

## 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

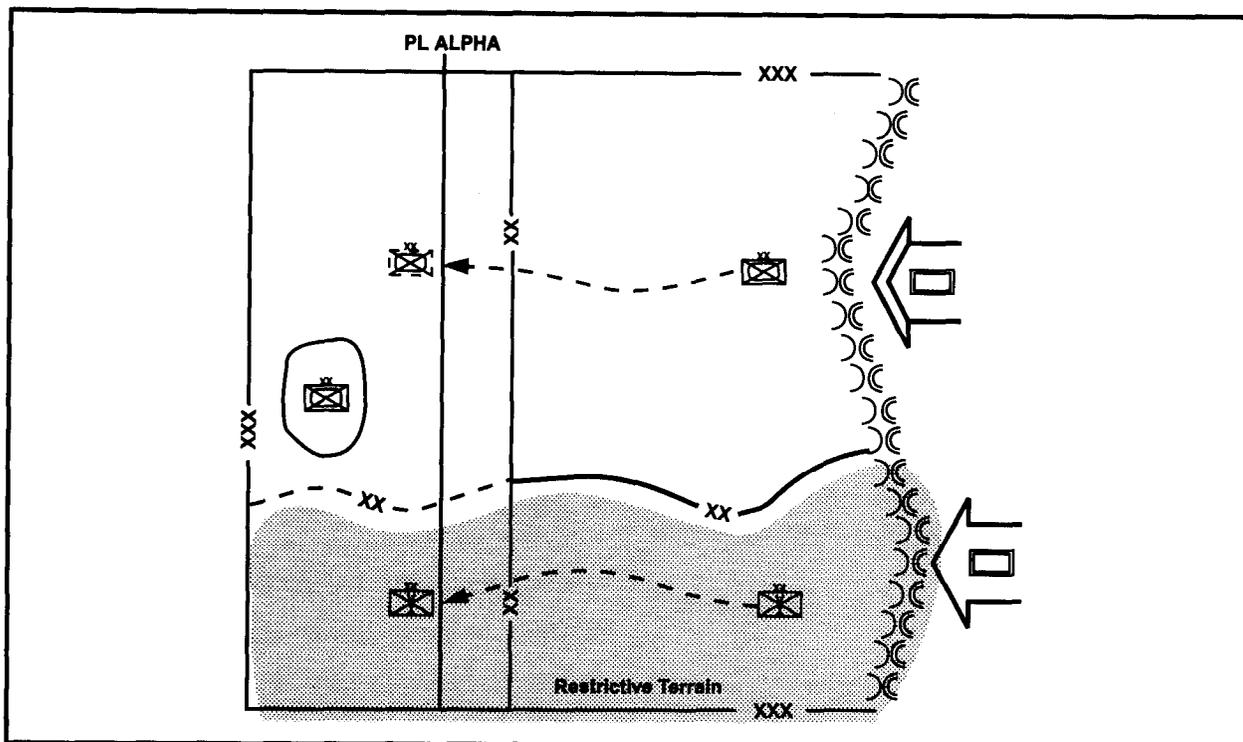
The AASLT division may have to disengage from an enemy force by conducting retrograde operations. Units conduct retrograde operations to-

