Example offensive MOUT operation: Phase III

WINTER AND COLD WEATHER OPERATIONS

Extreme cold weather conditions pose significant operational problems for the AASLT division. In temperate climates, many conditions have minimal operational impact; in the cold, however, they are a matter of life and death. Proper equipment, training, and strong leadership can overcome cold weather problems and complications. World Wars I and II and the Korean War included cold weather operations. Ten German divisions operated under arctic conditions in northern Finland during WWII in an area about 400 miles wide. The Russian Army used 47 divisions in winter operations against Finland in 1939. Future global or regional conflicts may require division operations in winter or cold weather environments.

Field Manual 90-11 is the Army's base doctrine on cold weather operations. This section provides an overview of environmental considerations for such operations.

The Commander

The commander must approach operations in cold weather in a positive manner, exploiting advantages and reducing disadvantages as much as possible. He must emphasize the feasibility of operations and transmit his confidence to his subordinates.

The commander faces no changes in doctrine or principles and, in general, uses tactics suitable for the terrain. However, operations in cold weather regions pose additional difficulties which greatly complicate C^2, maneuver, fire support, and CSS missions.

Although the fundamental principles of warfighting apply unchanged, special characteristics of operations in cold weather increase the commander's responsibilities. He must consider the use of special

clothing and equipment as well as expedients and improvisations for living and moving in the cold. With proper training, suitable equipment, and effective, resourceful leadership, the AASLT division can operate in the cold without significant loss of strength or effectiveness.

Winter and Cold Weather Considerations

Whiteout

A whiteout is an atmospheric phenomenon in which the light from the sky is about equal to that of the snow surface. A uniformly white glow appears to engulf observers. Whiteout occurs over unbroken snow cover and beneath a uniformly overcast sky.

Blowing snow can also cause whiteout. Shadows, the horizon, and clouds are no longer visible. Observers lose depth perception and become disoriented. They can only see dark and nearby objects.

These conditions affect observers in the air as well as on the ground and increase soldier fatigue. Whiteout most commonly affects helicopters during slow movement close to the ground's surface.

Grayout

Grayout occurs over a snow surface during twilight conditions, when the sun is close to the horizon, or when the sky is overcast with dense clouds. Surroundings have an overall grayness.

The absence of shadows causes a loss of depth perception and increases the hazards of landing aircraft, driving a vehicle, or even walking. Under certain grayout conditions, drivers find it almost impossible to distinguish the road from a ditch or from snowbanks along the roadside.

Grayout is similar to whiteout. In grayout conditions, the horizon is distinguishable; during a whiteout, it is not. This condition can be overcome by using night vision devices (NVDs).

Ice Fog

Ice fog is common in inhabited areas when temperatures drop below minus 35 degrees Fahrenheit. At such temperatures stagnant air cannot hold the water vapor which human activities produce; the vapor materializes as ice fog.

Sources of water vapor include vehicle and aircraft exhaust, steam from heating systems, and even air from humid rooms. In the field such fogs may appear over troops, bivouac areas, motor parks, airfields, convoys, and gun positions, disclosing the area of military activity.

Ice fog can obscure a gunner's vision even with a thermal sight. When combined with soft snow blown up by muzzle blast, the condition may require a gunner to move to another position after the first shot .

Ice fog can limit or negate the effectiveness of NVDs. It also precludes both rotary- and fixed-wing aviation operations.

Snow Cover

Snow cover increases the possibilities for movement and operations of suitably equipped and trained AASLT troops. However, it significantly reduces the mobility of a force which lacks proper equipment and training.

Snow over one meter deep stops all wheeled-vehicle movement except on established roads and in rear areas. Full-tracked vehicles with low ground pressures are best for moving over snow-covered or muddy terrain.

Deep snow can also limit depth in combat missions because it slows movement. Snow depths over 24 inches almost entirely stop movement on foot without the aid of snowshoes.

Reconnaissance by patrols on skis, snowshoes, or in light oversnow vehicles should precede unit movement. Reconnaissance reports should include information on snow depth and ice thickness.

Snow and ice increase maintenance requirements of equipment and weapons systems. Snow cover also reduces the effect of all weapons fires, including artillery or mortar tire.

Ice Cover

The freezing of rivers, lakes, and swamps can increase the possibilities for maneuver. Waterways that are normally obstacles in summer can become frozen routes of advance and LOCs in winter,

making extensive cross-country movement possible. However, such routes are also open to the enemy.

Extreme Cold

Extreme cold slows activities by numbing soldiers and increasing the need for maintenance of weapons and materiel. Activities which normally require only minutes may require hours in extreme cold. Oversnow movement is extremely slow and requires periodic stops to set up warming tents for thawing water and rations and for soldiers to combat the effects of numbing cold.

Troops require special clothing and heated shelters. They must also protect some equipment and supplies against freezing temperatures.

Extreme cold makes metal extremely brittle, increasing breakage of parts in all types of weapons. Soldiers must winterize their weapons and vehicles with special lubricants. However, bringing a cold weapon into a warm shelter causes condensation on the weapon which can freeze and cause a malfunction when it returns to the cold. Consequently, weapons are normally left outdoors unless brought in for maintenance. Extreme cold also decreases ammunition velocity and accuracy.

The commander must consider the following factors during planning: proper planning and suitable clothing, supplies, equipment, shelter, transportation, intensified training, and any impact for conducting AASLT operations without soldier rucks when the SOP dictates.

Daylight and Darkness

Winter in arctic and subarctic regions brings decreased daylight and in some areas no daylight. Conversely, summer has long periods of daylight.

The commander must not regard unusually long periods of either daylight or darkness as a bar to operations. In some situations, these conditions can actually aid operations.

Low-Population Density and Transportation Routes

In artic regions there will be few settlements, supplies, quartering facilities, and LOCs. Therefore, their control or destruction maybe critical. Also, there are few roads and railroads and those that exist usually are vulnerable to enemy action. In addition, climatic conditions may greatly affect their use.

Lakes and waterways may either aid or hinder operations. Units can use them as natural routes of communications or airstrips if covered with ice of sufficient thickness. However, drifted and hard-packed snow may make landing on ice difficult and require engineer preparation of an airstrip.

In the summer, waterways may be either major barriers or LOCs. Many rivers and streams are glacier-fed and carry great volumes of water and silt in summer. The amount of water may vary considerably during any 24-hour period. This is particularly true near a river's source when daytime temperatures are warm and nighttime temperatures are near freezing. Units must conduct continuous, careful reconnaissance to determine water volume changes throughout the day.

Mapping and Navigation

In some regions land navigation is difficult. Lack of landmarks, the presence of large forested areas, periods of reduced visibility, difficulty of cross-country movement, changes in terrain features because of blowing sand or snow, large magnetic declination variations (in extreme northern and southern latitudes) increase the difficulty.

Maps may be unreliable or nonexistent. Therefore, GPS and aerial photographs become an important source of terrain information.

With proper planning, engineer topographic units can convert areial photography into photomaps. However, unless aerial photographs are properly laid out, annotated, and referenced to known survey points, they will not be accurate enough for navigation and indirect-fire weapons.

Weather Variations

Sharp variations in weather are common in cold weather operations. Such include severe frosts, mild weather spells, thaws, rain, sudden freezing, snowstorms, strong winds, and dense fogs.

Rains can halt an attack by making off-road movement impossible. Conversely, a hard freeze

can make a defensive position vulnerable by converting soft lowlands, or even rivers, into avenues of approach.

Accurate weather forecasts are essential to guard against the harmful effects of weather and to seize tactical advantage. The division weather section and its weather prediction capabilities are extremely important. The commander must consider favorable conditions of even short duration as a combat power multiplier.

Seasonal Transition

Climatic changes are abrupt as seasons change. Winter field fortifications can become unusable. A frozen river may become a major obstacle as the ice breaks. Temporary roads and airfields disintegrate; permanent ones become unusable. Rivers flood. Terrain changes rapidly. Areas underlaid by permafrost become bogs. When possible, units should use air reconnaissance to determine possible routes for movement.

The freezing season is shorter and has less effect on movement than the break-up season. The best time for operations is when ground and waterways freeze sufficiently, but before deep snows arrive. Units must also alter camouflage patterns. Careful planning is essential.

In winter, clothing and shelter must protect against cold; in summer, they must protect against water, sun, and insects. Large numbers of mosquitoes are common in arctic regions during warmer months. They can severely impact operations if troops are not properly equipped.

Delayed Responses

Extreme cold increases the time required to perform even simple tasks. Everything is done at a slow pace and takes considerably more time. Troops conducting movements require additional time to adjust clothing and equipment and, many times, they must set up warming tents en route.

In cold weather, leaders must supervise soldiers to ensure they consume sufficient quantities of food and water. Also, soldiers often resist performing routine hygiene functions because of the extreme cold. Establishing buddy teams within an organization can assist in reducing cold weather injuries.

Operations

Errors or miscalculations in planning extreme cold weather operations may be disastrous and corrective action difficult. Synchronizing air and ground forces is more difficult in the cold.

Logistic support must include increased fuel, shelter, and clothing; the need for special equipment; and the need to modify standard items. Plans must provide for alternate means of supply and for increased use of air transport in supply and evacuation.

Soldiers will be able to move only the minimum of essentials. Austere living and self-sufficiency are critical to economy of supplies.

Reconnaissance

Operations in extreme cold are vulnerable to ambush and delaying tactics. Reconnaissance ahead and to the flanks of an advancing column is critical.

Detailed reconnaissance before committing the main force avoids delay, misdirection of effort, fatigue, and unnecessary exposure of troops to the cold. Reconnaissance troops must be mobile, but still carry life support equipment. They must maintain communications with the main body at all times.

Security

Short daylight hours and storms may restrict enemy and friendly air operations. However, the weather may also limit air and ground observation of the enemy.

Dense forests provide a natural screen against air observation for elements not using roads or familiar trails. In open, snow-covered areas, using white covering for clothing and equipment increases protection against observation.

Extreme cold decreases the importance of water obstacles. However, concentrated artillery fire, air bombing, or deliberately placed demolition charges can turn frozen areas of water back into obstacles or traps.

One foot of solid ice can support light tanks while from 3 to 4 feet of ice can support virtually any load. Snow over 18 inches deep limits or completely stops

wheeled combat vehicles except on cleared roads. It can also hamper operation of tracked vehicles.

Mines improperly placed will be ineffective in heavy snow as tanks press them deeper into snow without exploding them. If used, personnel should place mines on a hard surface beneath the snow.

Offensive Operations

The commander must consider climatic conditions and sudden weather changes in planning offensive operations. Heavy snow may fall during an operation, restricting movement and mobility. It can also hinder movement of the enemy's reserve.

A sudden thaw may prevent cross-country movement and cut off troops from adjacent friendly forces. Fog and low clouds can develop quickly and obscure observation. The commander should receive frequent weather reports to aid in decision making before and during operations.

If possible, attack forces should avoid heavy forests and snow drifts. Terrain corridors between wooded areas are preferable to stream valleys, as the latter usually contain deep snow drifts.

The objectives of the attack are critical terrain features which dominate the roads leading away from the enemy's position. Seizing them normally prevents withdrawal, reinforcement, or resupply and may cause the enemy's eventual surrender or annihilation.

Defensive Operations

In general, reasons for assuming the defense apply in all environments. Maneuver units may have to assume the defense because of extreme cold weather phenomena such as breakup, freezing, severe snowstorms, and extremely low temperatures.

Units may deliberately assume the defense to tempt (or compel) the enemy to attack under unfavorable conditions such as through long, narrow passes, deep snow, or across obstacles where movement is difficult and firepower ineffective. This would force the enemy to fight under exhausting conditions while the defender occupies better shelter and maintains shorter supply lines.

Destroying enemy shelter places him in immediate jeopardy. This can permit taking the offense as soon as the situation allows.

Wide, frozen streams and lakes afford little or no cover and provide excellent fields of fire for the defender. Under mild temperatures, keeping the ice of these lakes and streams broken up for a distance of from 20 to 30 feet from shore creates a difficult obstacle.

Heavily wooded areas and open areas relatively free of snow favor the attacker. Units must pay special attention to these areas and defend these areas in strength and in depth.

In conditions of extreme cold, a position's organization requires special tools and explosives. Ordinary entrenching tools are ineffective. A defensive position on the crest of a hill or ridge will usually be effective. Enemy tanks and personnel will have difficulty ascending a steep, snow-covered slope.

The defender holds his most mobile troops in reserve. Because of difficulties in rnovement, the commander should keep his reserves closer to the probable area of employment.

Maneuver units normally counterattack against the flank of an attacker. In deep snow, the enemy may be unable to change his orientation in time to meet a counterattack on his flank by mobile forces.

The defender continually improves LOCs. He opens paths between front-line positions and rear areas and in the directions of reserve employment. The commander should position reserve units to cover thoroughfares to prevent enemy use.

DESERT OPERATIONS

The term desert covers a wide field of arid environments, ranging from the rolling sands of the African Sahara to the mountainous and wadi-covered American Mohave. All have characteristics which can adversely affect military operations: lack of water, limited vegetation, large areas of sand, extremes in temperature, and brilliant sunlight. Field Manual 90-3 is the Army's base doctrine on desert operations.

The Desert Environment

Mountainous deserts have scattered ranges or areas of barren hills or mountains separated by dry, flat basins. Most of the infrequent rainfall occurs on high ground and runs off rapidly in the form of flash floods. These create deep gullies and ravines and deposit sand and gravel around the edges of the basins.

Rocky plateau deserts have relatively slight relief and extensive flat areas with solid or broken rock at or near the surface. They may have shallow, but sharply defined, steep-walled valleys called wadis. Although the flat bottoms and concealment of wadis may seem attractive as CP locations, they can be extremely dangerous because of flash flooding from rains that may occur many miles away.

Sand or dune deserts are extensive flat areas covered with sand or gravel. They may be totally flat for several kilometers or be covered by vast expanses of slowly migrating mounds of sand.

Plant life may vary from none to scrub brush over 6 feet high. Temperatures may exceed 100 degrees Fahrenheit during the day and fall to near freezing at night.

Impact on Operations

Mobility

The key to success in desert operations is mobility, clearly evident in ground operations in Operation Desert Storm. The tactics used to achieve victory over Iraq were wide, rapid flanking movements similar to those German Field Marshal E. J. E. Rommel and British Field Marshal B. L. Montgomery demonstrated in North Africa during WWII.

Trafficability and cross-country movement are critical to desert-operations tactics, and conditions are generally good. However, salt marshes can create no-go conditions during wet seasons.

Sand can bog down traffic and make foot movement slow and exhausting. The steep slopes of dunes and rocky mountains can make vehicle movement impossible.

Wadis, with steep and unconsolidated banks, create cross-compartmented terrain. When it rains, wadis become dangerously rushing streams of water, turning flat lake beds into seas of mud.

In rocky terrain, sharp angular debris easily punctures tires. But, overall, movement is mostly uninhibited. With ample fuel and water resources, units can go around natural as well as man-made obstacles.

With the desert's loose surface material, observers can easily detect movement because of the flying sand and dust. In an actual engagement, this cloud may obscure a unit, protecting it from direct fire as it advances. But the element of surprise is probably lost.

Moving at night maybe the logical choice. The dust is still there, and vehicles (which should be widely spaced) can get separated. But there is no worry about enemy detection from a dust column or the sun's rays reflecting on glass, mirrors, or metal. These can give away movement and positions at distances of up to 20 kilometers.

With the ability to make fast, wide, flanking movements, a unit can encircle and cut off enemy forces. The Israeli forces under General Ariel Sharon did just that to the Egyptian Third Army in the 1973 War. The British did the same to the Italians in North Africa in January 1941.

In Operation Desert Storm, night-fighting AH-64 helicopters, combined with FA fires, were an unbeatable team. An armored force raced to the Euphrates River and attacked Republican Guard positions, cutting off and destroying Iraqi divisions.

Land navigation is a challenge during movement in many arid regions. There are few landmarks, and maps and even photos can become dated quickly, especially in areas where dunes migrate. The GPS with the small, lightweight GPS receivers are a major aid for desert operations.

Refueling and resupply operations require periods in which forces assume the defense, but only temporarily. Compared to rocky plateau topography, the flat, sandy desert topography is not conducive to defense.

In mountains and canyons, a defensive posture can be favorable. Controlling passes can essentially close off vast areas and make an attack extremely costly.

While a unit is in the defense, it needs both ground and air reconnaissance to detect movements at long range and as early as possible. Units must place

obstacles in all types of topography, primarily to slow advances and channel columns. Neglecting these security measures in flat, sandy regions can lead to disaster.

Reports from commanders in Operation Desert Storm indicate that combat units engaged the enemy early and at the maximum ranges of weapons systems. In some cases, units used observed tires because the enemy could move so quickly. The observation helicopter (OH)-58, used with the AH-64 and long-range artillery systems, were the means to this end. But, generally, the Iraqis moved little, and unobserved fires, using IMINT, resulted in substantial destruction.

Observation and Fields of Fire

Observation and fields of fire are generally excellent in most desert areas. Open terrain and a predominantly clear atmosphere offer excellent long-range visibility and permit the use of direct-fire weapons to their maximum ranges. When there is no usable dominant terrain available, units can conduct observation from the air.

Range estimation by gut feeling may be subject to error. Weapons can easily reach their maximum effective ranges. Correct estimation of maximum ranges is critical for all weapons, especially for wire-guided munitions.

