

Chapter 15

Relief in Place

... the necessity for conservation of the fighting power of the troops requires provision for the periodic relief of units in line.

FM 100-5, *Field Service Regulations: Operations*, 22 May 1941

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

15-1. There are three techniques for conducting a relief: sequentially, simultaneously, or staggered. A sequential relief occurs when each element within the relieved unit is relieved in succession, from

right to left or left to right, depending on how it is deployed. A simultaneous relief occurs when all elements are relieved at the same time. A staggered relief occurs when the commander relieves each element in a sequence determined by the tactical situation, not its geographical orientation. Simultaneous relief takes the least time to execute, but is more easily detected by the enemy. Sequential or staggered reliefs can take place over a significant amount of time.

15-2. A relief is either deliberate or hasty, depending on the amount of planning and preparations. The major differences are the depth and detail of planning and, potentially, the execution time. Detailed planning generally

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facilitates shorter execution time by determining exactly what the commander believes he needs to do and the resources needed to accomplish the mission. Deliberate planning allows him and his staff to identify, develop, and coordinate solutions to most potential problems before they occur and to ensure the availability of resources when and where they are needed.

ORGANIZATION OF FORCES

15-3. Both units involved in a relief in place should be of similar type—such as mounted or dismounted—and task organized to help maintain operations security (OPSEC). The relieving unit usually assumes as closely as possible the same task organization as the unit being relieved. It assigns responsibilities and deploys in a configuration similar to the relieved unit.

15-4. The relieving unit establishes advance parties to conduct detailed coordination and preparations for the operation, down to the company level and possibly to the platoon level. These advance parties infiltrate forward to avoid detection. They normally include the echelon's tactical command post, which co-locates with the main headquarters of the unit being relieved. The commander may also attach additional liaison personnel to subordinate units to ensure a smooth changeover between subordinate units.

CONTROL MEASURES

15-5. Control measures associated with a relief in place are generally restrictive to prevent fratricide. As a minimum, these control measures include the AO with its associated boundaries, battle positions, contact points, start points, routes, release points, assembly areas (AAs), fire support coordinating measures, and defensive fire coordination measures, such as target reference points and engagement areas. (See [Figure 15-1](#).) Expanded discussions of all these control measures appear elsewhere in this manual. A commander may use any control measure he feels is necessary to conduct a relief in place.

PLANNING A RELIEF IN PLACE

15-6. Once ordered to conduct a relief in place, the commander of the relieving unit contacts the commander of the unit to be relieved. The co-location of unit command posts also helps achieve the level of coordination required. If the relieved unit's forward elements can defend the AO, the relieving unit executes the relief in place from the rear to the front. This facilitates movement and terrain management.

15-7. In a deliberate relief, units exchange plans and liaison personnel, conduct briefings, perform detailed reconnaissance, and publish orders with detailed instructions. In a hasty relief, the commander abbreviates the planning process and controls the execution using oral and fragmentary orders. In both cases, the relieved unit designates liaison personnel from its combat, combat support (CS), and combat service support (CSS) elements to remain with the relieving unit until completing the necessary plans. The relieving unit receives current intelligence, operations, and logistics information from the unit being relieved, as well as from common higher headquarters, adjacent units, and subordinate elements. The complexity of a relief in place requires

extensive liaison and reconnaissance. Exchanging information about the enemy and civilian situations, friendly dispositions, terrain analysis, and fire support and obstacle plans, coupled with reconnaissance, helps the relieving commander plan and execute his mission.