- 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

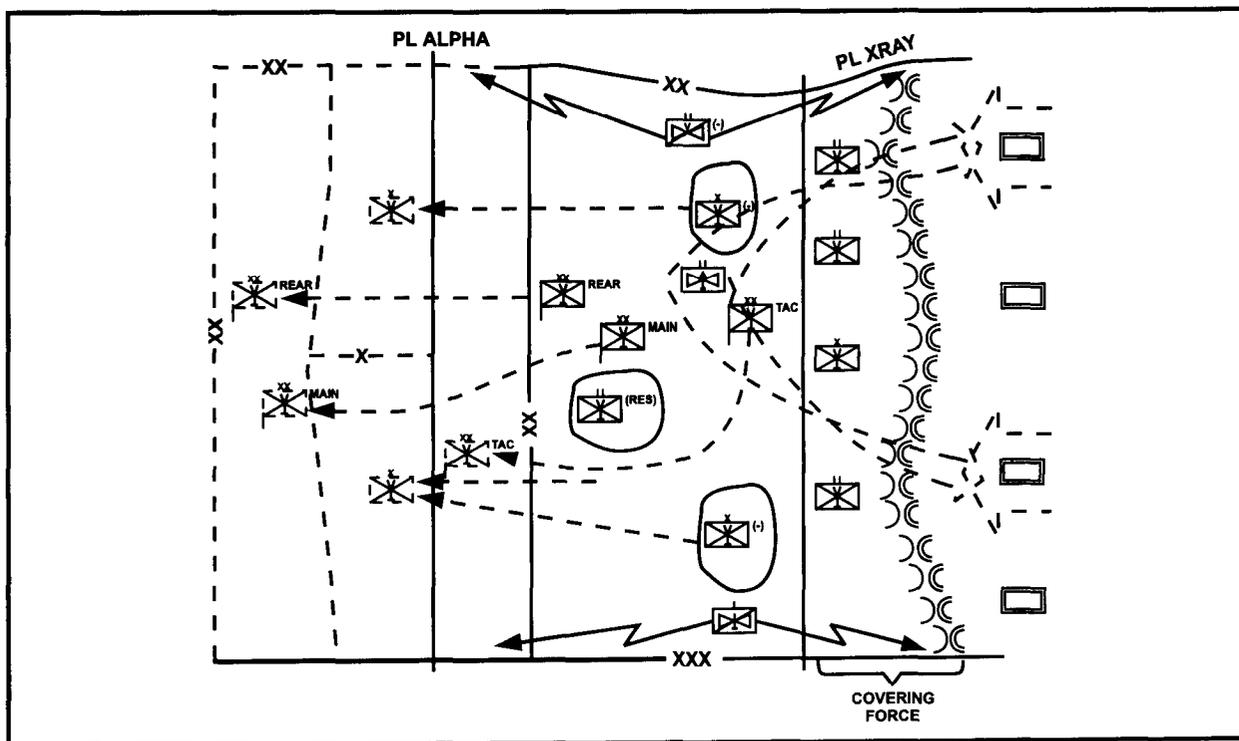


Figure 6-2. Retrograde operations: division maneuver

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<sup>2</sup>, 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<sup>2</sup> 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 defensible terrain which provides escape routes.

The two divisions exchange as much information as possible before the tactical operation. Representatives meet to coordinate—