There are two primary considerations when using weapons in a desert environment: longer-range observation and fields of fire at the maximum effective ranges. However, rapid heating and cooling of the atmosphere can hinder these factors and cause distortion of ranges to both the aided and the unaided eye. Personnel must use mechanical and electronic means, such as GSRs and laser range finders to verify estimated ranges. Crews must bore sight and zero their weapons more frequently at standard ranges.

Even though the landscape appears flat, closer inspection may show it to be undulating with relatively deep wadis and depressions. Weapons must be sited to provide mutual support. Dead space may be a problem. Leaders must ensure their units cover these areas by indirect fire.

When on the offense, units should initiate attacks with the sun at or near the attacker's back, when possible. This eliminates most shadows that degrade optical weapons guidance and make visual target acquisition difficult. Units must avoid shines and reflections.

Heat distortion, resulting from heat waves at the desert surface, causes other visibility problems. Images shimmer, making positive identification difficult and degrading depth perception.

Range finders can help verify correct distances and bracketing techniques with large adjustments to hit an enemy target with artillery. If distortion renders optical vision hopeless, radars can be valuable and the haze of midday heat will unlikely affect them. However, radars are almost useless in sandstorms.

Image intensification, which depends on the phase of the moon at night, is also of limited value in sandstorms. If there is no moon, personnel use artificial illumination outside the system's field of view.

Because thermal imagery devices depend on the difference between ambient temperature and equipment temperature, they are more useful at night than during the day. Because of the distinct advantages, units should use them as the primary sighting systems for vehicles so equipped.

Observation of fires, especially direct fires by tanks, may be difficult because of dust clouds. Observers may encounter complications when trying to make correction to FA fires, especially those of larger pieces, by dust hanging in the air following the impact of ranging rounds. Forward observers should consider placing initial rounds beyond the target rather than short of the target.

Cover and Concealment

Cover and concealment are generally scarce in the desert. Flat, sandy deserts provide little if any natural cover or concealment, especially from aerial attack or reconnaissance.

Ground concealment and protection from fire can be found behind dunes or in wadis. When using wadis for ground concealment, soldiers must be aware of the potential for flash floods. Camouflage can be effectively employed to improve on natural cover and concealment.

Some arid regions have vegetation that can provide limited concealment from ground observation.

In rocky, mountainous deserts, cover and concealment are best behind boulders and in crevasses.

Daytime vehicle movement eliminates nearly any possibility of surprise, as enemy observers can spot dust trails for miles. Therefore, vehicle movement should occur mostly at night.

At night, noise and light discipline is critical. Sounds and light travel great distances across the unobstructed flatness and through the clear desert air.

Obstacles

Natural obstacles do exist in the desert, and man-made obstacles are effective in arid regions. Wadis and the steep slopes of escarpments, mountains, hills, and dunes hinder cross-country movement.

Sand dunes may stretch for miles and prevent direct movement across their length. Sand dunes are often more than 100 feet high and consist of loose sand with high, steep downwind faces that make vehicle traversing next to impossible.

In some areas, desert salt marshes have crusted tops that deceive vehicle drivers. These dry lake beds can become obstacles, especially in the wetter seasons when the water table is higher.

At times a top crust may form on the surface of a dry lake, but below the crust the soil is moist and similar to marsh conditions. The surface looks like it will have good trafficability, but the crust collapses with the weight of a vehicle, which becomes mired.

The high premium on fuel and time makes it costly to go around natural obstacles. Therefore aerial reconnaissance immediately before any large movement is highly advisable. For example, because sand dunes migrate with shifting winds, they might not be where maps or photographs show them.

Sandy deserts are ideal for employing minefields. Although windstorms can reveal previously buried mines, these mines can still channel movement and deny access to certain areas. (Minefields influenced the battles of the Bi'R Hacheim Line and El Alamein in Iraq.) Other obstacles include ditches, revetments, and barriers made by bulldozing sand mounds or by blasting in rocky, mountainous areas to close passes (the Bar Lev Line along the Suez Canal for example).

Key Terrain

Key terrain in the desert can be any man-made feature, a mountain pass, or a source of water, and of course, high ground. Because there are few man-made features in the desert, those that do exist can become important, perhaps even key.

Roads and trails are scarce in the open desert. Complex systems beyond simple commercial links are not necessary.

Routes joining oil or other mineral deposits to outlet collection points supplement road systems. Wells, pipelines, refineries, and quarrying and crushing plants may have strategic and tactical importance. Pipelines are often raised off the ground, inhibiting movement.

Rudimentary trails exist in most deserts. In many locations, ancient posts and forts, usually in ruins, invariably command important avenues of approach. They frequently dominate the only available passes in difficult terrain.

Passes through steep topography are also likely to be key, again because they are so few. The North African campaigns of WWII focused on the control of passes, specifically the Sollum and Halfaya. In the Sinai Wars between Egypt and Israel, the Mitla, Giddi, and Sudar passes were key. In Afghanistan, control of the mountain passes provided the Mujahideen safe haven from the Soviets.

Other key terrain features include oases and any high ground. Oases become important for water resupply. High ground is always a fair bet for key terrain. For example, the relative flatness and great distances of some deserts, such as in Iraq, make even a large sand dune a key feature.

Avenues of Approach

Avenues of approach do not have clear definitions in arid regions. The vast, relatively flat areas permit maneuver from virtually any direction. This point became obvious to units establishing defensive positions in Operation Desert Shield. Wide envelopments are also possible.

Modern sensor technology, limited natural concealment, and improved observation make the element of surprise a challenge. Yet, the coalition did achieve surprise during Operation Desert Storm. The presence of US tanks in defensive perimeters shocked Iraqi commanders.

Fuel is the major limitation when considering avenues of approach. The great distances a unit must travel to outflank enemy positions require huge amounts of fuel and complicate resupply.

In mountainous and canyon topography, avenues are much more limited; wadis and valleys are likely to be the only possible access routes. Any roads that do exist are probably in valleys. Nevertheless, none of these considerations preclude the use of such tactics.

Techniques for Operating Vehicles

The best time to drive on sand is at night or early morning when the sand is damp and traction is better. By reducing tire pressure, vehicles may gain some traction. However, prolonged driving on partially deflated tires overheats tires and breaks down sidewalls.

Evenly distributing loads helps operators control their vehicles. Also, operators must apply good driving skills to avoid harsh jolting of tires and extreme wear on tracks, wheels, springs, and shock absorbers.

Crossing dunes requires careful reconnaissance. Units should stay on the upwind side if possible. The wind may have built up sand around small scrubs forming small hills. Because of poor traction, wheeled vehicles should not attempt to move through areas where this has occurred.

Salt marshes are normally impassable, especially those with a dry crust of silt on top. A surface crust might cover sandy areas, which could impede travel.

To extract a sand-trapped vehicle, units should carry at least enough pierced steel planking or galvanized iron to put under, and allow traction for, the driving wheels. Also effective are canvas sand mats, preferably with lateral strips of metal for strength and traction.

Other essential emergency equipment includes jacks, jack blocks, tow ropes, shovels, axes, and picks for use in vehicle recovery. Winch-equipped vehicles should not normally lead movements; they should locate near the rear.

JUNGLE OPERATIONS

The US Army has a long history of fighting in jungles—in WWII, Vietnam, and most recently, Panama. Because Army contingency plans include operations in jungle areas, jungle warfare for the AASLT division remains a distinct possibility. Field Manual 90-5 is the Army's base doctrine for jungle operations.

Jungle Environment

Dense vegetation, high temperatures (averaging from 78 to 95 degrees Fahrenheit), high humidity (90 plus percent), and heavy rainfall (1,000 centimeters or 400 inches per year) characterize jungles. In jungles close to the equator, seasons are nearly alike. Further from the equator there are distinct wet (monsoon) and dry seasons.

Types of Jungles

Primary jungles are tropical forests with well-established trees. Primary jungles include tropical rain forests and deciduous forests.

Tropical rain forests have large trees whose branches interlock to form canopies. Canopies may form at two or three different levels and prevent sunlight from reaching the jungle floor. As a result, there is little undergrowth. This makes movement by foot easier than in other types of jungles. However, extensive above-ground roots, hanging vines, and soggy ground makes vehicle travel difficult. Observation from the air is nearly impossible and ground observation is difficult.

Deciduous forests are found in subtropical zones. In wet seasons, trees have their full foliage; in dry seasons much of the foliage dies. Trees are less dense than in a rain forest, with more sunlight and rain filtering to the jungle floor and, consequently, more undergrowth.

In the wet season, limited observation from the air and ground is normal and movement is more difficult. In the dry season, observation and trafficability improve.

Secondary jungles occur when the ground repeatedly gets exposed to the sun, such as at the edges of a primary jungle and in areas where humans have cleared and abandoned the jungle. Secondary jungles are overgrown with weeds, grasses, canes, and other vegetation. Foot movement is difficult, and the maximum ground observation is only a few meters.

Common Jungle Features

Jungle areas are not characterized solely by trees and undergrowth. In the tropics and subtropics, local jungle areas have special characteristics, including swamps, savannas, bamboo thickets, and active or abandoned cultivated areas.

Swamps occur in low jungle areas or depressions with poor drainage where water can gather. Movement is normally limited to foot and small boats. Air and ground observation is limited.

Savannas are broad, open grasslands where trees are scarce and grasses are thick and broad-bladed. Vehicle movement is easier in savannas than other jungle areas, but movement by foot is slow and tiring because of the tall, dense, sharp-edged grass. Observation varies from poor to good.

Bamboo grows throughout the tropics. Large bamboo thickets obstruct vehicle movement, and troop movement through bamboo is slow, tiring, and noisy.

Cultivated areas include rice paddies, plantations, and small farms. Generally, observation is less restricted in cultivated areas. Ease of movement varies.

Rice paddies are flat fields that are flooded during part of the year through a series of dikes and irrigation ditches. Paddies hinder foot movement when wet and generally prevent vehicle movement whether wet or dry.

Plantations are large farms where tree crops like rubber and coconut grow. The ordered rows of trees generally allow easy movement.

Small farms are created by cutting down and burning off existing jungle vegetation. Crops are grown for a few years, then the farms are typically abandoned. These abandoned farms may hinder movement when they become overgrown.

Jungle Operations Considerations

Jungle combat is characterized by long periods of developing the situation and looking for the enemy followed by short periods of violent and sometimes unexpected fighting. Jungle combat involves fewer conventional attacks and defenses and more ambushes, raids, and meeting engagements.

Heavy vegetation reduces observation and fields of fire, which makes high ground less significant as key terrain. Roads, rivers and streams, fording sites, and LZs are likely key terrain. However, operational orientation remains on the enemy rather than on retaining or controlling terrain.

The range of TOWs and DRAGONs is limited in dense jungle vegetation. Artillery fire support is difficult to observe and adjust. TACAIR and helicopter weapons systems provide an alternative to conventional artillery fire support.

Navigation and Mobility

Topographic survey of jungle areas is mainly by air. Jungle maps show large terrain features, but do not always show smaller features such as gullies, small swamps, and intermittent streams.

Older maps may be inaccurate, especially in depicting trails and clearings which can rapidly become overgrown. Aerial photographs and information from patrols, local inhabitants, and others who have been in the area can help update maps.

Heavy vegetation makes land navigation difficult. Moving through a jungle is difficult and slow. Thick vegetation and lack of roads hinder vehicle movement.

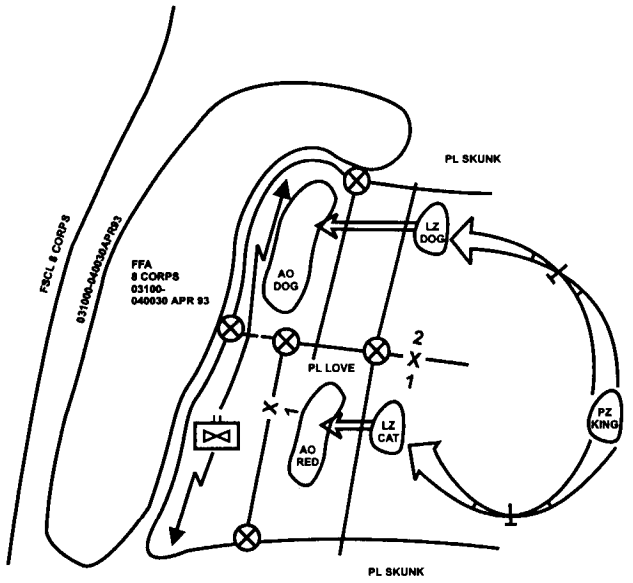
Dense vegetation, heat, and rugged terrain cause troops to tire quickly. Using a compass and an accurate pace count are vital.

If available, the best source of navigation is the GPS. However, dense jungle canopies may cause signal interference and limit GPS effectiveness.

Communications

The jungle environment has a negative effect on communications. The dense foliage reduces the range of both visual and sound communications.

Radio range is reduced, typically from 10 to 25 percent, because of thick foliage and rugged



Techniques:

- Units place a greater dependency on GPS and aerial observers as land navigation aids.
- Aerial observers provide course and route guidance.
- Graphics are tied to terrain features.
- Units may use phase lines as permissive FSCMs; shifting from one PL to another is event-driven.
- Units accomplish flexibility and control of indirect fires through an execution matrix.
- Boundaries are beyond maximum effective range of enemy and friendly direct fire weapons.
- Commanders position boundaries and restrictive fire control measures to allow immediate suppression missions, force protection, and security.
- Commanders achieve control by assigning responsibility for an AO.
- Brigades identify objectives within the commander's intent and available intelligence.
- The 2d Brigade in the north lacks information and intelligence on enemy strength and location.
- The 1st Brigade in the south has better information.
- Aviation initially screens across the entire front.
- A boundary change occurs (affecting aviation) when the 2d Brigade crosses PL Skunk.
- A combination of aerial observers and the GPS aid permissive fire control measures during movement.
- Units designate control measures by GPS location plus a specified distance.
- Lacking favorable conditions, units place greater reliance on aerial observers.

Figure 7–6. Example defensive jungle operations

terrain. Rain and humidity can cause communications equipment to fail.

Laying communications wire in a jungle takes time. Aircraft may be needed to assist in wire-laying operations.

Offensive Operations

The jungle environment poses several challenges for the attacker. Thick foliage hinders control. Seeing the battlefield is difficult and requires the coordinated use of security patrols, air and ground reconnaissance, and movement.

In a jungle, the momentum and speed of an attack are difficult to maintain. Thick vegetation makes it difficult to move and accurately fire heavy weapons. The jungle does, however, provide concealment for infiltration (Figure 7-6).

Defensive Operations

The density of jungle foliage impedes the detection of approaching enemy forces and slows

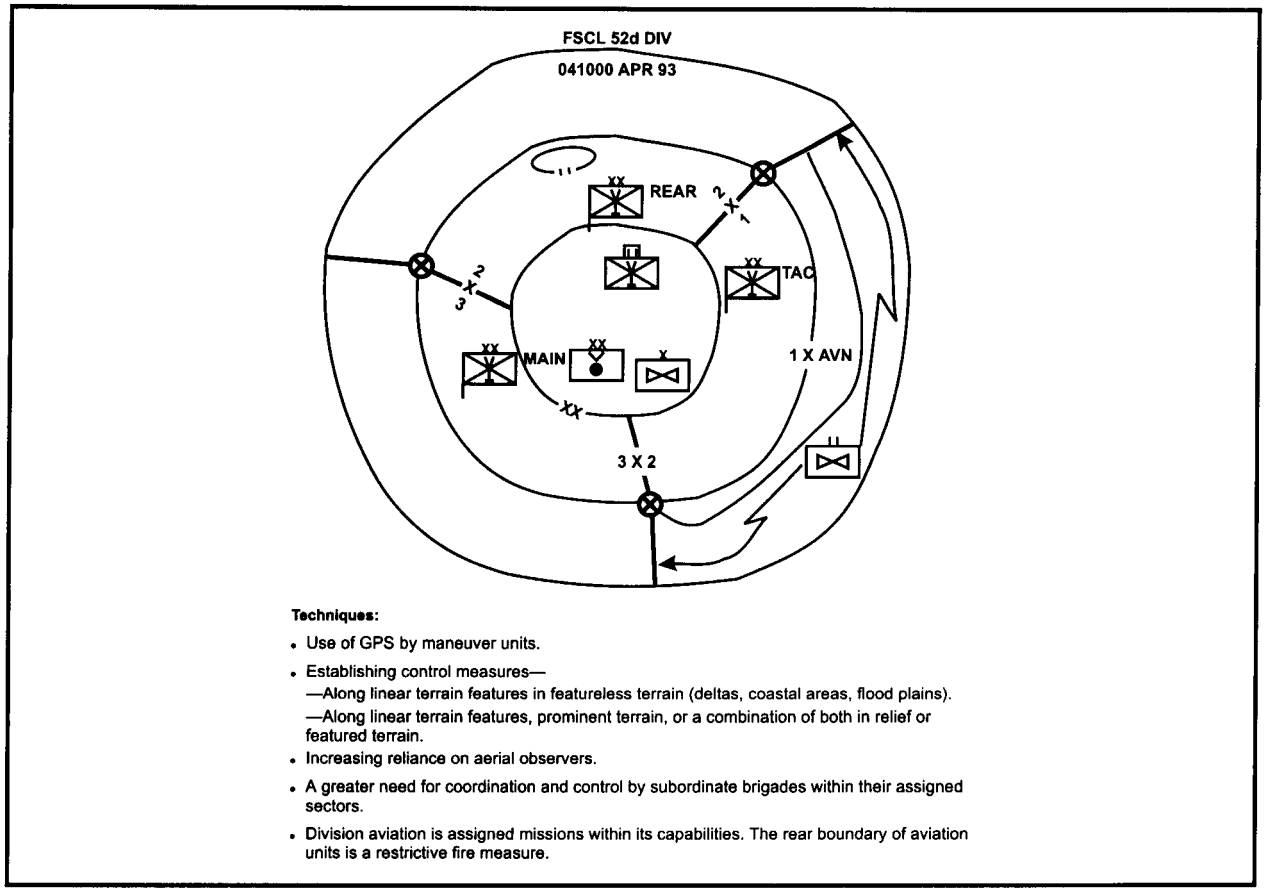


Figure 7–7. Example defensive jungle operation

movement in reaction to an attack. Because foliage limits fields of fire and decreases visibility, defensive positions normally must be carefully selected. The defending force must use OPs and NVDs to provide early warning, especially against infiltration attempts (Figure 7-7).