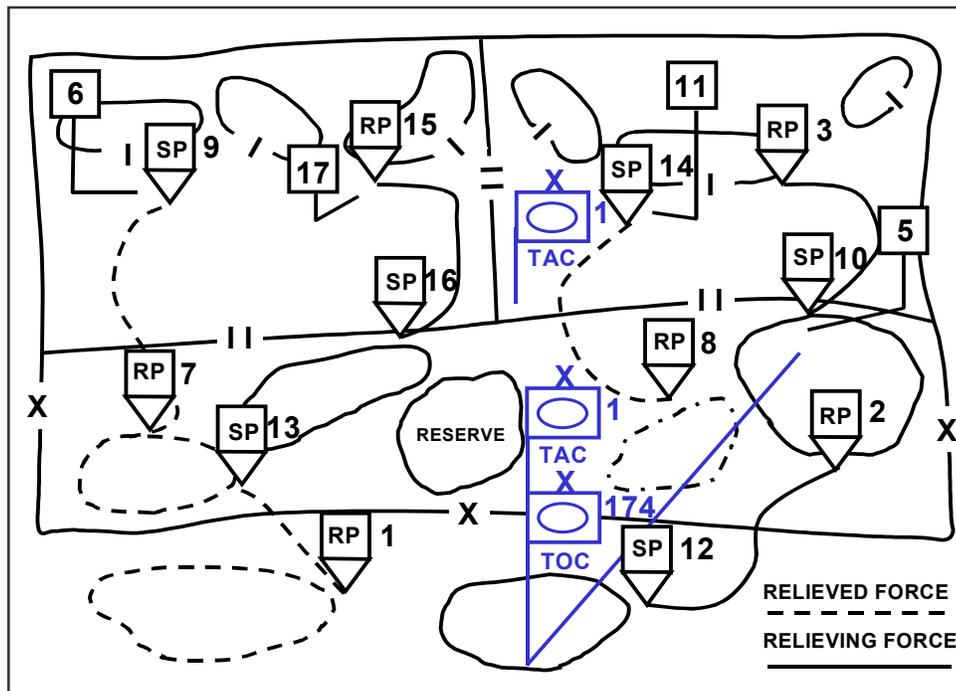


Figure 15-1. Overlay of a Brigade Relief in Place

15-8. The relief is a tactically vulnerable operation. The units involved must concentrate on security while preparing for and executing the operation. The intent of the operation is to complete the relief without discovery by the enemy. Consequently, commanders typically plan reliefs for execution during periods of reduced visibility, such as night or fog. Concealment of the relief from the enemy is a primary concern when the unit is conducting the relief as part of an economy of force measure to free forces for other operations. The enemy should perceive only one unit's command structure in operation—that of the unit being relieved—until completing the operation. This requires a detailed knowledge of friendly vulnerabilities. A counterintelligence assessment of enemy collective capabilities directed against the friendly forces involved in the relief can provide that detailed knowledge.

15-9. Generally, as soon as the mutual higher headquarters issues the warning order, the commander of the relieving unit co-locates one of his command posts with the command post of the unit being relieved. As a minimum, he establishes communications and liaison with that unit. The warning order designates the time of relief, relieving and relieved units, and sequence of events. It specifies the future missions of the relieved force, route priorities, any restrictions on advance parties, any extraordinary security measures, and the time and place for issuing the complete order.

15-10. During a relief, commanders and leaders from the relieving unit should conduct reconnaissance of the area for which they will assume responsibility. This leaders' reconnaissance should include the lowest-echelon leader allowed by the tactical situation. The reconnaissance should focus on the route into the position the unit is to occupy, the positions themselves, the current disposition of the unit being relieved, and any obstacles that could affect troop movement.

15-11. The two commanders must decide on a time or an event that initiates the passage of command. This allows the smooth transition of command and control from one commander to another. Normally, this occurs when the frontline subordinate commanders have assumed responsibility for their respective AOs and the incoming commander has sufficient communication facilities in operation to control the operation. Regardless of their parent organization, all units in the AO come under the operational control of the AO commander if the AO comes under attack or when a specified event occurs during the relief.

15-12. The fire support coordinators coordinate fire support coordinating measures and identify those artillery and other fire support units that are available to support the relief. The relieving unit adopts the fire plan of the unit being relieved. The fire support assets of both units support the relief. This is critical if the enemy detects the relief and tries to exploit the situation. Units plan their fires to deceive the enemy and expedite the relief. Units should maintain normal activity patterns. For example, a unit should continue to expend the same average number of artillery rounds per day during the relief that it expended prior to the initiation of the relief. The commander should not relieve fire support and other CS and CSS units at the same time as the maneuver units they support. The commander relieves these organizations at other times.

15-13. The relief plan must specify the method to use in relieving artillery units. If terrain allows, relieving artillery units should not occupy previously used firing positions. Instead, relieving firing units should establish firing positions nearby those firing positions of the relieved unit and carefully integrate their fire with that of the relieved unit. Occupying firing positions at night or during periods of poor visibility enhances OPSEC.