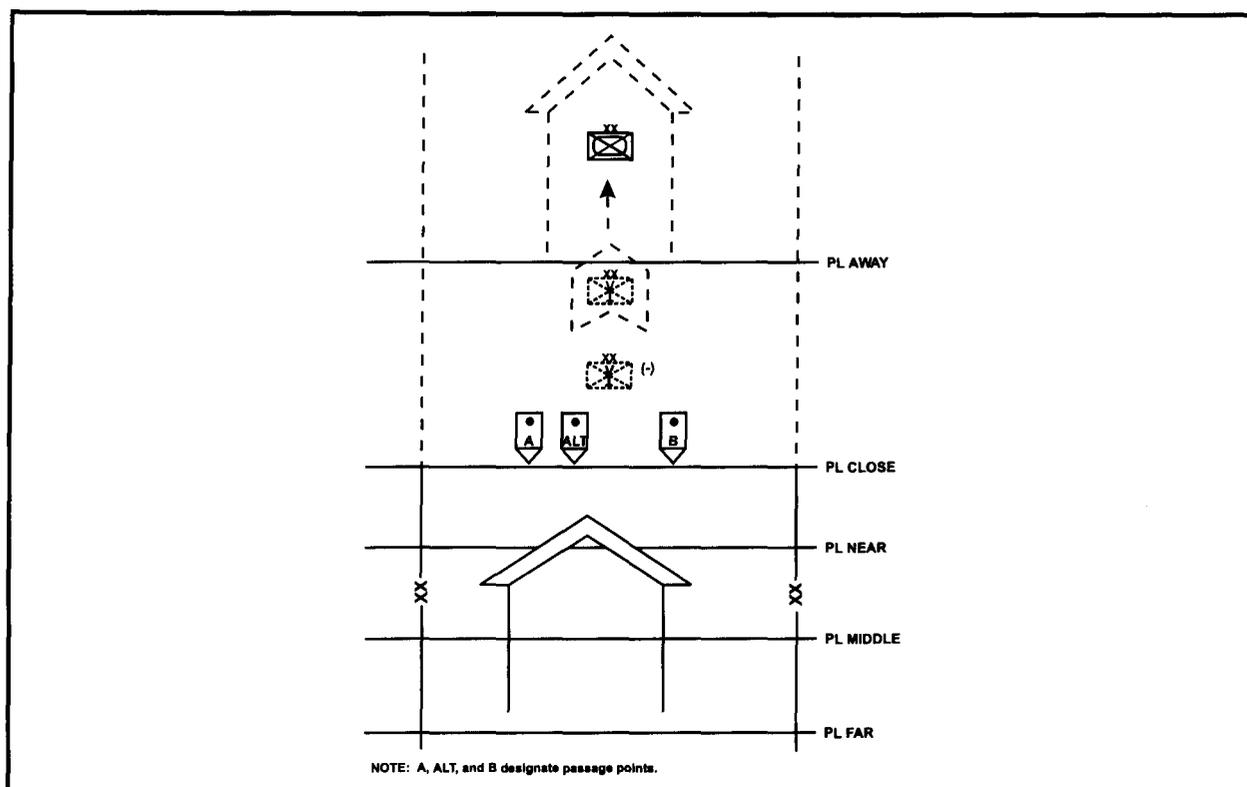
- Command relationships before, during, and after the linkup.
- Fire support.
- The implementation of control measures.
- Planned routes to linkup points.
- The location and description of primary and alternate contact points, linkup points, passage points, passage lanes, and release points.
- Recognition 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.