Combat Service Support

Lack of roads in the jungle hinders resupply and evacuation. In a jungle environment there are more litter cases than in other environments; even lightly wounded soliders may be unable to walk through dense undergrowth. Litter teams may be required to initially evacuate the wounded.

Air transport is critical, but not always available. Soldiers must be able to move with only minimum essential supplies. Austere living and self-sufficiency may be critical to jungle operations.

RETROGRADE RIVER CROSSING OPERATIONS

Many locations throughout the world have rivers that function as obstacles to military operations. Therefore, US forces may need to conduct retrograde river crossing operations. This section summarizes these operations. For more information see FM 90-13.

A retrograde river crossing is a special operation that requires detailed planning and support. Normally, the extent of the water obstacle and the enemy situation dictates just how to accomplish the crossing.

The force usually conducts a retrograde river crossing when enemy advances threaten to overwhelm the division. The commander responds by directing some form of retrograde operation.

While executing a retrograde operation, the division may be subjected to possible enemy pursuit. If so, the force conducts a retrograde river crossing to accomplish one of two objectives—to establish a new defense on the exit bank of the river, and/or to continue the retrograde to new defensive positions designated beyond the obstacle.

Retrograde river crossings are not merely offensive river crossings conducted in reverse. They are characterized by the following:

- They require detailed planning and centralized control.
- The enemy controls maneuver initiative.
- There is a high risk to friendly forces.
- Delaying forces must impede the enemy's advance to trade space for time at the crossing sites.
- Forces on the exit bank must provide defensive and overmatching fires.

The same amount of detailed planning associated with a deliberate offensive crossing must also be applied to a retrograde river crossing. For planning purposes, the crossing operation has three distinct actions-delay, defense, and crossing. They occur concurrently.

The delay's primary purpose is to trade space for time. Time gained allows the corps' main body to move across the river.

Corps elements not engaged in the delay execute a planned retirement or withdrawal and cross the river as quickly as possible. These elements are assigned various missions within the crossing area or in the defense which is established on the exit bank. Moving these elements toward and across the river must be consistent with the overall retrograde the entire corps is conducting to preclude the enemy's early detection of actual crossing sites.

The commander directs delay operations to continue until delay forces reach the battle handover or holding line. Repositioned units occupying assigned defensive positions on the exit bank then assume responsibility for the battle. Finally, the delay force disengages and begins its rearward crossing.

Establishing a strong exit bank defense in each division sector occurs at the same time as the execution of delay operations. The defense of the exit bank must be as strong as possible with the available troops. The defense's primary mission is to overwatch the crossing of the forces remaining on the far side of the river.

Once the commander directs defense forces to assume responsibility for the battle, they are expected to defeat, or at least contain, the enemy in a specified area. This is essential for successfully completing the crossing. As units engaged in delay operations negotiate the crossing, they are incorporated into the defense or prepare to assume the delay mission if further retrograde operations are warranted.

Because friendly forces control both banks of the river for some time before the operation, they should continually improve and repair existing bridges and crossing sites. They install or pre-position to the rear all available tactical bridging and rafting within the corps to supplement existing crossing means.

The activity begins with the actual crossings of CSS elements. These units evacuate all nonessential supplies and engage in prestocking delay and defense forces. Crossing sites within the rear area should be fully operational early in the retrograde to allow elements not involved in the delay to cross the river at the earliest possible time consistent with the tactical situation.

Characteristics of operations within the retrograde crossing area include—

- Rapid and controlled flow of traffic across the river.
- Maximum use of concealment and dispersal.
- Coordinated crossing of equipment and supplies.
- Coordination between defense and delay forces for use of crossing sites by the latter.

The difficulty of command, control, and coordination of retrograde crossings requires a clearly understood delineation of missions and tasks between delaying, defending, and support forces.

Because the enemy has the maneuver initiative, it is essential to employ deception operations as an integral part of the plan. Deception should be planned and executed to deceive the enemy regarding the retrograde. The deception story should conceal the location and the extent of crossing operations.

Chapter 8
DEEP OPERATIONS

DEEP ATTACK

Field Manual 100-5 states that ASSLT infantry units have great tactical and operational mobility. They train to fight across the range of military operations.

Air assault infantry units' significant antiarmor capability, AASLT artillery, and attack and lift aviation, joined with their strategic deployability, makes them particularly well-suited as an early deploying force in contingency operations against heavy forces. They can penetrate deep into enemy territory to cut LOCs, seize airfields, destroy C^2 nodes, block reinforcing units, or seize key terrain. Because of their agility and mobility, AASSLT infantry units are also well-suited for covering force operations.

The purpose of deep operations is to deny the enemy freedom of action and to disrupt or destroy the coherence and tempo of his operations. Deep operations can also isolate the close battle by preventing the enemy from concentrating his forces. Its depth expands the battlefield in time, space, and resources.

Attacking enemy formations in depth destroys, delays, disrupts, or diverts enemy combat capability. Simultaneous attacks in depth cause confusion, destruction, and demoralization.

Going deep characterizes AASLT operations. Regardless of the overall situation, offensive or defensive, AASLT commanders look for opportunities to go as far behind hostile forward forces as possible to attack key enemy ground forces, command facilities, logistic areas, and/or AD systems.

Synchronization

Synchronizing simultaneous attacks in depth requires commanders and staffs to think in terms of commander's intent, battle space, time, and operational capabilities. For future operations, divisions consider each of these dimensions beyond the deep, close, and rear framework of previous doctrine.

Division deep operations include tactical activities directed against enemy forces not in contact. The division commander must envision his battle space as his personal domain. Battle space is the physical volume determined by a commander's capability to acquire and dominate the enemy. He does so by reviewing the corps or JTF commander's intent and concept of how the corps or JTF will fight the battle.

The corps or JTF commander envisions a series of smaller battles where subordinate divisions defeat and destroy the enemy piecemeal. The corps or JTF commander articulates this vision as an implicit contract with division commanders as to what they must do, a concept of time or events, and how the corps or JTF creates favorable battlefield conditions for divisions to defeat enemy forces. He sees a combination of simultaneous operations, a series of division battles by time or event windows, locations in depth, combat power ratios, and specific desired results. Units use deep operations to influence enemy forces so divisions can destroy them.

The division commander envisions the battlefield in terms of depth and time to develop simultaneous operations via a series of engagements for brigade-level units. He develops a deep operations plan to conduct simultaneous operations in depth.

Deep operations normally impact close operations. (See the deep attack synchronization matrix in Figure 8-1.) To ensure an effective system, the commander and G3 plan, control, and synchronize deep operations. The G3 is the primary staff officer responsible for deep operations. He tasks fire support and intelligence BOS targeting and execution.

Destruction of enemy forces in the deep operation is not always the intent and is difficult to achieve because it requires massive resources. However, lethality of ICMs in an air superiority environment make destruction possible.

Limiting enemy movements is an asset-intensive goal requiring significant reinforced terrain obstacles. Therefore, disruption is probably the most realistic goal. Disruption reduces the enemy's correlation of forces by desynchronizing or delaying subordinate elements.

		F-36 to F-12	F-12 to F-10	F-10 to F-8	F-8 to F-42	F-4 to F-2	F-2 to F-1	F-1 to F+1
DIVISION ACTION	INTEL	Request DF of ADA nets jam at F-Hour TVA/HVT/HPT Select TAI/NAI based on cdr's intent Request coll assets fm div and theater MI Bde Request info from LRST	Follow-up request → Collect info on movement Follow-up requests and results →	Request info from MI Bn DST finalized	→	Analize info →	→ Go/No Go Brief	MISSION
BRIGADE ACTION	MANEUVER	AHB preps for ops → AHB preps for ops →			F-8: Prep OH-58D for OPCON to AHB and FARP ops	AHB ready for ops F-4: 2 OH-58D OPCON to AHB	AHB ready for ops AHB conducts deception Go/No Go Brief	
DIVISION ACTION	FIRE SPT	Targeting cell meets Preplan SEAD Request preplanned AI, deep CAS into EA; request RECCE Develop A2C2	Develop HPTs based on cdr's intent Finalize tgt list Ensure EAs are finalized Link to ACA	Detailed FS planning SEAD, EA, CAS, FSCM, (RFA, RFL) Request priority of fire and Q-37 for Avn Bde Follow-up on air request	F-5: No more preplan tgts accepted Update tgt list and control measures → SEAD plan completed	Fire general SEAD program of fires	Priority of fire to the AVN Bde Fire SEAD for AA → Q-37 orients on EA for deep atk → Go/No Go Brief	
	ADA						Go to weapons hold	EXECUTION
BRIGADE ACTION	C2	Avn Bde TAC prepare to collocate with div main CP	Avn Bde TAC collocates with div main CP		Avn Bde TAC ready for ops		Go/No Go Brief	
	CSS	Select fwd sites for FARPs		FARPs move fwd		FARP 1 is operational	FARP 2 is operational	
DIVISION ACTION	DECEP	Plan AASLT with AHB →				→	AHB begins air movement	
	DECN PTS					Has the enemy been found? Ajust EAs?	Are tgts at NAIs confirmed at F-27? Send OH-58D to find enemy?	
	AVN ABDE	Div publishes control measures for deep battle	Finalize OPORD	WO to AHB prepare to OPCON OH-58D	FRAGO to AHB OPCON 2 OH-58D to AHB →	Send out OH-58Ds →	FRAGO to AHB	
	KA EC YT	Prepare OPORD, coordinate assets	Coord with div staff and ACA	Coord assets for deception Coord w/ div FSE →	Receive tgts and FSCM →	→ Collection of Intel	Go/No Go Brief	

Figure 8–1. Deep attack synchronization matrix (continued)

	F-1 to F-0:15	F-0: to F-HR	F-HR to F+0:15	F+0:15 to F+0:40	F+0:40 to F+1
INTEL	Receiving timely data from OH-58D:Pass to AHB Final SPOTREP before crossing FLOT Update enemy locations	QUICK FIX jamming		Receive BDA	Send BDA to higher HQs
MANEUVER	AHB moves to atk pos and passage points AHB executes deception	AHB crosses FLOT	AHB arrives at IP	AHB engages tgts, then breaks contact and egresses to the FLOT AHB ceases deception ops	AHB to FARP AHB to FARP
FIRE SPT	Execution matrix initiated Final coordination	Execute ingress SEAD FSCM go into effect AI to EA	AHB egress SEAD	Deep CAS OH-58D calls fire on remaining tgts Execute egress SEAD	
ADA	Weapons hold				
C2	Activate A2C2 plan Division Main CP				
CSS					
DECEPTION	AHB executes and controls deception plan				
DECISION POINTS	Is there a clear picture of the enemy location? Did the OH-58Ds go forward? What did he see? Use OH-58Ds to lead AHB to EA?		Does the target require more observation? Commit more OH-58D to observe?	Does BDE meet the cdr's intent/CCIR? Reengage EAs? Do OH-58Ds need to remain on station?	
AVN BDE	Coord FLOT crossing			Aircraft lost/missing recovery	
KEY ACTION	Coord artillery with AI Execute deception			BDA: Decision for addtional attack	Prepare for another deep atk

F-Hour = Cross-FLOT time

Figure 8–1. Deep attack synchronization matrix

The commander cannot just target a unit for destruction or specify an unreasonable delay period. Deep operations include the cumulative effects of many different actions on the enemy.

Tangible actions include attrition, destruction, and delay of combat formations that generally alter combat force ratios. Intangible actions alter combat power multipliers by degrading or disrupting enemy cohesion, synchronization, massing, sustainment, or control.

The division plans and directs deep operations, such as AI, deception, PSYOP, EW, direct-action SOFs, counterfire, complementary SEAD, and maneuver within the close battle. They produce effects at specific points of attack, counterattack, or defense.

Deep operations are not continuous, nor do units sustain deep operations at constant levels of effort. Planning for deep operations is a continuous process.

Units develop deep operations to achieve specific results based on METT-T. Units schedule limited assets to support deep and close operations execution.

Close operations should never totally depend on the results of deep operations. The effect of deep operations on combat power ratios is a key factor in determining when and where to accept or initiate decisive close battle. The unit conducting deep operations creates favorable conditions before risking potential critical losses in decisive close battle.

Targeting

The commander develops his deep operations concept when war-gaming COAs. Either echelon may reserve specific targets or missions as deep operations. Examples are counterfire against specific artillery echelons or mission-capable units, or counterfire into one specific area, reserve units, and division C^2 facilities.

Units may also attack specific targets reserved by type anywhere on the battlefield when a unit reserves these targets. However, the unit must identify these targets by means other than map reconnaissance.

The commander makes the decision to fire on templated locations while war-gaming. Units reduce risk when the target is under surveillance by HUMINT or SIGINT sources.

Corps deep operations normally—

- Interdict enemy operational reserves (regiment- or division-size forces).
- Degrade C^2 facilities.
- Destroy sustainment facilities and distribution assets.
- Destroy enemy rocket and tube artillery assets.

The division normally—

- Attacks uncommitted forces.
- Disrupts movement of reserves or counterattacks.
- Destroys enemy division C^2 facilities and ADA systems.
- Conducts counterfire against DS and GS artillery opposing brigades.

Units plan deep operations using the estimate of the situation. (See FM 101-5 (D).) The estimate of the situation process also incorporates targeting methodology. (See also Figure 8-2.)

The AASLT division can conduct large-scale, deep operations over time. Because of this unique capability, the AASLT division plans large operations to support deep operations to support a corps or JTF scheme of maneuver.

DECIDE, SET CONDITIONS, EXECUTE

The AASLT division uses a "decide, set-the-conditions, execute" methodology for planning deep operations and a “decide, detect, track, deliver, and assess” methodology for deep targeting (Figure 8-3). The result is an effective, division-controlled, brigade-scale deep operation.

Commanders state desired damages (destroy, suppress, or neutralize) and associate them with enemy units to achieve desired results. Targeting teams use this targeting guidance to evaluate targets according to attack criteria.

Direct attacks attrit enemy combat forces. Indirect attacks attrit assets, facilities, or systems which support enemy forces.