15-14. Priority of the air defense effort is to protect identified choke points, battle positions, routes to conduct the operation, and AAs. The air defense assets of both units support the relief. The air defense unit supporting the relieving force coordinates with the replaced force's supporting air defense unit. This coordination covers, but is not limited to, air intelligence preparation of the battlefield, rules of engagement, current air activity, present fire unit positions, Army airspace command and control information, the operation plan, logistics, and communications. Higher-echelon and joint air defense organizations may also support the relief. Provisions to obtain local air superiority reduce the vulnerability of the forces during the relief in place when the units involved cannot avoid congestion on the ground.

15-15. The relieving unit verifies the obstacle records of the unit being relieved. Handover of obstacles is a complex procedure. Initially, the engineer priority is on mobility to get the relieving unit into the AO. It focuses on those

routes and lanes leading into the AO. Once the relief occurs, priority of the mobility and survivability effort transitions to support the relieving unit's continuing mission. The commander may require his engineers to assist with survivability tasks to support the relieving force.

15-16. Force-intermingling inherent in a relief, places an increased burden on command and control systems. The consequences of mutual interference between the units and the complexity associated with such areas as traffic control, fire support coordination, obstacle plans, and communications require close coordination between all headquarters involved. Establishing early liaison between the stationary and the relieving forces is critical.

15-17. The relieving unit is responsible for all sustaining operations. As the support elements of the unit being relieved displace, they leave the relieving unit supply stocks according to previously coordinated arrangements. If the units conducting the relief have different modified tables of organization and equipment (MTOEs), mission analysis must be conducted to determine how the relieving unit will meet all of its responsibilities and what weapon systems will be used. The unit logistics staff must determine any special support requirements the relieving unit will have and address supporting those requirements with the available supporting organizations. The unit logistics staff ensures that both commanders know of any CSS constraints that might affect the relieving unit. The two units' rear command posts also co-locate and a single headquarters coordinates traffic movement into and out of the AO.

PREPARING A RELIEF IN PLACE

15-18. The commander conceals the relief from the enemy for as long as possible. At the first indication that a relief is necessary, which is usually the warning order for the relieving unit, both the relieved unit and the relieving unit review their OPSEC plans and procedures. Commanders may use deception measures when conducting a relief in place to maintain secrecy. To maintain security during the relief in place, the relieving unit makes maximum use of the relieved unit's radio nets and operators. Both units involved in the relief operate on the command frequencies and encryption variables of the relieved unit at all levels. The relieved unit's signal officer is in charge of communications throughout the relief operation.

15-19. To enhance security, commanders impose light and noise discipline and electromagnetic emission control measures, such as radio silence or radio-listening silence. In joint and multinational operations, the senior commander specifies the frequency bands and equipment types affected. Radio silence is a condition when the commander turns off all or specific radio equipment. Radio-listening silence is a situation in which combat net radios remain turned on and monitored, with strict criteria governing when a station on the radio network is allowed to break silence. An example of radio-listening silence would be, "Maintain radio listening silence until physical contact with the enemy is made."

15-20. The units conduct rehearsals to discover any weaknesses in the plan and familiarize all elements of both forces with the plan. Finding time for rehearsals requires commanders and staffs to focus on time management.

15-21. Reconnaissance elements of the relieving unit precede its movement with a route reconnaissance to the AA. They conduct reconnaissance of the routes leading from the AAs to the positions of the unit being relieved. The commander of the relieving unit normally conducts a leader's reconnaissance before starting the operation.

15-22. The commander must allocate time to construct individual vehicle fighting positions if a heavy unit is relieving a light unit. In a similar fashion, preparations for an armor heavy unit to relieve a mechanized infantry heavy unit must include expanding individual vehicle fighting positions to accommodate the larger tanks.

15-23. While the units involved plan, prepare, and execute the relief in place, their common higher headquarters and other units continue actions to mask the relief. These include using demonstrations, feints, smoke, and harassing and interdiction fires. The common higher headquarters executes operations to attack and disrupt the enemy's uncommitted and reserve forces during the relief. Its intent is to fix or distract the enemy so that he does not detect or interfere with the relief.

EXECUTING A RELIEF IN PLACE

15-24. In situations where the commander desires to conceal the relief from the enemy, such as during a sequential or staggered relief, the relieving unit may occupy the same positions as the unit it relieves. Alternatively, it may establish more favorable positions within the vicinity of the relieved unit's location. Occupying different positions makes early discovery by the enemy more likely. Any increase in activity in forward positions can reveal the relief to the enemy. Friendly intelligence, surveillance, and reconnaissance systems attempt to detect if the enemy can discover the relief before its completion.