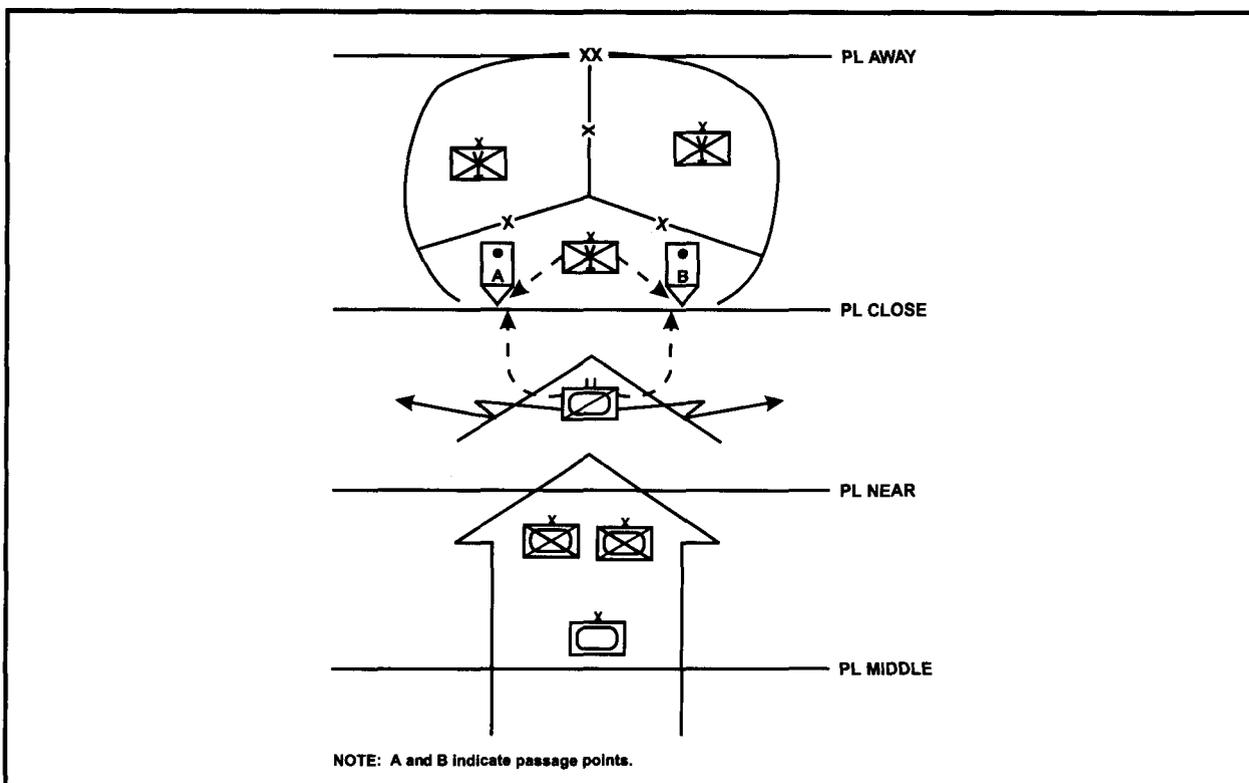
### **Intelligence**

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

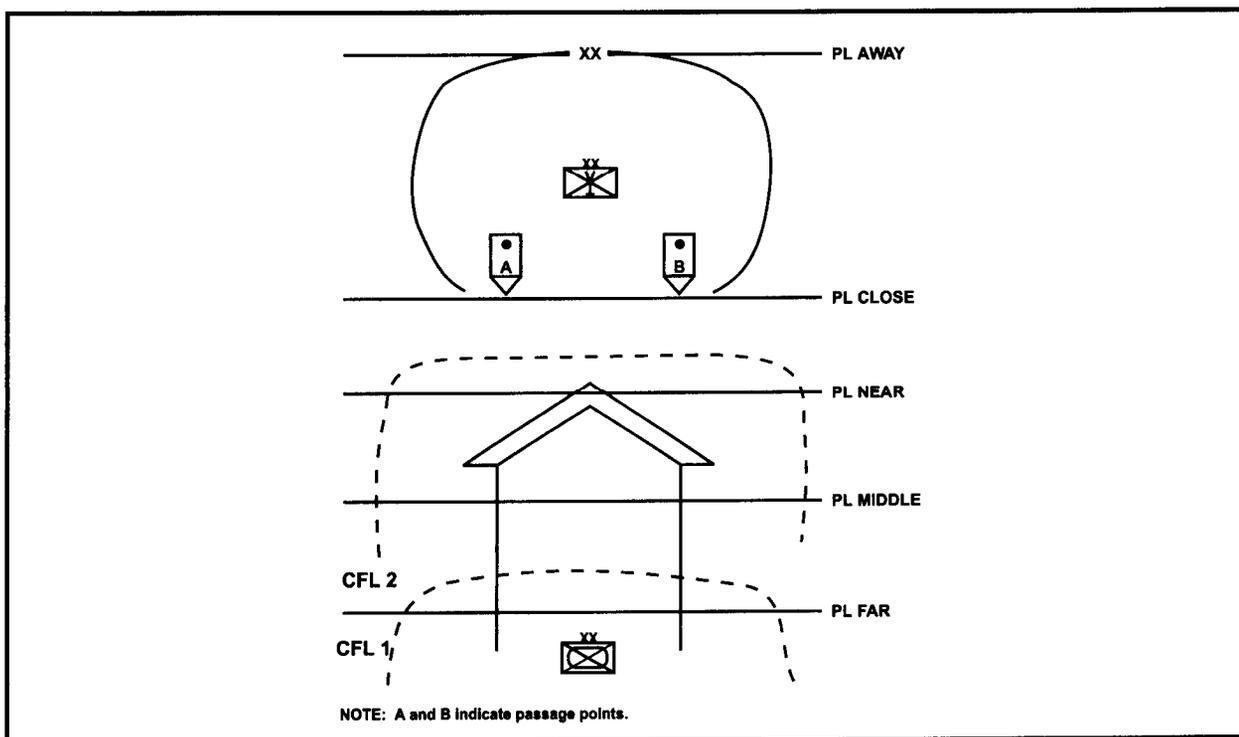


Figure 6-6A. Linkup operations: fire support, phase 1