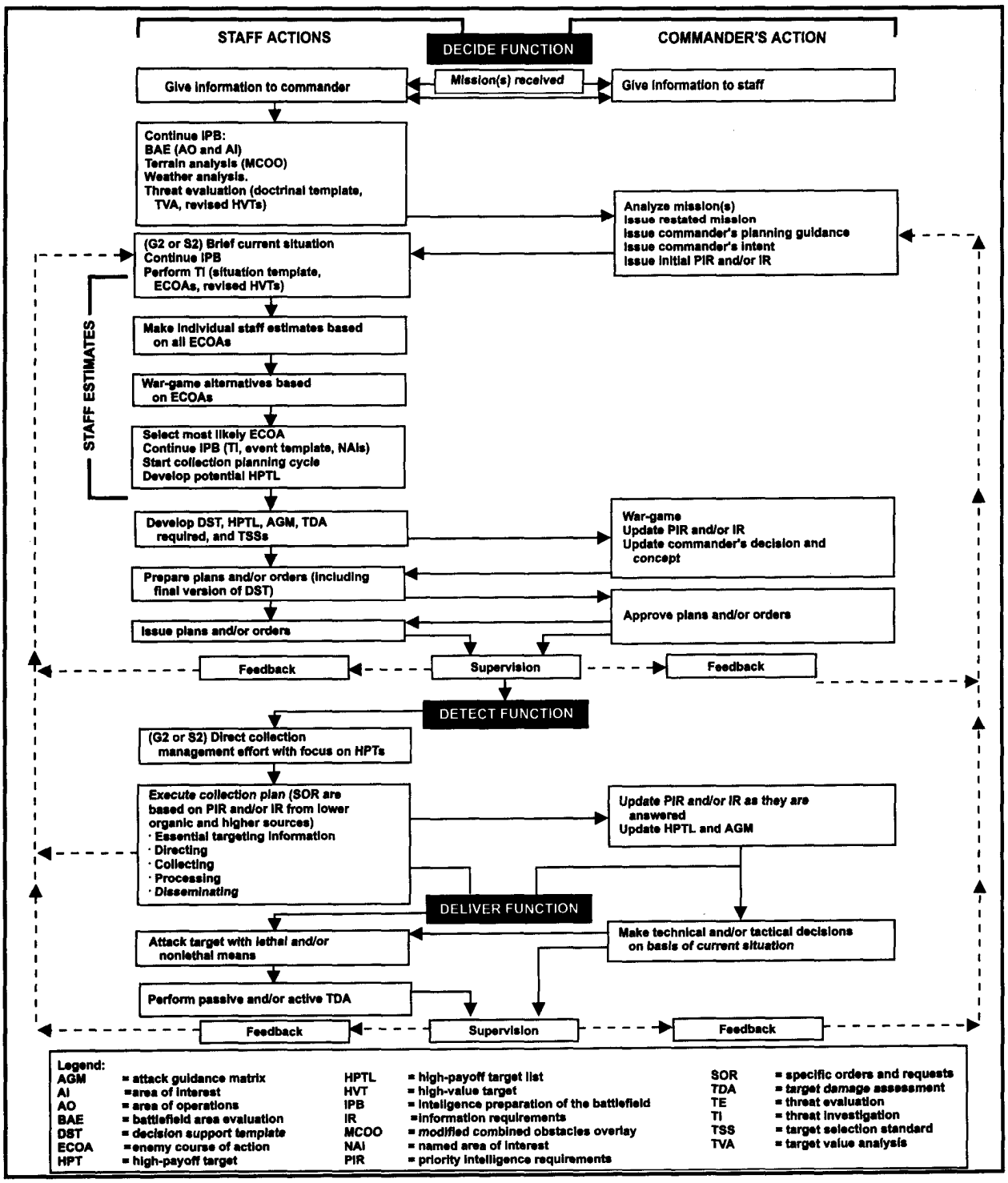


Figure 8–2. The targeting process

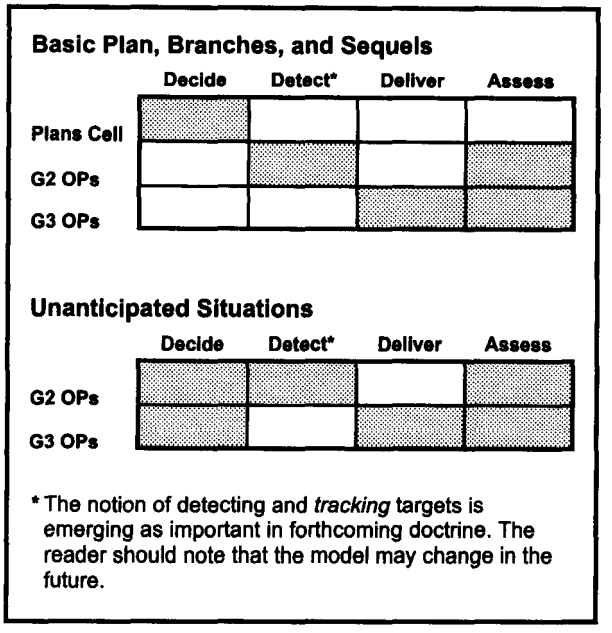


Figure 8–3. Deciding, setting conditions, and executing deep operations

Evaluation begins with the development of the HPTL. The targeting team matches systems to the detection means and target effects.

The targeting team is a fill-time organization. The commander is present for planning and wargaming. The members are readily available during the operation.

The team functions as a fill-time decide, detect, track, deliver, and assess targeting team. They develop the decide phase and control the execution of the detect and track, deliver, and assess phases by subordinate and supporting units or headquarters.

The G3, G2, and DFSCOORD and/or assistant division or corps aviation officer continuously monitor the current battle, deep operations BDA results, intelligence assessments, and sequel mission requirements. The G3 issues FRAGOs to change decide guidance or to provide new guidance when required.

The G2 is the principal controller for the detect and track and assess phases. The DFSCOORD is the principal controller and coordinator for technical planning and the tasking of the deliver plan and for executing long-range fires (including USAF missions). The aviation brigade commander is the principal controller and coordinator for technical planning and the tasking of the deliver plan and execution by aviation assets (Figure 8-4).

Cross-FLOT operations encompass the highest risk of combat missions—making it through enemy lines and going deep with the intention of staying. The AASLT division offers the corps or JTF commander a force that conducts raids and air assaults in great depth. To go deep, the AASLT division works through three sequential steps: deciding, setting conditions, and executing.

Deciding

Deciding the deep operation's mission comes first. The task is offensive in nature, revolving around seizure of key terrain or defeat of a specific opposing formation. Deep attacks usually aim to interdict enemy LOCs, block enemy reinforcements, destroy crucial service support facilities and CPs, or cut off withdrawals.

When formulating a deep mission, planners constantly consider the degree of risk to friendly forces. By their nature, cross-FLOT operations present soldiers with a "win big/lose big" proposition.

A successful deep operation might decide the entire campaign. On the other hand, a brigade that goes deep may well be cut off and lost forever. Every cross-FLOT operation risks the prospect of thousands of soldiers dead, wounded, and missing in a single night.

With its mission and the higher HQs' mission or intent in hand and risks assessed, the division designs a proposed concept and designates CCIR that support the concept. These are the products of the decision phase. The division commander determines if the mission justifies a raid or an air assault and how much force to commit.

Deep operation division CCIR reflect and summarize conditions the division sets. The CCIR is a guide for setting conditions.

As operations continue, the division adjusts CCIR. The division may not fulfill or reliably satisfy all CCIR. Such gaps and uncertainties increase the degree of risk.

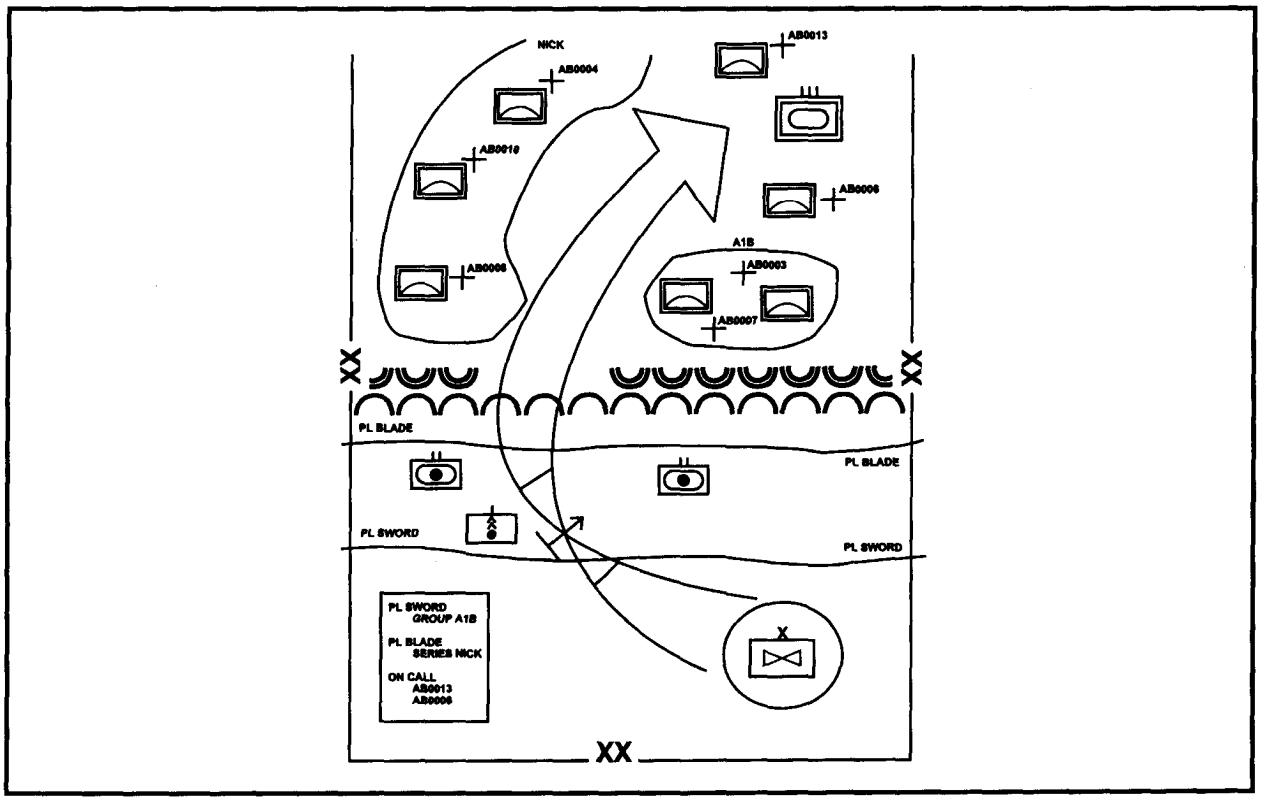


Figure 8–4. Technical planning and tasking of the deliver plan and execution by aviation assets

Setting Conditions

The division may make a good mission decision based on only a map and intuition. But the best decision will not hold up unless the division, and sometimes the corps or JTF, works hard to set the conditions for victory.

Setting conditions involves combat operations, including deception operations and all types of raids and perhaps even battalion-scale air assaults. Thoroughness reduces risks and increases opportunities for a decisive cross-FLOT success.

With aggressiveness and some luck, condition-setting operations can defeat the enemy before the actual raid or air assault. The division adjusts the mission's final scale, composition, and destination based on conditions set for it.

Battlefield operating systems receive attention to prepare for successful cross-FLOT missions. Intelligence, fire support, C^2, CSS, and maneuver demand extraordinarv interest as the division works to answer the CCIR and to set conditions for battle.

Intelligence rightly holds primacy. Air assault forces planning to go deep need to find out five things about the foe:

1. They look for the enemy's AD array, which can destroy deep aviation operations.
2. They try to pinpoint hostile artillery.
3. Intelligence experts search for the opponent's C^2 nodes and networks.
4. The division locates enemy maneuver-defending forces on or near prospective LZs.
5. Intelligence sections identify those mobile reserves in position to threaten deep maneuver forces.

All of these efforts validate the detailed IPB situation template through steady collection work by aviators, long-range scouts, electronic scanners

target-acquisition detachments, and national assets. Deep targeting means, such as JSTARS, UAVs, and SOF, prove especially helpful for far-ranging AASLT forces. The desired outcome is a reliable picture of the threat, including a reasonable basis for assessing damage inflicted by preoperation fires.

Compiling accurate BDA data creates a tremendous challenge for intelligence analysts. Intelligence elements employ every means possible to verify target kills and to adjust the number of remaining enemy ADA weapons, artillery tubes, or tanks to clarify the CCIR. Particularly good sources include TACAIR and Army aviation gun camera videotapes, UAV videotapes, reports from SOF and LRSTs, and overhead aerial and space imagery.

Order of battle specialists should also remain alert to overall enemy patterns of activity, such as dramatic reductions in hostile artillery barrages or ADA fires, which could indicate breakdowns in these complex coordinated systems. Even in the best of circumstances, the BDA may simply offer a veneer of numerical certainty over otherwise more subjective estimates.

Fire support destroys and suppresses what intelligence finds. Air assault forces rely heavily on supporting JFACC sorties to strike far beyond the FLOT. TACAIR, Army attack aviation, reinforcing corps artillery (particularly MLRS batteries) combine with organic artillery, artillery raids, and electronic jamming to destroy key components in the enemy's AD grid.

SEAD is paramount. Lethal friendly artillery fires suppress, neutralize, and destroy known and suspected threat AD weapons and affiliated warning posts and CPs.

Nonlethal friendly EW aircraft (such as the EH-60A Quick Fix IIB aerial jammer) contribute to SEAD programs. Air Force, Navy, and Marine flak-suppression and EW aircraft combine to defeat enemy AD along flight routes and near LZs.

The division routinely plans and executes SEAD or JSEAD along multiple air routes to provide options and help confuse the enemy. SEAD and JSEAD provide the capability to cross the FLOT.

Once the division opens the enemy's ADA umbrella, fire support concentrates on freeing Army attack aviation to operate in the opposition's rear areas. Night-capable AHBs excel in identifying and destroying enemy AD positions, artillery units, headquarters, and vehicle parks.

Command and control of an AASLT operation undergoes its greatest test during condition-setting. Substantial intelligence and fire support means, including aviation and maneuver battalions fighting for combat information or battling enemy gunners, are already deep. Yet, the main effort remains 90 miles distant, waiting to go.

Micromanaging all of the moving pieces in an AASLT operation cannot happen. Command solutions include mission orders, detailed rehearsals and backbriefs, and most important, mutual trust based on shared experiences and an open command climate.

Control includes a reliance on a few simple but accurate reports twice a day, well-disseminated procedural controls for congested airspace, and smart use of available HF and satellite communications. For cross-FLOT missions, success in the C^2 system amounts to centralized planning and decentralized execution.

Combat service support feeds the ravenous intelligence and fire support efforts to sustain the pressure. Logisticians also echelon their elements to project support forward 90 miles along tenuous air lines of communications (ALOCs).

Planners in the DISCOM designate tailored, multifunctional forward logistic elements (FLEs) to accompany the AASLT brigade into initial LZs. Follow-on aviation lifts build this austere logistic assault base into a full-blown FLB capable of servicing and sending forth additional AASLT and attack aviation raids.

Ideally, a ground supply route opens within 72 hours of the landing. This becomes the primary LOC.

The struggle to man, arm, fuel, fix, and sustain soldiers and systems, once won, underwrites the success of both condition-setting and execution phases. Setting up sound deep logistics is an absolute necessity; it has to work, or nothing flies.

The division may commit maneuver forces to rear operations to defend vulnerable aviation avenues of approach, refueling sites, and ammunition dumps. Aggressive rear operations eliminate enemy stay-behinds and infiltrators and allow air assaults and

raids to proceed unhampered by the enemy's corresponding deep efforts. Because of the limitations of assault aviation's lift capacity, it cannot simultaneously commit all AATFs to cross-FLOT operations. There are always some forces available to carry out rear operations.

Executing

Even with a sound decision and the battlefield shaped for decisive action, executing an effective deep operation is difficult. It demands a rapidly increasing series of targeted blows that peak at H-Hour—aircraft touch-down time. A raid employs most of these same techniques except that attack aviation raids do not insert ground troops.

In air assaults or raids, attack aviation plays a featured role. Having set the conditions to go deep, attack units proceed to enforce the isolation of objective areas, developing a double-ringed aerial cordon around LZs. The cordon includes the following:

- Attack aviation inner/outer rings. One attack battalion, OPCON to the AASLT brigade, creates an "inner ring" ranging out to tube artillery range from the objective. These aircraft concentrate on finding and destroying local enemy reserves, and remain available to intervene directly into the objective area proper if the ground assault runs into heavy opposition. Meanwhile, the division's aviation brigade establishes and maintains an "outer ring" of attack helicopters, roaming out to 150 kilometers beyond the AASLT objective. These attack helicopters destroy enemy mobile forces and rocket artillery that can influence the AASLT objective.
- Preassault fires. Preassault fires include en route J-SEAD and final preparations for all LZs and known enemy locations.
- Timing of H-Hour. Planning takes into account the effects of weather, enemy action, and friction by synchronizing all actions based on an adjustable H-Hour. Ideally, H-Hour becomes a hard time based on events and conditions, not time.
- Continuous combined arms effort ("follow through"). Close combat and immediate sustainment complete the seizure of the AASLT objective. All arms and services press the fight until the objective is secured. Priority then shifts to logistic buildup to start setting conditions for follow-on air assaults.

BATTLE RHYTHM

Decision and condition-setting phases may last many days, but an AASLT division can operate at a much quicker tempo—one of its true strengths. Any modern Army or Marine Corps division may mount an AASLT operation during combat. However, they will probably not conduct frequent, large-scale AASLT operations and almost certainly will not conduct them every 24 hours. An AASLT division can conduct large-scale (brigade-size) AASLT operations every 24 hours.

During continuous operations, the AASLT division, each of the three maneuver brigades, and the aviation brigade, should expect to be working a distinct part of the three-step, cross-FLOT process. Each step takes about 24 hours.

The result is a brigade AASLT or aviation brigade attack operation from about 48 to 72 hours after the decision process begins (Figure 8-5). It is not unusual to have all three maneuver brigades and the aviation brigade working through different segments of the deep operations process. Each brigade's current phase sets up the next one's future actions.

	D–2	D–DAY	D+1	D+2	D+3
1st Bde	Decide	Set Conditions	Execute	—	—
2d Bde	—	Decide	Set Conditions	Execute	—
3d Bde	—	—	Decide	Set Conditions	Execute

Figure 8–5. The AASLT division battle rhythm

TYPES OF DEEP OPERATIONS

The AASLT division conducts two principal types of deep operations: raids and air assaults. While the division may conduct raids independently, air assaults often include raiding missions as subtasks in the overall operation.

Raids aim at destroying enemy forces. They envision ingress and egress from EAs, LZs, or objectives with no intention of leaving behind units on the ground. Most typically, the division employs attack aviation raids to destroy enemy forces in EAs.

The division may order an artillery raid using medium assault aviation assets to emplace a battery, fire a particular high-payoff mission, and then extract the battery. Finally, the division may execute rifle company raids or even infantry battalion raids to destroy especially critical targets, such as enemy CPs or logistic facilities. The AASLT division raids in company through brigade strength.

The AASLT division conducts operations to destroy enemy forces, secure key terrain, or both, that require insertion of a combined-arms force that expects to stay and fight. The AASLT division can conduct air assaults for three purposes:

1. To secure critical geographic choke points to assist friendly ground maneuver or to block enemy movements.

2. To destroy enemy forces located in and around the objective.

3. To establish an FOB for future raids and air assaults.

Raids

The AASLT division conducts raids cross-FLOT to destroy enemy forces. Raids also confuse and deceive the enemy by distracting his attention from a concurrent main effort.