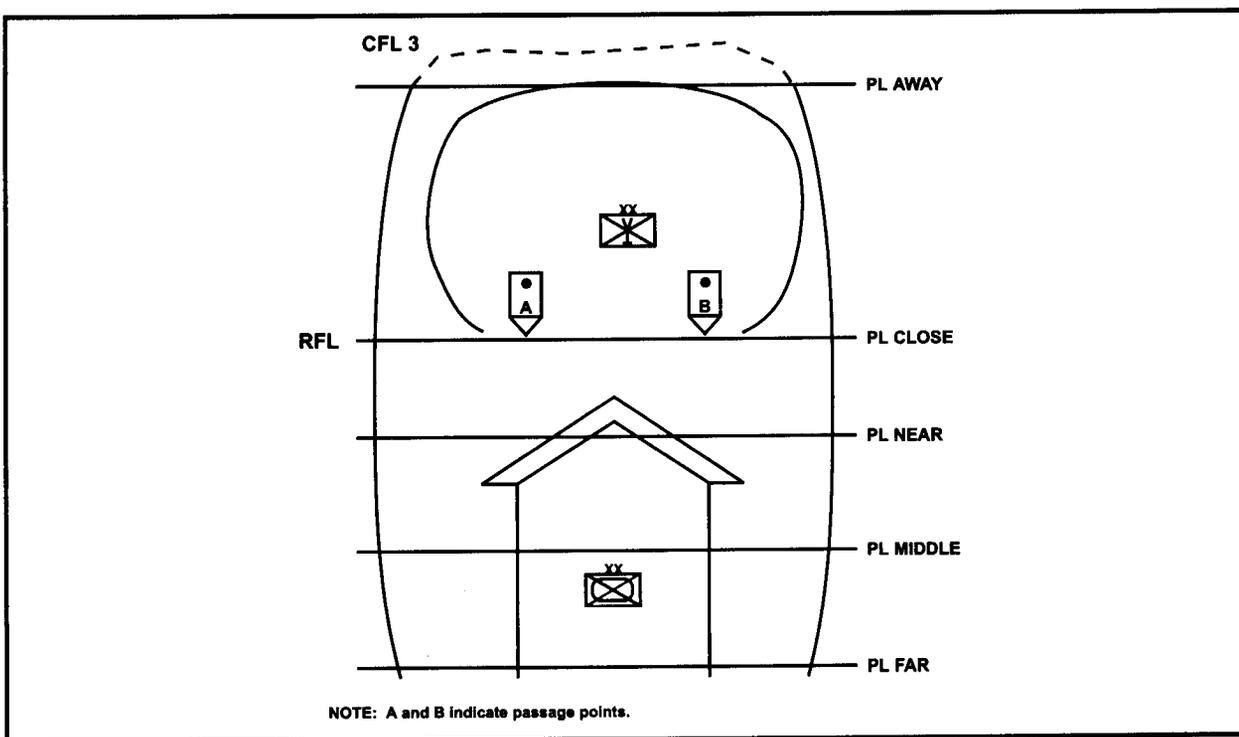


Figure 6-6B. Linkup operations: fire support, phase 2

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<sup>2</sup> 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—

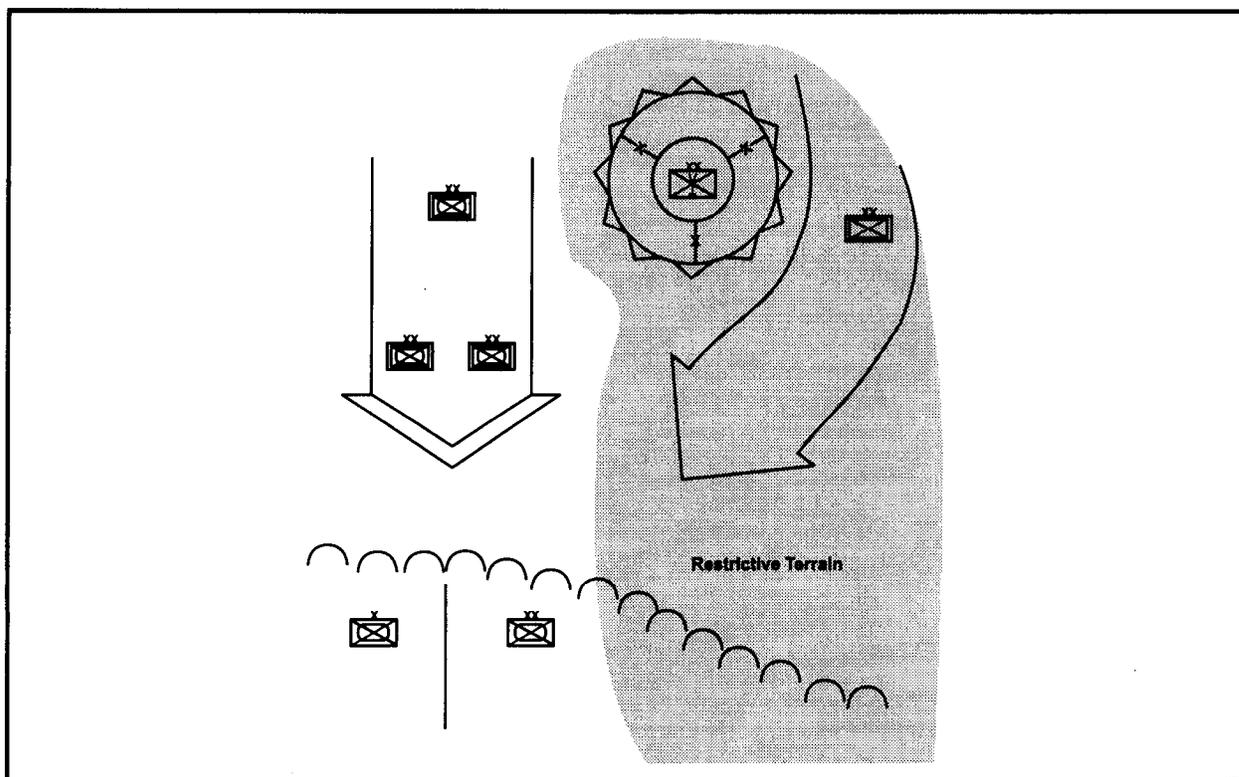
- The enemy is moving forces to reinforce his operation, and enemy reconnaissance elements are actively conducting R&S operations.
- The division can communicate with higher and lower units.
- Weather is marginal, but allows use of AF and AH assets.
- The corps will conduct a supporting attack at the 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 diver-

sionary 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.