Raids require detailed planning to increase chances for success. The division raids daily while in combat, often to establish conditions for air assaults.

Army Attack Helicopter Raids

Divisions and corps execute deep operations using a variety of forces and systems, including EW, long-range fires, Army aviation, and Air Force AI. Because of its speed, survivability, and destructive capability, AI paces day-to-day deep operations. But, because of the long planning times associated with USAF sorties, Army aviation offers a viable alternative or addition to AI.

Army attack helicopters strike deep during simultaneous operations to overwhelm enemy forces and to make the enemy react to simultaneous multiple attacks, causing him to break his tempo and hastening his defeat. In the AASLT division, Army attack helicopters independently raid to destroy enemy forces or as part of a larger operation to set the conditions for future operations. Attack helicopters may raid in brigade or battalion strength, typically under aviation brigade command.

The AASLT division controls division-level deep operations, but they require close coordination between all involved service components and all interested commands (corps or JTF through the lowest headquarters). This assures that deep operations plans support the overall concept and that different commands do not duplicate or impede each other. Corps aviation operations, for example, may aim at the same or similar deep EAs unless deconflicted.

The detailed planning, preparation, and coordination necessary for a successful attack aviation raid requires a well-defined task list at each level of command. This task breakdown reduces duplication of effort and prevents fratricide.

Finding enemy ADA elements and likely EA targets drives preparations for a deep aviation raid. The IPB identifies likely threat ADA positions, then collectors verify this template. The IPB also projects the likely target array in the chosen EAs, so the G3 and attacking commanders can adjust the plan as needed to accomplish the raid's objectives.

Before the G2 develops a collection plan and directs division collection activities, he must know the commander's PIR, which include a subset of the CCIR and ADA templates. Integrating information received by all collection assets, used with the IPB process, enables the division commander to decide when, where, and how to deliver combat power to the most decisive deep locations. Effective

coordination must occur within the elements of the division targeting cell, between division and corps targeting cells, as well as between division and subordinate commands' collection means and operations sections.

The IPB process provides likely hostile ADA targets for the division's suppression programs. The division ensures that DIVARTY, the aviation brigade, and division staff elements conduct SEAD planning for all cross-FLOT operations, but it deserves special attention in aviation raids. These missions often initiate attempts to penetrate enemy ADA umbrellas, and so may pay an extra penalty for leading the way if SEAD efforts fall short of expectations.

During a cross-FLOT raid SEAD occurs with redundant systems at various operational levels. Corps and USAF assets execute collateral SEAD against acquirable enemy AD systems in support of USAF operations. The corps may order division assets to join this effort.

Localized SEAD supports USAF air support, AH, and AASLT operations. Cross-FLOT operations depend on localized SEAD.

Suppression begins before aircraft arrive and continues as long as aircraft are in range of enemy ADA systems. Complementary SEAD operations continuously seek enemy AD systems and attack to destroy or track these systems as collectors locate them.

The division aviation brigade, supported by appropriately tasked artillery and USAF sorties, plans, prepares, and executes SEAD or JSEAD in support of its operations. The division commander and staff synchronize SEAD support for deep aviation operations.

The FSE in the main CP plays a critical role. It recommends priority of fires to support the aviation brigade and coordinates with adjacent and subordinate units to ensure all division suppression operations prove mutually supportive. It can then capitalize on enemy vulnerabilities.

The brigade FSE section, with the division FSE, uses airspace procedural control measures to create generic artillery SEAD plans. Firing units compute and store these plans in the lightweight tactical fire direction system (LTACFIRE) and disseminate them to all FSEs planning cross-FLOT operations. Units continually update SEAD plans as they locate new targets.

Choosing routes to avoid enemy ADA is still the best protection. The basic decisions on ingress and egress routes determine how much time and effort (in personnel, units, and munitions) the division plans to use in support of the operation. The G3 carefully considers all METT-T factors as he develops cross-FLOT aviation raids.

Cross-FLOT attack helicopter raids require using TTPs that combine intelligence, fire support, and maneuver at decisive points on the battlefield. Integrating and synchronizing BOS determine this high-payoff operation's success. When correctly done, these measures considerably reduce risks.

Division Responsibilities. The AASLT division plans and coordinates the following tasks for an attack helicopter raid:

- Receive a mission statement from corps and, through mission analysis, determine which brigade will conduct a mission.
- Establish liaison at the corps main CP, and, if the objective lies outside division boundaries, coordinate with corps for authorization and adjusted control measures.
- Issue an order to the aviation brigade.
- Coordinate SEAD through the division FSE and the corps FSE.
- Coordinate routes into the division or corps airspace control plan and the air component commander's (ACC's) ATO and/or the ACO as necessary.
- Coordinate passage points along the FLOT with the owning maneuver ground forces.
- Coordinate necessary CSS assets to support refueling and rearming requirements.

Aviation Brigade Responsibilities. The AASLT division's aviation brigade plans and coordinates the following tasks for an attack aviation raid:

- Identify air routes for the operation, and coordinate them with the division.
- Coordinate passage points and routes with the maneuver brigades involved.
- Issue an order to the attack battalion.

- Supervise the planning and mission-execution process.
- Identify enemy AD locations and provide target information to the brigade FSE for SEAD or JSEAD.
- Develop the SEAD program from targets received from the S2:
  - Incorporating lethal and nonlethal fires to suppress enemy ADA systems.
  - Incorporating jamming warnings and fire control systems associated with enemy ADA assets.
  - Coordinating other EW targets through the EW staff officer in the division main CP.

The ADAO coordinates as required with division staff elements. He works closely with the G3 air to confirm the route structure; with the division FSE to confirm SEAD or JSEAD programs; and with the division G2 cell to confirm and update the enemy situation over intended routes and objectives.

Attack Helicopter Battalion Responsibilities. The attack helicopter battalion plans and coordinates the following tasks for its raid:

- Select primary and alternate BPs.
- Plan routes from the RP, SP, or both to and/or from the BPs.
- Issue a battalion order.
- After completing the mission, provide a debrief through through brigade to the division G2. It is particularly important for the brigade to provide BDA and to note the enemy's size and activities.

Artillery Raids

The AASLT artillery raid features an aggressive, short-duration operation against an HPT. Likely candidates might involve enemy CPs, AD radars, ammunition and fuel dumps, or unprotected troop concentrations. The key consideration entails subjecting vulnerable enemy units and facilities to intense artillery fires throughout the depth of the battlefield.

The ability to rapidly displace artillery forward, accompanied by enough of the correct ammunition, allows the division commander to engage enemy targets with artillery out to his aviation's maximum range. In short, aircraft extend the range of howitzers.

Artillery raids require extensive training and crew drill to achieve the required split-second timing. The risks to the artillery and to medium-assault aircraft demand precision execution. The raid requires the same cross-FLOT planning process as an air assault, including a careful risk analysis and definite efforts to set conditions before launch.

Artillery raids work best if they avoid or suppress threat ADA, land unopposed, and leave before hostile forces react and make contact. Doing so minimizes opportunities for enemy counterfires.

Field artillery battalions normally plan and coordinate raids, which usually occur in battery strength. The battalion's responsibilities include overall planning for the raid, organizing and controlling the PZ, establishing abort criteria, and conducting the air mission brief (AMB).

The firing battery commander serves as overall mission commander and ground tactical commander. He—

- Presents the AMB.
- Organizes battery loads on the PZ.
- Employs security and friendly ADA elements.
- Conducts firing operations on the LZ.
- Calls for extraction when ready.
- Makes abort decisions.

The AMC serves as flight leader. He also presents the AMB to the pilots and coordinates and synchronizes all Army aviation assets.

Artillery raids employ up to a company of assault or medium assault aviation, depending on weight, range, and whether the aircraft transport howitzers by slingload or if they are internally loaded in medium assault aircraft. Attack aircraft may provide armed reconnaissance, route verification, and armed escort. MEDEVAC and EW aircraft often fly in support of these raids.

Other habitual attachments include MANPAD Stinger teams, pathfinders, and a squad of infantry for security. Precision navigation instruments key the battery's emplacement and fires. There should be observers available either aloft or on the ground

to adjust fires on chosen targets and to judge damage.

An AASLT artillery raid serves notice to the foe that his entire force lies exposed to indirect fires, regardless of traditional surface-to-surface range fans. However, these types of raids are high-risk, high-payoff operations. The division commander must judge the target to be worth the risk and effort.

Combined-Arms Raids

The combined-arms raid goes deep to destroy enemy forces and facilities vulnerable to ground attack. Possible targets include CPs, AD sites, logistic bases, or transportation choke points (bridges, tunnels, and rail intersections).

The combined-arms raid works especially well in circumstances requiring seizure of equipment samples, taking EPWs, or performing demolition, Just as the artillery raid uses aircraft to extend the howitzer's effective range, the combined-arms raid stretches the normal operating radius of ground maneuver forces throughout the depth of the battlefield.

The division usually conducts combined-arms raids at brigade level and below. For example, the brigade may conduct deep raids, using several company teams against widely dispersed targets, or against a complex of interrelated targets. It may conduct single or multiple-battalion raids against widely separated targets or a cluster of targets in the same small area.

The division may order battalion or company raids under brigade control. Combined-arms raids often proceed along with attack aviation and artillery raids.

The key difference between a combined-arms raid and an air assault is intent. Raid forces do not intend to hold terrain.

The AATF achieves maximum destruction on the target, then withdraws from the objective area once the mission is complete. The raiding force's plans include conversion into an actual air assault if enemy action or friendly opportunity compels such a sequel operation.

The raiding force uses the complete cross-FLOT operation process, including carefully establishing favorable conditions to carry out the mission. They follow through with a clean extraction rather than with the air assault's typical buildup of forces and supplies.

Figure 8-6 is a schematic of an AASLT brigade deep raid against a mechanized brigade deliberate attack. The brigade orchestrates three separate battalion raids. One destroys an enemy CP; one demolishes a bridge to block reinforcing or retreating enemy forces; the other, an attack aviation battalion, raids against an enemy reinforcing armored battalion in an engagement area. All disrupt the coherence of the enemy's defense and forces him to fight in several directions at once.

Combined-arms raids represent the most risky form of raid. Commanders and staffs must prudently weigh these operations in light of all METT-T factors and the status of the CCIR before committing forces on the ground across the FLOT. Although raids hope to extract the raiding troops from the objective, the division commander implicitly accepts the possibility of decisive ground engagement every time he commits forces to a combined-arms air assault.

Air Assault

Air assaults occur when the situation offers opportunities to go deep to defeat the enemy. They involve holding terrain, either for its intrinsic value in view of the overall campaign, defeating an enemy formation, or establishing an FOB for future deep missions. Air assault infantry enters the fray as a member of the combined-arms team and so enjoins the firepower and assistance of a host of weapons and forces.

When an AATF goes deep it brings massive firepower against the foe, holds its position, and sustains itself. This mission must include more planning, preparation, and coordination than an attack aviation raid because of the need to synchronize an increased number of units.

Air Assaults to Secure Terrain and/or Destroy Enemy Forces

The AASLT division conducts cross-FLOT air assaults to seize terrain and/or defeat or destroy enemy forces. The division considers all BOS as it works through the cross-FLOT operations process.

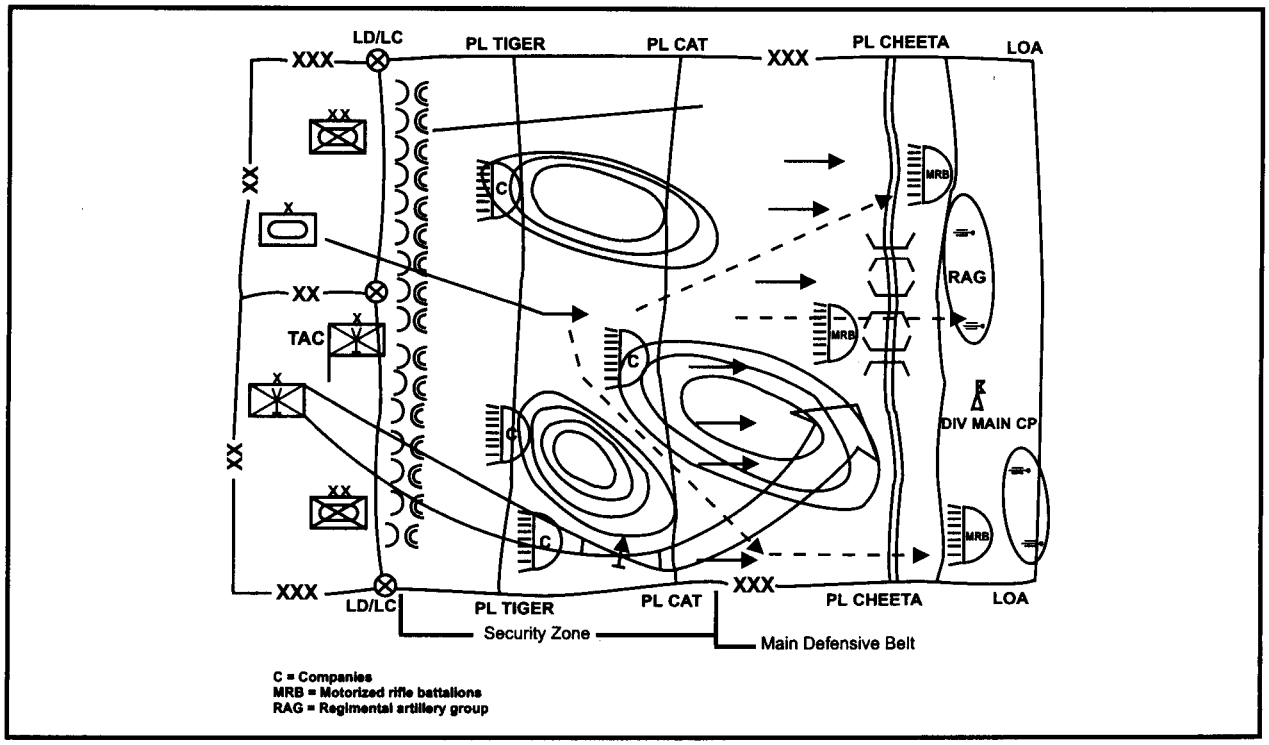


Figure 8–6. A combined-arms raid

Air assaults deposit relatively light forces behind enemy lines. Such forces lack rapid ground mobility but have the firepower to take and hold terrain.

Air assault commanders prefer to seize undefended or lightly held key terrain to compel a hasty and, hopefully, unsynchronized enemy counterattack. Air assault forces conduct direct assault of enemy forces at increased risk to landing forces.

The battlefield framework provides structure for BOS synchronization efforts. The division organizes for an air assault by conducting deep operations to set conditions, rear operations to ensure combat and sustainment free from enemy interference, and security operations to blind enemy intelligence collectors and prevent spoiling attacks.

Close operations begin with the air assault once conditions are set. The division may designate a small reserve to exploit success, although the next brigade preparing for an air assault normally fulfills this role.

The CCIR define the conditions the division must set to launch the attack. The G2 and subordinate S2s cooperate to complete an IPB template to support the CCIR. The PIR from this careful IPB confirm or deny the template based on thoughtful analysis of the products of a vigorous collection effort. Intelligence professionals look for enemy AD, fire support, CPs, mobile reserves, and defenders on potential LZs, all the while assessing how well fire supporters are setting conditions for the air assault. Battle damage assessment is critical.

The intelligence effort goes beyond merely confirming or denying an IPB template. Units gather and check other helpful information. Items of interest include—

- Enemy unconventional warfare (UW) units in friendly rear areas.
- Road and bridge conditions which affect friendly or enemy movements.
- Locations and directions of heavily guarded convoys and well-protected artillery installations for possible chemical or nuclear weapons.
- Locations of enemy supply installations.

Division collectors work throughout the AO. The LRSD, the air cavalry squadron, and EW units play especially large roles in this effort.

The division's LRSD usually receives missions from the division commander based on G2 recommendations. The LRSD, normally inserted aboard rotary-wing aircraft, then infiltrates to conduct long-term surveillance on NAIs, LZs, and AASLT objective aviation and maneuver brigades.

DIVARTY identifies LRSD hide locations as NFAs to make sure attack aviation battalions, fire supporters, and maneuver battalions do not inadvertently engage LRSTs. Brigade FSEs incorporate NFAs into fire support plans. Units also coordinate an LRSD linkup plan to link the LRSD with the AATF once brigades land near LRSD hide sites.

Often, the division's air cavalry conducts reconnaissance operations. It represents the unit of choice for reconnaissance missions. Its information requirements include determining—

- Locations and the identification of ADA and missiles in and around an objective.
- Types of enemy artillery units deployed inside of and within range of an objective.
- Locations, sizes, and strengths of mobile reserves.
- Movement of other infantry forces into the objective.
- Locations of engineers, obstacles, mine fields, and other countermobility in the area.
- Locations of supply and ammunition storage.
- Locations of communications nodes or networks.
- Possible LZs and/or PZs.
- The BDA throughout the AO.
- The viability of air routes within the AO.
- Weather conditions along air routes.
- Ground conditions (surface composition, dust, ground fog).
- Observation of NAIs and TAIs.

The G2, G3, and FSE coordinate a comprehensive EW plan and integrate it into intelligence collection and fire support efforts. To support the deep attack, the AASLT division requires jamming directed against enemy fire support nets.