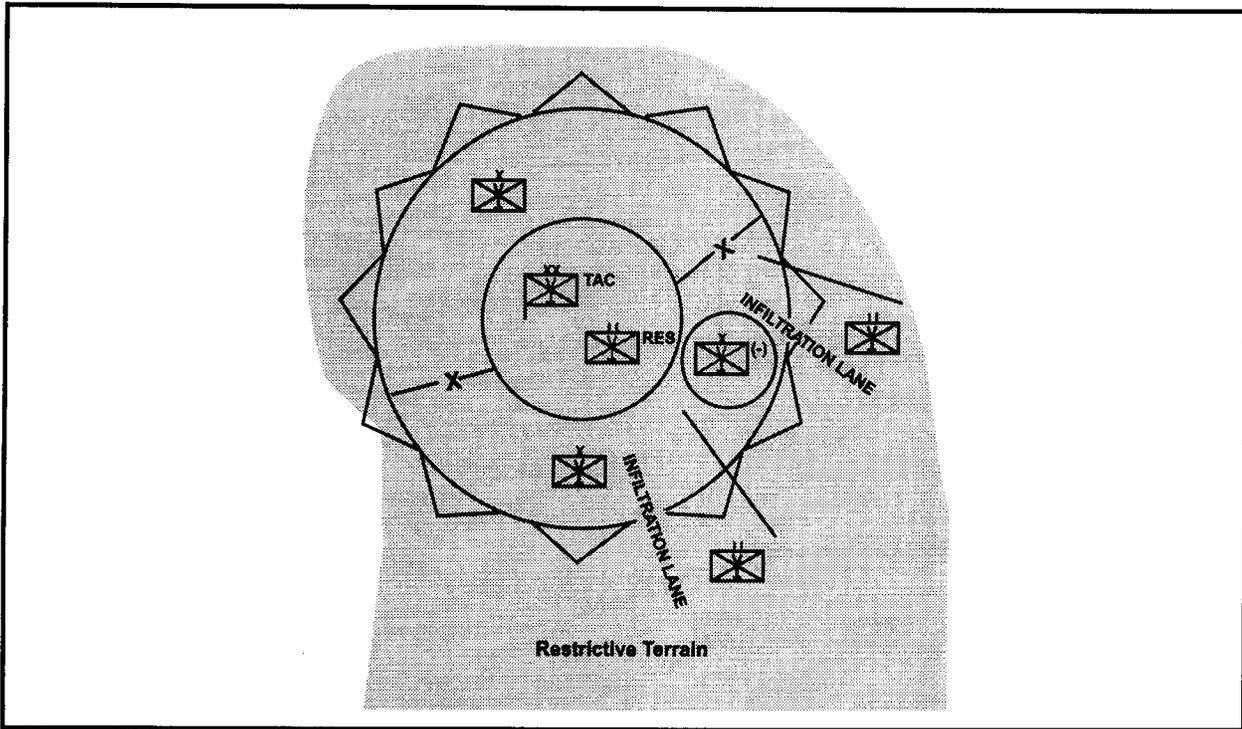


Figure 6-8A. Breakout from encirclement: maneuver

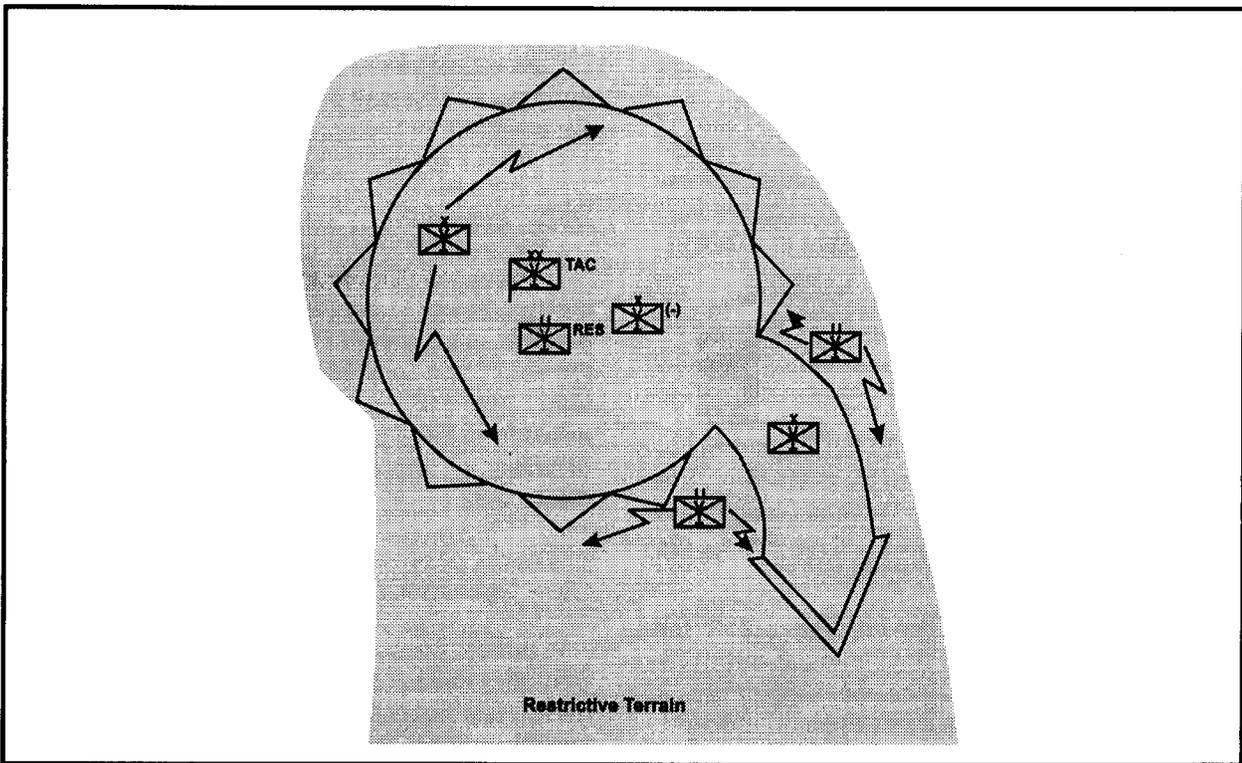


Figure 6-8B. Breakout from encirclement: maneuver

<b>Rupture Force</b>	<b>Main Body</b>
—AASLT Bde (-)	Div HQ
—Engr Co (L)	DISCOM Units
<b>AASLT Force</b>	DIVARTY HQ
—AASLT Bde	—ADA Bn
—FA Bn	—Engr Bn
—FA Bn	<b>Reserve</b>
—Engr Co (L)	—AASLT Bn
<b>Rear Guard</b>	

**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<sup>2</sup> 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 pre-positioning 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 counter-march 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		Cross Country	
	Day	Night	Day	Night
	(kmph)		(kmph)	
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		Cross Country	
	Day	Night	Day	Night
	(kmph)		(kmph)	
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<sup>2</sup> 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<sup>2</sup>C<sup>2</sup> 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<sup>2</sup>.
- 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 factor 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 unknown 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 AASLT 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 division 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 synchronizing 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.

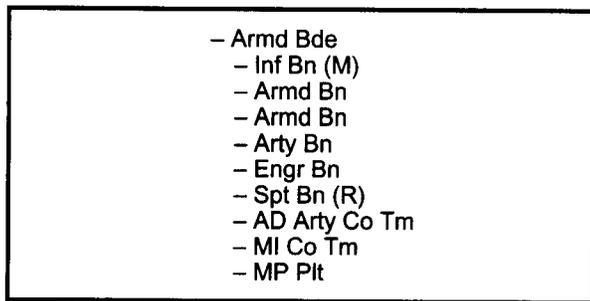
With CSS the central issue, the principal questions become evident. How much armor should the corps or JTF assign to the AASLT division? Should the corps or JTF attach or retain OPCON of the armored force?

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

maneuver 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 armored unit, 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 counter-attack, 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.