The division also works with the corps or JTF headquarters and the USAF to use their EW assets for EW collection and SEAD. Finally, the MI battalion deploys C&J units to protect the division's C^3 electronics by finding and suppressing enemy EW capabilities.

When the AATF flies cross-FLOT, SEAD programs and counterfire plans target what intelligence finds. SEAD fires combine all available lethal and nonlethal means to degrade and destroy key portions of the enemy AD envelope. SEAD allows conditions to be set and facilitates the actual air assault.

Units should always plan deception operations that include SEAD, and on-call SEAD, to permit maximum flexibility in air route selection. Units must integrate SEAD into the ongoing counterfire fight, and employ complementary EW, USAF, Army aviation, and surface fires to compound the enemy's problems as he tries to react effectively.

When facing an enemy who has modem systems, units must be able to defeat its fire support systems. Fire support is the foe's best means of rapidly engaging an air assault. Attack helicopters, along with USAF AI, tube and rocket artillery, and EW systems, mass synchronized cross-FLOT fires to defeat these assets.

The combination of artillery and attack aviation creates a synergistic effect that does not occur when these assets fight separately. For example, during the attack aviation's ingress and egress of the target area, division artillery can focus fire support assets on SEAD. Division artillery must destroy reported known and suspected enemy AD systems; localized SEAD programs along air routes out to the limits of range; and SEAD, as part of a deception effort along false air routes.

Attack aviation assists fire supporters by observing counterbattery preparations and other BDA. United States AF and Army aviation can provide localized SEAD when necessary.

An effective countertire technique links the artillery's radars, the digital LTACFIRE system, and attack helicopters during cross-FLOT operations. This technique locates hostile firing units and immediately transmits accurate locations via LTACFIRE to the aviation brigade CP.

At the aviation brigade CP the FSE passes HPTs to the brigade S3, who coordinates for immediate attacks to destroy firing units. When attack aviation is not on-station, the division and the aviation

brigade plan attack aviation raids to strike selected EAs as soon as helicopters become available.

SEAD and counterfire programs demand responsive fire support. Since deep missions often fly into areas which forward artillery cannot range, attack aviation provides its own fire support.

A technique to support an air assault, depending on the exact situation, is to air assault a reinforcing artillery battery or battalion with infantry security into an LZ offset from the main effort's LZs. This element provides preparatory and opportunity fires into the objective area from its offset location. Once the AASLT force secures the objective, the offset artillery flies back behind the FLOT or into the brigade airhead.

While preparing for an air assault, priority of fires normally goes to the aviation brigade, with targeting priority to enemy AD systems, fire support systems, maneuver forces, and C^2 nodes. Reinforcing artillery locates to support SEAD and counterfires necessary to set the conditions in support of air assaults.

During the air assault itself, priority shifts to the brigade AATF. The DIVARTY establishes a Quick Fire net between the AATF and the reinforcing battalion to provide responsive fire support. The FSE maximizes the use of "push CAS" (USAF attack sorties on call), if available, to maintain the attack's momentum.

Close coordination between the AASLT division and the corps FSE prevents fratricide. The AASLT division establishes and disseminates FSCMs.

The FSE also coordinates who controls fires on the battlefield, particularly when an AATF goes deep into what was another brigade's zone or sector, or even the corps' zone or sector. All interested FSEs must filly understand and coordinate who controls and clears fires.

The maneuver scheme typically envisions landing as many maneuver forces as aviation can deliver as close to the objectives as possible. A massed simultaneous landing is normally ideal.

During planning, the AASLT unit, with the ALO, refines the ground plan and the landing plan to minimize the number of lifts needed to insert the AATF's ground elements. As defense of the airhead usually follows the landing, the AASLT force chooses LZs and objectives to ease the transition to the defense.

Deep operations set conditions for future close operations, and the AASLT division's main effort jumps swifty from deep to close operations at H-hour. Maneuver forces land, clear LZs, and secure objectives that accomplish the assigned mission.

Maneuver forces also secure the airhead line. Reinforcement and sustainment begins immediately, even in daylight, if operations have successfully reduced hostile ADA batteries.

The brigade usually employs all three infantry battalions and an OPCON attack aviation battalion to accomplish its maneuver tasks. The battalions, organized as combined-arms TFs, land on multiple LZs to establish a coherent perimeter after landing. The attack battalion flies outside the airhead in the brigade zone to engage enemy forces threatening AASLT infantry.

If AASLT forces land in contact (a hot LZ) with enemy forces, the brigade maneuvers on the ground to fix the enemy. If possible, they divert inbound aircraft to alternate LZs to envelop the enemy force and destroy it.

Forces en route by assault aviation possess a mobility advantage over enemy ground units. The AATF can translate this mobility edge into an effective maneuver advantage if it can divert following lifts to appropriate LZs. Staffs develop these "what if' branches to the basic landing plan to gain additional flexibility when going deep.

Allocating and task-organizing aviation to support the maneuver scheme represents a crucial division decision. The division assigns aircraft from all three organic assault battalions, reinforced when possible by corps aviation units under the AATF's senior assault aviator (normally the aviation brigade commander), to allow a maximum simultaneous lift. Sufficient medium assault, MEDEVAC, EW, and C^2 aircraft round out the aviation task force.

Attack aviation generally splits out with one inner ring battalion OPCON to the AATF brigade. The rest are under aviation brigade command to conduct outer ring engagements.

Maneuver capitalizes on the conditions set by fire support. The AATF integrates and synchronizes

each piece of the maneuver team (infantry, antiarmor companies, attack aviation, assault aviation) to deliver maximum impact at the chosen time and place.

A force so dependent on dominating the air cannot neglect enemy aviation. When the G2 develops the IPB, part of it includes enemy rotary- and fixed-wing air avenues of approach.

Air defense artillery units operate well forward to provide a cohesive umbrella of coverage, tied into the corps' HIMAD coverage. The ADA battalion supports priorities of protection.

During AASLT operations, priorities of protection go to the aviation brigade (attack, assault, logistics), engineers, corps and division artillery, C^2, CSS, and maneuver forces. Air defense artillery batteries habitually air assault both man-portable and vehicular weapons systems with the AATF to ensure unbroken coverage.

Once landings begin, the ADA priority may expand to provide selective convoy protection to logistic trains moving forward to link up with AATFs on the objectives. It may also be necessary to provide critical-point protection during route construction or to FA assets moving forward to support successive deep attacks. The ADADO recommends priority shifts as the fighting develops.

Mobility, countermobility, and survivability factors affect air assault. Division engineers support the operation in both setting conditions and in execution. While working to establish favorable conditions, engineer priorities normally go to the aviation brigade, then DIVARTY. Mission priorities revolve around survivability of aviation, artillery, PZs, and logistics.

When the AATF begins its attack, priority shifts. Light engineer teams breach obstacles and reduce enemy fortifications. Once the AASLT force takes the objective, engineers quickly shift to survivability tasks to prepare for expected enemy counterattack direct and indirect fires.

If necessary, engineers conduct mobility operations to support the reserve reinforcement plan and the CSS support plan. Finally, they assist the infantry in countermobility operations.

If a ground linkup establishes a resupply route, division engineers clear the routes. The ADE recommends the priority on route clearances as well as priority of effort and priority of support throughout the operation. These priorities shift as the battle progresses.

The ADE also develops the division situational obstacle plan. The division may receive employment authority for long- or short-duration mines from the corps.

The division uses short-duration FASCAM to affect targets projected to be in the minefield's area in the immediate future. Air-deliverable scatterable mines contribute to the deep battle and work well to shape EAs for attack aviation. Engineers use ground mine-laying systems to help establish a secure corridor along ground routes and to provide flank security.

Combat service support defines the physical limits for all operations. DISCOM task-organizes to provide DS to all assigned and attached units throughout the operation.

As the division sets conditions, the concept of support differs significantly from that used during the air assault. While preparing for the air assault, the DISCOM supports with the traditional MSB and/or FSB concept. The FSBs displace with their supported brigades and conduct logistic operations.

When supporting AASLT operations, CSS units operate from a forward logistics base to ensure continuous support for the attacking brigade. Depending on the size and/or the duration of the AASLT operation, units can expand the forward logistics base into a full-scale BSA as required.

The type and quantity of logistic support accompanying the AATF into the deep objective depends on the exact situation. But, the most critical factor involves the number of lift aircraft available.

The AATF commander must apportion his assault and medium assault aviation, dividing his resources between combat and sustainment needs. The AATF S4's analysis of required service support greatly affects this decision.

Once the AATF determines the aviation CSS slice, the FSB commander tailors the forward logistics element (FLE). The FLE is the first element of the FLB to deploy.

The FLE's organization varies by mission, but it generally provides medical, maintenance, and

supply capabilities. An FSB company commander commands the FLE (Figure 8-7).

Upon landing, the priority for aviation resupply goes, in order, to mission-critical supplies, MEDEVAC, preplanned Class V resupply, other preplanned resupply, and personnel replacements. As time and assets become available, DISCOM builds stockage levels. The FLE builds into the full FSB or larger unit depending on the mission.

Until the unit establishes the ground MSR, resupply arrives by air. Units plan and execute aerial resupply to units across the FLOT using the same cross-FLOT operation process as a raid or air assault, including SEAD and attack aviation.

Resupply should be in one lift. It generally goes in at night to minimize enemy ADA threat, although units can conduct daylight resupply based on METT-T and a thorough risk analysis.

Parachute airdrops from USAF aircraft also sustain the airhead. The division and the AATF plan for drops using the container delivery system, the low-altitude parachute extraction system (LAPES), and heavy drops of all classes of supply.

Bulk food and certain types of high-usage ammunition are candidates for this resupply method. The AATF may elect to try to bring in heavier engineer equipment by these means to create or upgrade roads and flight landing strips.

Eventually, preferably within 72 hours, a ground MSR links up with the airhead. The division establishes priority and controls ground movement along MSRs heading to the objective area. A typical priority for transportation support and MSR movement might be artillery unit displacements; then Classes V, III, and I supplies (including water); casualty evacuation from committed units, personnel and equipment replacements, and the build up of supply stockage levels.

Aviation, paradrop, and truck resupply rely as much as possible on preplanned, precontigured packages. DISCOM develops a series of preconfigured loads of Class I, IV, and V supplies to satisfy resupply requests, sling-load packaging, airdrop rigging, and truck loading. It expedites both planning and execution of resupply into the objective area.

Capability	Personnel	Equipment
Headquarters	6	Command post, communications
Limited maintenance	23	Communications electronics, armament, missile, automotive, engineer, aviation, Class IX supplies
Limited supply	15	Rapid refuel (ground/air), forklifts, mortuary affairs; Class I, II, IIIP, IV, V supplies
Limited medical	22	2 ground ambulances, 2 MEDEVAC aircraft, 1 medical treatment facility (MTF) with patient-holding capability, Class VIII supplies
Total	66	20 vehicles

NOTE: Class IIIP denotes Class III package.

Figure 8–7. Typical forward logistics element composition

The concept of support for the attacking AATF requires in-depth analysis and planning. Each unit plans resupply and evacuation procedures for all supplies and services, determining the connections from the forward logistics base to the individual soldier and return.

The infantryman is not a pack animal. His combat effectiveness directly relates to the weight of the load on his back. To reduce the soldier's load, commanders at every level must make the CSS system responsive and effective.

The division normally sends the ADC-O and jump CP to fly with the AATF into the AATF objective. The jump CP attempts to land in the objective area and take control of the close battle. However, METT-T determines whether it remains, returns to the TAC CP, or brings the TAC CP forward. The main and rear CPs displace once the AATF secures the objective, the TAC CP becomes fictional forward, and the tempo of action permits such movements.

Air Assaults to Establish FOBs

The AASLT division's ability to rapidly establish a deep FOB enables the division to project combat power even deeper before the enemy can react. While any AASLT airhead could be built into a FOB over time, attacking strictly to secure and build one emphasizes speed of establishment.

The true measure of a successful FOB relates to how quickly division units conduct decisive follow-on raids and air assaults throughout enemy rear areas. Establishing an FOB requires an air assault

by a full brigade, delivered by the massed assault aviation resources of the entire division.

The FOB supports subsequent deep operations in three ways:

1. Refueling and rearming aviation assets for future deep raids and air assaults.
2. Sustaining ground forces with all classes of supply and services.
3. Providing a secure area to establish PZs for transiting follow-on AASLT brigades.

When the division gives a brigade a mission to air assault to establish an FOB, the brigade staff conducts a thorough estimate of the situation and detailed mission analysis. The FOB concept works best by "hitting where they ain't." The key involves getting in quickly and relatively unmolested. (Figures 8-8 and 8-9 show how a FOB may be developed.)

If possible, the AASLT division prefers to insert its FOB 150 kilometers deep into the enemy's sector. Within hours of an initial landing in an uncontested FOB, the division can threaten air assaults and raids across a 300-kilometer-diameter circle in the hostile rear echelon.

The CCIR and PIR for an FOB seizure reflect the vital need to find a suitable location largely devoid of the enemy or local civilians. The division might consider restrictive terrain (including mountains, forests, and wastelands), provided a suitable number of LZs exist and the AATF can seize and/or build a ground MSR (preferably several) to the FOB. All other collection and analyses for an air assault proceed normally.

The LRSD has an especially important role in an FOB seizure. Its on-the-ground surveillance offers a final confirmation of soil consistency, LZ conditions, MSR status, and enemy activity. The division should weigh the potential for compromise and be careful not to focus too many LRSDs or other collectors in one place which would help the enemy pinpoint the FOB site.

During the air assault and consolidation, MI GSR, LLVI, and C&J teams support the battalions. This places the division's electronic intelligence collectors well forward where they can be combat multipliers for security and a continuation of intelligence-collection purposes.

Fire support roles correspond to those in any other air assault. Delaying or disrupting hostile maneuver units threatening the FOB is a definite priority. The FSE and ADE work together to determine possible FASCAM targets, always mindful of the location of future MSRs.

Because an FOB seizure aims to set conditions to eliminate opposition upon landing, fire support must be able to land a DS artillery battalion in the FOB early on. Counterbattery radars and this responsive artillery cooperate to keep enemy forces and gunners at a safe distance from the airhead.

An FOB's purpose (to support future deep operations) necessitates a maneuver scheme built around defending CSS assets, especially refuel/rearm aviation sites. The defense and sustainment effort works best when a ground attack can link up within 72 hours to establish a solid MSR.

The AASLT force speedily closes sufficient combat power into the FOB to destroy small enemy elements, and then to immediately transition to a 360-degree defense of the airhead. FARPs form the centerpiece of the FOB; the security force must protect them from both direct and indirect fires.

At times, the force must establish a consolidated rearm and refuel point to provide the massive quantities of fuel and ammunition the aviation brigade requires. The elements that make up this consolidated point generally come from the DISCOM, the aviation brigade, and a corps support battalion, group, or both.

The airhead line marks the limit of effective enemy-observed indirect fire, usually 15 kilometers. The security force positions AT weapons in depth around the perimeter.

Scout and attack helicopters screen out to 40 kilometers to provide early warning, to interdict enemy ground forces, and to assist with counterbattery fires. Division-controlled attack aviation assets range out to 93 kilometers to create an outer ring.

Early positioning of an artillery battalion into the FOB provides responsive fire support to the task force. Assault aircraft reposition forces, move scouts, and resupply ground forces as necessary.

DISCOM assumes control of the central circle once combat forces secure the FOB. Even so,

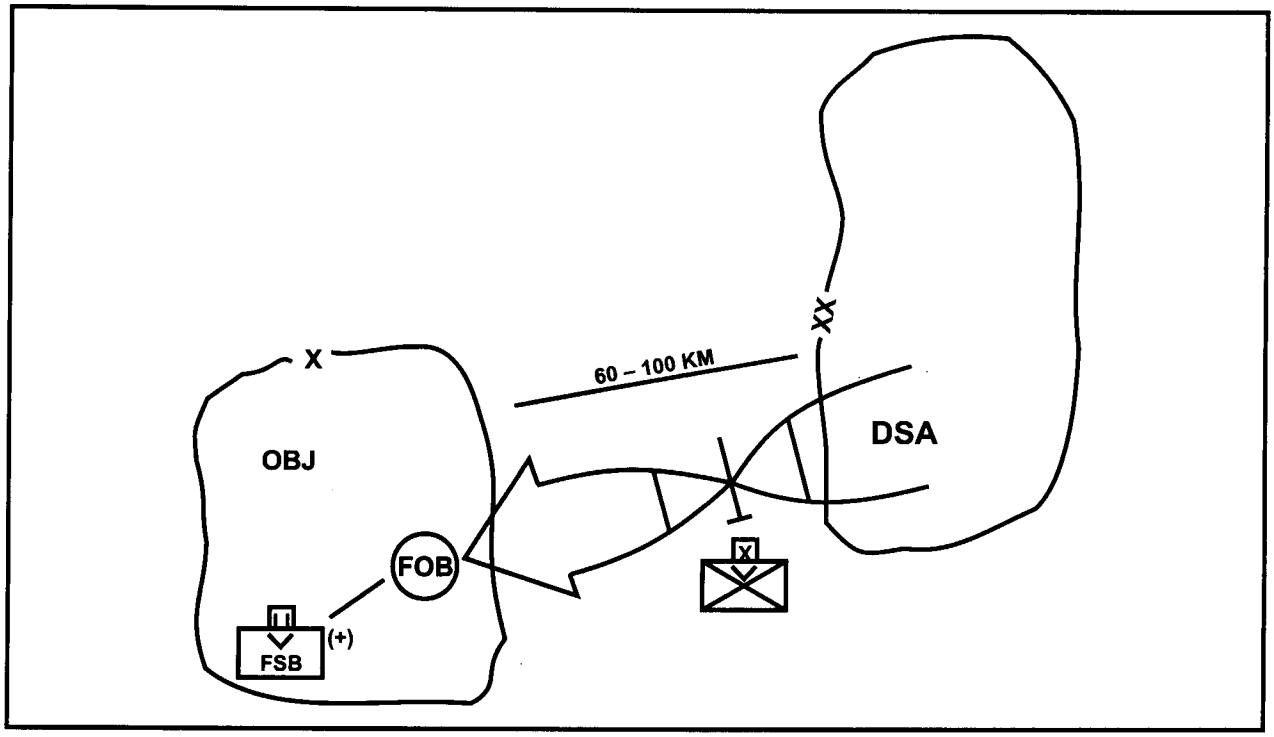


Figure 8–8. Phase I: FOB establishment

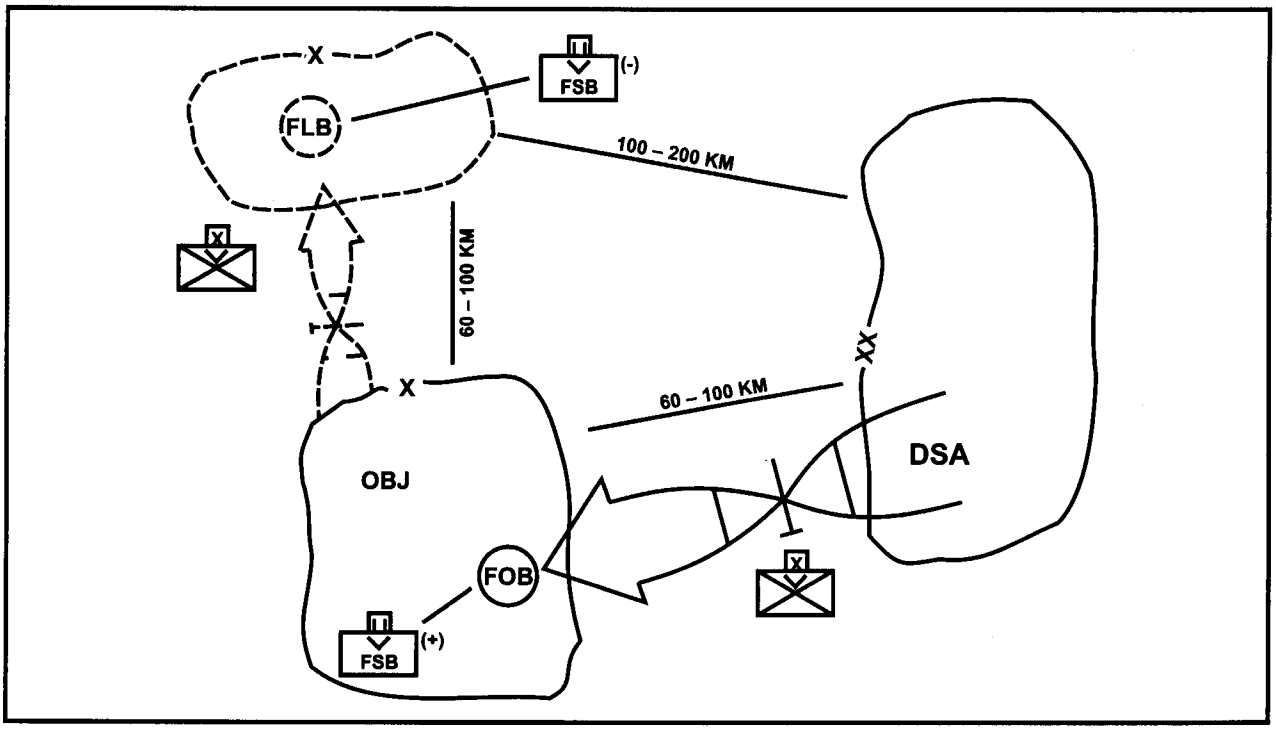


Figure 8–9. Phase II: FOB establishment

brigade forces coordinate for and use terrain in this DISCOM area.

The ground convoy attacks to link up with the FOB, establish an MSR, and resupply the FOB. It may follow an OPCON mechanized brigade, another division in the corps or JTF, or carry out its mission independently.

Choosing routes and planning the ground attack to clear an MSR cannot be afterthoughts. Without a ground linkup, the FOB will only have limited ability to sustain repeated deep operations. Planners must work with intelligence analysts and tire supporters to identify the best, least-defended route.

The ground convoy does not have the combat power to force a penetration through an enemy main defensive belt. If this looks like the only option, the division commander must reassess his entire FOB seizure plan and decide if he wishes to risk resupply by air alone.

The brigade habitually organizes for the FOB mission with three battalion TFs. an attack aviation battalion, an assault aviation TF, a ground attack and/or convoy TF, and brigade troops. Figure 8-10 illustrates a task organization for an FOB seizure.

Air defense air assaults into the FOB and moves with the ground convoy. As enemy airstrikes may be the first reaction to the FOB seizure, full integration of man-portable and vehicle systems offers immediate protection. This umbrella concentrates on preserving FARPs and aviation laagers at the heart of the FOB.

Engineers air assault, with priority to survivability of FARPs. A minimum of one bulldozer lands with the initial air movement to berm FARP fuel bags or blivets. Additional engineer equipment follows by medium assault, airdrop, or arrives with the ground convoy.

Engineers also assist infantry TFs as they dig in and erect obstacles. The infantry and their TF attachments do much of this work.

The engineers in the AATF, though limited in number, provide quality control and focus their efforts on critical fortifications and barriers. Planning and using scatterable mines serve to emplace mines rapidly to buy time for more deliberate countermobility work.

The FOB exists to provide light, tailored sustainment commensurate with the tactical need. Combat service support emphasizes—

- Repair forward by replacement.

	TF 1-327	TF 2-327	TF 3-327	TF Ground	Brigade Control
C^2	CP	CP	CP	Provisional CP 1/B/501 Sig	CP
Mvr	CO A CO B CO C CO D (-)	CO A CO B CO C CO D (-)	CO A CO B CO C CO D (-)	CO C/1-502 Inf 4, 5/D/1-327 Inf 4, 5/D/2-327 Inf 4, 5/D/3-327 Inf	3-101 Avn TF 5-101
FS	FSE USAF ACP Mortars	FSE USAF ACP Mortars	FSE USAF ACP Mortars	1-320 FA (105-mm (T)) 2-11 FA (155-mm (SP)) (R) FSE USAF ACP	2-320 FA (105-mm (T)) FSE USAF ACP
ADA	1/A/2-44 ADA (-)	2/A/2-44 ADA (-)	3/A/2-44 ADA (-)	4/A/2-44 ADA (-)	A/2-44 ADA (-)
M/S	1/1/A/326 Engr	2/1/A/326 Engr	3/1/A/326 Engr 887 LEC (-)	A/326 Engr (-) (Bulldozers)	
Intel	Scouts GSR Tm 1 LLVI Tm 1 C&J Tm 1	Scouts GSR Tm 2 LLVI Tm 2 C&J Tm 2	Scouts GSR Tm 3 LLVI Tm 3 C&J Tm 3	Trains/Tm A/311 MI	Tm A/311 MI (-)
CSS	Trains	Trains	Trains	426 FSB (-)	426 FLE
Other	1/1/A/6 PSYOP	2/1/A/6 PSYOP	3/1/A/6 PSYOP	1/1/101 MP 1/B/44 CA 1/63 Cml 1/101 MP (-)	1/A/6 PSYOP (-)

Figure 8–10. Brigade task organization for FOB seizure

- Forward stockpiles of Class I supplies (and water).
- Combat service supplier, high-capacity, Class III distribution at the FOB.
- Maximum use of all available distribution means (ground/air) to build the FOB to full capacity.

The division uses push CSS to create and run the FOB. A successful FOB CSS effort relies on—

- Timely and accurate reporting requirements from units concerning expenditures and requirements.
- Maximum use of all available transportation modes by the corps and division.
- Distributing as many supplies as possible forward of the FOB by aviation slingload.
- Backhauling sling hardware, containers, and dunnage.
- Fixing forward when possible.
- Stockpiling Class I supplies and water to sustain forces for at least 72 hours.

Brigade ground, aviation, and USAF airlift project sustainment as far forward as possible. DISCOM prepackages supplies in quantities readily usable by individual soldiers and small units. Examples would be rations by the case, water by the can, prepackaged Class IV supplies, 5-gallon fuel or oil cans, 55-gallon fuel or oil drums, ammunition by the case, or missiles by the round.

Once the division gets the MSR open, distributing supplies from the corps and the division rear areas to the FOB comes primarily by ground transport on a throughput basis. As AATFs launch out on subsequent air assaults, Class I and water, Class III, and Class V supplies are throughput directly to forward logistic bases, generally by Army aviation slingloading techniques.

Command and control of the AASLT portion of an FOB seizure proceeds as in Chapter 2. Distinctive measures for an FOB seizure relate to command of the ground attack convoy and command of the DISCOM CSS FLB inside the FOB.

Depending on METT-T considerations, either the division or the brigade forming the AATF takes charge of the ground attack. If significant enemy resistance seems likely, the ground attack should involve a brigade (an OPCON armored force, for example). The division would then assume control of the attack until the linkup scheme goes into effect, usually at a phase line within direct-fire range of chosen linkup points.

Should the AATF find or make a gap in enemy forces, it may also control the ground attack from start to linkup. This would be a less likely case, but preferable from the brigade perspective. In this case, the brigade designs its own linkup plan.

Command arrangements within the FOB also deserve attention. Before and during the air assault, the brigade TF commander positions all elements within the FOB.

A detailed LZ plan and early integration of advance party personnel from follow-on CSS elements reduces confusion. The brigade manages all terrain, including that in the CSS arena, until DISCOM assumes control of its planned central FOB CSS area.

When the brigade secures the FOB, DISCOM assumes responsibility for running CSS facilities. Inside the center of the FOB is the FLB where DISCOM allocates terrain and work areas, directs local security, and operates logistics facilities.

DISCOM coordinates its security scheme with the maneuver brigade and remains responsible for the FOB's external security. This gets the maneuver commander out of the resupply business and allows trained sustainers to carry out their tasks.

Normally, the logistics commander is the appropriate FSB commander. However, there are instances when the DISCOM TAC CP, under the DISCOM commander or executive officer, maybe in charge.

The sequence for a FOB seizure resembles other cross-FLOT missions until execution. The brigade begins operations once the division sets the conditions.

Immediately before the FLOT penetration, air strikes and artillery engage known and suspected enemy ADA targets. With SEAD, the attack battalion, accompanied by EW helicopters on jamming missions, launches toward the FOB.

Air Force CAS and jamming, if allocated, may assist the attack battalion as it transits its flight route. During SEAD, the AATF waits in PZ posture. The ground convoy stands by to depart its assembly area.

The attack aviation battalion conducts an armed reconnaissance along the flight route, over the LZs, and across the objective area. The attack aviation battalion attacks known or revealed enemy positions, with priority to ADA, artillery, and mobile reserves.

If the objective area still looks favorable for landing, the air assault launches. Based on the time of flight, the AATF lifts off to ensure the first aircraft of the first lift lands in the objective area at H-hour. This begins the assault to seize and establish the FOB.

To maintain coverage and security during the air assault, attack aviation will most probably need some fuel resupply. The attack battalion immediately sets up its own FARP, typically by slingloading in a fuel blivet on lift aircraft. If the attack helicopter fuel requirement exceeds this capacity, the AATF might allocate some medium assault aircraft to sling in a larger temporary FARP.

By H+l, units confirm the RP location and complete linkup with the LRSD. Not later than H+6, all AATF units (minus the ground attack element) close at the FOB. In addition, each battalion TF secures its initial assault objectives to establish an airhead line, after which the ground attack force crosses its LD. Bulk fuel begins to arrive by helicopter.

By H+6, DISCOM activates the forward area refueling equipment (FARE) and fuel system supply point (FSSP) and assumes command of the CSS core. The ground column links up as soon as possible, usually within 24 hours, but not later than 72 hours after the first landings.

GLOSSARY

AA	assembly area
A^2C^2	Army airspace command and control
AASLT	air assault
AATF	air assault task force
AATFC	air assault task force commander
AAVN	Army aviation
AAWS-M	antiarmor weapons system-medium
ABC	air battle captain
ABMOC	air battle management operations center
AC	attack cargo
ACA	airspace control authority
ACC	air component commander
ACE	analysis and control element
ACO	airspace control order
ACP	air control points; assault command post
ACR	armored cavalry regiment
act	action
AD	air defense
ADA	air defense artillery
ADADO	assistant division air defense officer
ADAO	assistant division aviation officer
ADC	area damage control
ADC-O	assistant division commander for operations
ADC-S	assistant division commander for support
ADE	assistant division engineer
admin	administrative
ADO	air defense officer
ADSO	assistant division signal officer
AF	Air Force
AFM	Air Force Manual
AFP	Air Force Publication
AFSCOORD	assistant fire support coordinator
AFSO	aerial fire support observer
AG	adjutant general
AGM	attack guidance matrix
AGOS	Air-Ground Operations School
AH	attack helicopter
AHB	attack helicopter battalion
AI	air interdiction
aja	adjacent
ALO	air liaison officer
ALOC	air line of communications
alt	alternate
AMB/amb	air mission brief; ambulance
AMC	air mission command
AMLS	airspace management liaison section
AMT	air movement table
ANGLICO	air and naval gunfire liaison company
AO	area of operations
AOR	area of responsibility
APERS	antipersonnel
APR	April
AR	Army regulation
armd	armored
arty	artillery
ASCC	Air Standardization Coordinating Committee
aslt	assault
ASOC	air support operations center
ASPS	all source production system
AT	antitank
ATACMS	Army tactical missile system
ATC	air traffic control
atchd	attached
ATIZ	artillery target intelligence zone
atk	attack
ATO	air tasking order
ATS	air traffic service
ATTN	attention
AVIM	aviation intermediate maintenance
avn	aviation
BAE	brigade aviation element
BCC	battlefield circulation control
BCE	battlefield coordination element
BCOC	base cluster operations center
BDA	battle damage assessment
bde	brigade
BDOC	base defense operations center
BDZ	base defense zone
BFV	Bradley fighting vehicle
BHL	battle handover line
bn	battalion

BOS battlefield operating system
BP battle position
BSA brigade support area
btl battle
btry battery

C_2 cargo
C^2 command and control
C^3 command, control, and communications
CA civil affairs; combined arms
C&E communications and electronics
C&J collection and jamming
CAC Combined Arms Center
CAN combat aviation net
CAS close air support
cav cavalry
cbt combat
CBU cluster bomb units
CCIR commander's critical information requirements
CCP circulation control point
cdr commander
CDS container delivery system
CEOI communications electronic operating instructions
CFA covering force area
CFFZ call-for-fire zone
CFL coordinated fire line
CFZ critical friendly zone
CG commanding general
CH cargo helicopter
CHS combat health support (replaces health services support (HSS))
CI civilian internee; counterintelligence
CID Criminal Investigation Division
CINC commander in chief
cmd command
cml chemical
CNR combat net radio
co company
COA course of action
Com chief of staff
coll collection
COLT combat observation/lasing team
COMINT communications intelligence
CONPLAN contingency plan
coord coordinate
COSCOM corps support command
CP command post
CPX command post exercise
CRC control and reporting center
Cs combat support
CSE combat support equipment
CSG corps support group
CSR controlled supply rate
Css combat service support
ctr center

(D) draft
DA Department of the Army
D^3A decide, detect and track, deliver, and assess
decn decision
decep deception
decon decontamination
DF disposition form
DFAC dining facility
DFSCOORD deputy fire support coordinator
DISCOM division support command
div division
DIVARTY division artillery
DLIC detachment left in contact
DMCC division movement control center
DMMC division materiel management center
DMOC division medical operations center
DNVT digital network voice telephone
DP decision point
DPICM dual-purpose, improved, conventional munitions
DRAGON (a weapons system)
DS direct support
DSA division support area
DST division support template
DTG date-time group
DTO division transportation officer
DZ drop zone

EA electronic attack; engagement area
EAC echelons above corps
ECB echelons corps and below
ECCM electronic counter-countermeasures
ECM electronic countermeasures
ECOA enemy course of action

EEFI	essential elements of friendly information
EH	electronic helicopter
ELINT	electronic intelligence
ELSEC	electronic security
engr	engineer
EOD	explosive ordnance disposal
EP	electronic protection
EPB	electronic preparation of the battlefield
EPW	enemy prisoner of war
equip	equipment
ES	electronic warfare support
EW	electronic warfare
EWL	engineer work line
EWO	electronic warfare officer
FA	field artillery
FAA	forward assembly area
FAAD	forward area air defense
FAIO	field artillery intelligence officer
FARE	forward area refueling equipment
FARP	forward arming and refueling point
FASCAM	family of scatterable mines
FAX	facsimile
FCM	fire control measures
FDC	fire direction center
FEBA	forward edge of the battle area
FFA	free fire area
FFIR	friendly forces information requirements
FIST	fire support team
FLB	forward logistics base
FLE	forward logistics element
FLOT	forward line of own troops
fm	from
FM	field manual; frequency modulated
FNS	foreign national support
FOB	forward operations base
FPF	final protection fires
FRAGO	fragmentary order
FS	fire support
FSB	forward support battalion
FSCL	fire support coordination line
FSCM	fire support coordination measure
FSCOORD	fire support coordinator
FSE	fire support element
FSO	fire support officer
FSSP	fuel system supply point
fwd	forward
G1	assistant chief of staff, G1 (personnel)
G2	assistant chief of staff, G2 (intelligence)
G3	assistant chief of staff, G3 (operations and plans)
G4	assistant chief of staff, G4 (logistics)
G5	assistant chief of staff, G5 (civil affairs)
gp	group
GPS	global positioning system
GS	general support
GS-R	general support-reinforcing
GSR	ground surveillance radar
GTC	ground tactical commander
HE	high explosive
hel	helicopter
HHB	headquarters and headquarters battery
HHC	headquarters and headquarters company
HHSC	headquarters and headquarters support company
HIDACZ	high-density airspace control zone
HIMAD	high- to medium-altitude air defense
HMMWV	high-mobility, multipurpose, wheeled vehicle
HN	host nation
how (T)	howitzer (towed)
HPT	high-payoff target
HPTL	high-payoff target list
HQ	headquarters
HUMINT	human intelligence
HVT	high-value target
I&S	intelligence and surveillance
ICM	improved conventional munitions
ID	identification
ID (L)	infantry division (light)
IEW	intelligence and electronic warfare

IEWSE	intelligence and electronic warfare support element
IMINT	imagery intelligence
inf	infantry
info	information
intel	intelligence
IP	initial point
IPB	intelligence preparation of the battlefield
IPW	interrogation of prisoners of war
IR	information requirements
ISB	intermediate staging base
JAAT	joint air attack team
JFACC	joint force air component commander; joint force air coordination center
JOC	joint operations center
JP	joint publication
JSEAD	joint suppression of enemy air defense
JSTARS	joint surveillance, target attack radar system
JTF	joint task force
km	kilometer
KS	Kansas
L	light
laager	a camp with a defensive barrier
LAB	logistics assault base
LAPES	low-altitude parachute extraction system
LBE	load-bearing equipment
LC	line of contact
LD	line of departure
LEC	law enforcement command
LLTR	low-level transit route
LLVI	low-level voice intercept
LO	liaison officer
LOA	logistics operations area
LOB	lines of bearing
LOC	lines of communication
LOGPAC	logistics package
LOGSEC	logistics security
LOS	line of sight; lines of supply
LP	listening post
LRS	long-range surveillance
LRSD	long-range surveillance detachment
LRST	long-range surveillance team
LT	light
LTACFIRE	lightweight tactical fire direction system
LZ	landing zone
M	mechanized
maint	maintenance
MANPAD	man-portable air defense
MASH	mobile army surgical hospital
MBA	main battle area
MCO	movement control officer
MCOO	modified combined obstacle overlay
MCS	maneuver control system
mdm	medium
mech	mechanized
med	medical
MEDEVAC	medical evacuation
METT-T	mission, enemy, terrain, troops, and time available
MI	military intelligence
MIJI	meaconing, intrusion, jamming, and interference
MLRS	multiple-launch rocket system
mm	millimeter
MMC	materiel management center
MOPP	mission-oriented protective posture
mort	mortar
MOS	military occupational specialty
MOUT	military operations on urbanized terrain
MP	military police
mph	miles per hour
MRB	motorized rifle battalion
MRR	minimum-risk route; motorized rifle regiment
M/S	mobility/survivability
MSB	main support battalion
MSC	major subordinate command
MSE	mobile subscriber equipment
MSR	main supply route
MTF	medical treatment facility
mvr	maneuver
N/A	not applicable
NAI	named area of interest
NALE	naval aviation liaison element
NATO	North Atlantic Treaty Organization

nav	navigation
NBC	nuclear, biological, and chemical
NCA	National Command Authority
NCO	noncommissioned officer
NCS	net control station
NEO	noncombatant evacuation operation
NET	new equipment training
NFA	no fire area
NGF	naval gun fire
NLT	not later than
no.	number
NOE	nap-of-earth
NVD	night vision device
obj	objective
OCOKA	observation and fields of fire, cover and concealment, obstacles, key terrain, avenues of approach
OFA	obstacle-free area
OH	observation helicopter
OIC	officer in charge
O/O	on order
OOTW	operations other than war
OP	observation post; operation(s)
OPCON	operational control
OPLAN	operation plan
OPORD	operation order
OPSEC	operations security
OPTEMPO	operational tempo
ORA	obstacle-restricted area
PIR	priority intelligence requirement
PIREP	pilot report
PL	phase line
plt	platoon
PM	provost marshal
POL	petroleum, oils, and lubricants
pos	position
PP	passage point
preps	prepares
PSYOP	psychological operations
pt(s)	point(s)
PZ	pick-up zone
Quick Fire	(radio net established by HQ to receive priority fires)
Quick Fix	(tactical heliborne communications intercept, direction finding, ECM system)
R	reinforcing; reserve
RAG	regimental artillery group
R&S	reconnaissance and security
RAA	rear assembly area
RAP	rocket-assisted projectile
RECCE	(reconnaissance aircraft mission (USAF))
recon	reconnaissance
REMBASS	remotely monitored battlefield sensor system
res	reserve
RFA	restrictive fire area
RFL	restrictive fire line
RISTA	reconnaissance, intelligence, surveillance, and target acquisition
ROE	rules of engagement
ROZ	restricted operations zone
RP	release point
RPV	remotely piloted vehicle
RSTA	reconnaissance, surveillance, and target acquisition
rt	route
(s)	secret
S1	adjutant
S2	intelligence officer
S3	operations and training officer
S4	supply officer
S5	civil affairs officer
SAAFR	standard-use Army aircraft flight route
SEAD	suppression of enemy air defenses
sec	section
SICPS	standardized integrated command post system
sig	signal
SIGINT	signal intelligence
SITREP	situation report
SJA	staff judge advocate
smk	smoke
so	signal officer; signal operations
SOCCE	special operations command and control elements
SOF	special operations forces
SOI	signal operation instructions

SOP	standing operating procedure
SOR	specific orders and requests
SP	self-propelled, start point
SPOTREP	spot report
spt	support
sqd	squad
sqdn	squadron
SR	supply route
STATREP	status report
STON	short ton
SUPPT	supply point
T	towed; ton
TA	transmission analysis
TAA	tactical assembly area
tac	tactical
TACAIR	tactical air
TACC	tactical air control center
TACFIRE	tactical tire direction system
TACON	tactical control
TACP	tactical air control party
TACSAT	tactical satellite
TAD	target acquisition detachment
TAF	tactical air force
TAI	target area of interest
TALO	tactical airlift liaison officer
TAR	tactical air reconnaissance
TCF	tactical combat force
TCP	traffic control point
TDA	target damage assessment
TE	threat evaluation
TF	task force
tgt	target
THREATCON	threat condition
TI	theat integration
TLP	troop-leading procedure
tm	team
tn	train
TOC	tactical operations center
TOE	table of organization and equipment
topo	topography
TOT	time on target
TOW	tube-launched, optically tracked, wire-guided, heavy antitank missile system
TRADOC	US Army Training and Doctrine Command
trk	truck
TRP	target reference point
TSOP	tactical standing operating procedure
TSS	target selection standard
TTP	tactics, techniques, and procedures
TVA	target-value analysis
(u)	unclassified
UAV	unmanned aerial vehicle
UBL	unit basic load
UH	utility helicopter
UN	United Nations
US/U.S.	United States
USA	United States Army
USAF	United States Air Force
USMC	United States Marine Corps
USN	United States Navy
UW	unconventional warfare
V/S	Vulcan/Stinger
W/	with
w	wheeled
WFZ	weapons-free zone
WCS	weapons control status
WO	warning order
WWI	World War I
WWII	World War H
WX	weather
XO	executive officer

REFERENCES

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Acts:

Foreign Assistance Act of 1961

Field Manuals:

FM 6-20-1	*Tactics, Techniques, and Procedures for the Field Artillery Cannon Battalion*
FM 6-20-10	*Tactics, Techniques, and Procedures for the Targeting Process*
FM 6-20-30	*Tactics, Techniques, and Procedures for Fire Support for Corps and Division Operations*
FM 7-8	*Infantry Rifle Platoon and Squad*
FM 7-30	*Infantry, Airborne, and Air Assault Brigade Operations*
FM 17-18	*Light Armored Operations*
FM 21-18	*Foot Marches*
(S) FM 34-1	*Intelligence and Electronic Warfare Operations*
FM 34-8	*Combat Commander's Handbook on Intelligence*
FM 34-40	*Electronic Warfare Operations (U)*
FM 34-130	*Intelligence Preparation of the Battlefield*
FM 55-2	*Division Transportation Operations*
FM 55-10	*Movement Control in a Theater of Operations*
FM 63-2-1	*Division Support Command, Light Infantry, Airborne, and Air Assault Divisions*
FM 71-100	*Division Operations*
FM 71-100-2	*Infantry Division Operations*
FM 71-100-3	*Air Assault Division Operations*
FM 90-2	*Battlefield Deception*
FM 90-3	*Desert Operations*
FM 90-4	*Air Assault Operations*
FM 90-5	*Jungle Operations*
FM 90-10	*Military Operations on Urbanized Terrain (MOUT)*
FM 90-10-1	*An Infantryman's Guide to Urban Combat*
FM 90-11	*Winter Operations*
FM 90-13	*River Crossing Operations*
FM 100-1	*The Army*

FM 100-5	*Operations*
FM 100-103	*Army Airspace Command and Control in a Combat Zone*
FM 101-5 (D)	*Command and Control for Commanders and Staff*

DOCUMENTS NEEDED

These documents must be available to the intended users of this publication.

Army Regulations:

AR 600-20	*Army Command Policy*

Forms:

DA Form 2028	*Recommended Changes to Publications and Blank Forms*

READINGS RECOMMENDED

These readings contain relevant supplemental information.

Air Force Manuals and Publications:

AFM 2-50	*USA/USAF Doctrine for Joint Airborne and Tactical Airlift Operations*
AFP 3-20	*Military Operations in Low Intensity Conflict*

Army Field Manuals:

FM 1-100	*Doctrinal Principals for Army Aviation in Combat Operations*
FM 1-103	*Airspace Management and Army Air Traffic in a Combat Zone*
FM 1-116	*Tactics, Techniques, and Procedures for the Air Cavalry/Reconnaissance Troop*
FM 3-3	*Chemical and Biological Contamination Avoidance*
FM 3-4	*NBC Protection*
FM 3-5	*NBC Decontamination*
FM 3-7	*NBC Handbook*
FM 3-11	*Flame Field Expedients*
FM 3-13	*Riot Control Agents and Herbicides*
FM 3-50	*Smoke Operations*
FM 3-50-1	*Smoke Unit Operations*
FM 3-100	*NBC Defense, Chemical Warfare, Smoke, and Flame Operations*
FM 5-7-30	*Brigade Engineer and Engineer Company Operations*
FM 5-34	*Engineer Field Data*
FM 5-36	*Route Reconnaissance and Classification*
FM 5-71-2	*Task Force Engineer and Engineer Company Operations*

FM 5-71-100	*Division Engineer Operations*
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FM 5-101	*Mobility*
FM 5-102	*Countermobility*
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FM 5-250	*Explosives and Demolitions*
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FM 6-60	*Multiple-Launch Rocket System Operations*
FM 6-121	*Tactics, Techniques, and Procedures for Field Artillery Target Acquisition*
FM 7-10	*The Infantry Rifle Company*
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FM 7-90	*Tactical Employment of Mortars*
FM 7-91	*Tactical Employment of Antiarmor Platoons, Companies, and Battalions*
FM 7-92	*The Infantry Reconnaissance Platoon and Squad*
FM 7-93	*Long Range Surveillance Unit Operations*
FM 7-98	*Operations in a Low-Intensity Conflict*
FM 8-10	*Health Service Support in a Theater of Operations*
FM 8-10-1	*The Medical Company-Tactics, Techniques, and Procedures*
FM 8-10-3	*Division Medical Operations Center*
FM 8-10-4	*Medical Platoon Leaders' Handbook—Tactics, Techniques, and Procedures*
FM 8-10-5	*Brigade and Division Surgeons' Handbook, Tactics, Techniques, and Procedures*
FM 8-10-6	*Medical Evacuation in a Theater of Operations*
FM 8-10-7	*Health Service Support in an NBC Environment—Tactics, Techniques, and Procedures*
FM 8-10-9	*Combat Health Logistics in a Theater of Operations*
FM 8-15	*Medical Support in Divisions, Separate Brigades, and the Armored Cavahy Regiment*
FM 8-42	*Medical Operations in Low-Intensity Conflict*

FM 8-55	*Planning for Health Service Support*
FM 10-63-1	*Graves Registration Handbook*
FM 11-38	*MSE System Management and Control*
FM 11-41	*Signal Support: Echelons Corps and Below (ECB)*
FM 11-54	*Satellite Operations (Multichannel)*
FM 11-58	*Tactical Data Systems and Interfaces*
FM 11-71	*Network Management*
FM 11-73	*Information Security*
FM 11-75	*Battlefield Information* Services
FM 12-6	*Personnel Doctrine*
FM 12-50	*U.S. Army Bands*
FM 14-7	*Finance Operations*
FM 16-1	*Religious Support Doctrine*
FM 17-95	*Cavalry Operations*
FM 17-95-30	*Light Division Cavalry Squadron*
FM 19-1	*Military Police Support for the AirLand Battle*
FM 19-10	*Military Police Law and Order Operations*
FM 19-15	*Civil Disturbances*
FM 19-40	*Enemy Prisoners of War, Civilian Internees, and Detained Persons*
FM 20-12	*Amphibious Embarkation*
FM 20-32	*Mine/Countermine Operations*
FM 21-10	*Field Hygiene and Sanitation*
FM 21-10-1	*Unit Field Sanitation Team*
FM 21-11	*First Aid for Soldiers*
FM 22-9	*Soldier Performance in Continuous Operations*
FM 22-100	*Military Leadership*
FM 22-103	*Leadership and Command at Senior Levels*
FM 24-1	*Signal Support in the AirLand Battle*
FM 24-10	*Signal Operations Doctrine*
FM 26-2	*Management of Stress in Army Operations*
FM 27-1	*Legal Guide for Commanders*
FM 31-12	*Army Forces in Amphibious Operations*
FM 31-70	*Basic Cold Weather Manual*
FM 31-71	*Northern Operations*

FM 33-1	*Psychological Operations*
FM 34-2	*Collection Management*
FM 34-3	*Intelligence Analysis*
FM 34-5	*Intelligence Collection Operations*
FM 34-10	*Division Intelligence and Electronic Warfare Operations*
FM 41-10	*Civil Affairs Operations*
FM 44-3	*Air Defense Artillery Employment, Chaparral/Vulcan/Stinger*
FM 44-100	*US Army Air Defense Operations*
FM 55-9	*Unit Air Movement Planning*
FM 63-2	*Division Support Command, Armored, Infantry, and Mechanized Infantry Division*
FM 63-6	*Combat Service Support in Low-Intensity Conflict*
FM 63-20	*Forward Support Battalion*
FM 63-21	*Main Support Battalion*
FM 90-6	*Mountain Operations*
FM 90-7	*Combined Arms Obstacle Integration*
FM 90-8	*Counterguerrilla Operations*
FM 90-13-1	*Combined Arms Breaching Operations*
FM 90-14	*Rear Battle*
FM 90-15	*Multiservice Procedures for Joint Suppression of the Enemy Air Defenses*
FM 90-26	*Airborne Operations*
FM 90-29	*Noncombatant Evacuation Operations*
FM 100-9	*Reconstitution*
FM 100-10	*Combat Service Support*
FM 100-15	*Corps Operations*
FM 100-17	*Mobilization, Deployment, Redeployment, Demobilization*
FM 100-19	*Domestic Support Operations*
FM 100-20	*Operations Other Than War*
FM 100-23	*Peace Operations*
FM 100-23-3	*MultiService Procedures for Foreign Humanitarian Assistance Operations*
FM 100-25	*Army Special Operations Forces*
FM 100-26	*The Army Air-Ground Operations System*
FM 100-27	*USA/USAF Doctrine for Joint Airborne and Tactical Airlift Operations (AFM 2-50)*
FM 100-37	*Combatting Terrorism*

FM 101-5-1	*Operational Terms and Symbols*
FM 101-10-1/1	*Staff Officer's Field Manual Organizational, Technical, and Logistical Data (Volume 1)*
FM 101-10-1/2	*Staff Officer's Field Manual Organizational, Technical, and Logistical Data Planning Factors (Volume 2)*
FM 701-58	*Planning Logistics Support for Military Operations*

Joint Publications:

JP *3.02*	*Joint Doctrine for Amphibious Operations*
JP *3.07*	*Doctrine for Joint Operations Other Than War*
JP *3-07.2*	*Joint Tactics, Techniques, and Procedures for Antiterrorism*
JP *3.07.3*	*Joint Tactics, Techniques, and Procedures for Peace Operations*

OTHER DOCUMENTS

United States Codes:

Posse Comitatus Act, 18 United States Code 1385

Title X