15-25. The enemy can usually detect a relief effort because of the increased activity resulting from the movement of soldiers and equipment out of position by the relieved unit and into position by the relieving unit. Additionally, after any period of combat, there are differences in the types and amount of equipment between the relieving unit and the relieved unit, even if they have the same MTOEs. These differences can also reveal the relief to the enemy. The two units establish guidelines for exchanging compatible equipment and supplies to limit these differences. In addition, it may be necessary to exchange certain weapons, supplies, equipment, and occasionally, vehicles between units. When major differences in the number of combat systems between the units exist—for example, a tank-heavy task force relieves a mechanized infantry-heavy task force—inoperable equipment or visual simulators may assist in hiding the change of units.

15-26. In a simultaneous relief, the relieving unit begins moving from its current location to AAs in the AO of the unit being relieved. Once the relief begins, all elements involved execute the relief as quickly as possible. Both units are vulnerable to enemy attack because of the concentration, movement, and intermingling of forces in a simultaneous relief. Any unnecessary delay during execution provides the enemy additional time to acquire and engage the forces involved. All units in the AO come under the operational

control of the relieving unit commander at the time or triggering event previously established by the plan for the operation.

15-27. As the first relieving element arrives from the AA to assume the position, it establishes a screen of the relieved unit's positions as the tactical situation permits. The remainder of the relieving unit moves forward to positions behind the unit being relieved. The relieving unit may use the relieved unit's alternate and supplementary defensive positions to take advantage of any previous defensive preparations. At the previously established time or event, passage of command takes place. At that point, if possible, the commander of the relieving unit informs all units involved in the relief of the passage of command.

15-28. The relieved unit continues to defend. The relieving unit's advance parties coordinate procedures for the rearward passage of the relieved unit. On order, the relieved unit begins withdrawing through the relieving unit and moves to AAs. Crew-served weapons are usually the last elements relieved after exchanging range cards. The relieving unit replaces them on a one-for-one basis to the maximum extent possible to maintain the illusion of routine activity. The relieved unit's CS and logistics assets assist both the relieved unit and the relieving unit during this period.

15-29. A relief does not normally require artillery units to relieve weapon system for weapon system unless the terrain limits the number of firing positions available. Generally, the relieved unit's artillery and other fire support assets remain in place until all other relieved elements displace and are available to reinforce the fires of the relieving unit in case the enemy tries to interfere. If the purpose of the relief is to continue the attack, the artillery of both forces generally remains in place to support the subsequent operation.

15-30. Multiple main supply routes that allow only one-way traffic can simplify the forward and rearward movement of both units. The relieving unit's rear command post controls both units' military police and any other traffic management assets. (The main command post performs these functions if the echelon does not have a rear command post.) The commander uses these assets to help control unit and convoy movement on lines of communications, main supply routes, and movement routes throughout his AO.

15-31. In the future, it is likely that conflicts will involve the relief of an allied or coalition force. The commander should consider the following additional points when such reliefs occur:

- Dissimilar unit organizations may require special adjustments in assigned areas.
- Control of fire support may require special liaison.
- Language difficulties may require an increased use of guides and translators.
- Using relieved unit communications requires special signal arrangements and additional operators.
- Ammunition and equipment incompatibility may make exchanging assets more difficult.
- Impact of civilians on the operations.

Chapter 16

Passage of Lines

The principal task involved in a passage of lines is the preparation for continuing the attack.

FM 1005, *Field Service Regulations: Operations*, 22 May 1941

Passage of lines is a tactical enabling operation in which one unit moves through another unit's positions with the intent of moving into or out of enemy contact. A commander conducts a passage of lines to continue an attack or conduct a counterattack, retrograde security or main battle forces, and anytime one unit cannot bypass another unit's position. The conduct of a passage of lines potentially involves close combat. It involves transferring the responsibility for an area of operations (AO) between two commanders. That transfer of responsibility usually occurs when roughly two-thirds of the passing force has moved through the passage point. If not directed by higher authority, the unit commanders determine—by mutual agreement—the time to pass command. They disseminate this information to the lowest levels of both organizations.

- 16-1. The commander's reasons for conducting a passage of lines are to—
- Sustain the tempo of an offensive operation.
 - Maintain the viability of the defense by transferring responsibility from one unit to another.
 - Transition from a delay or security operation by one force to a defense.
 - Free a unit for another mission or task.

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

- 16-2. A passage of lines occurs under two basic conditions. **A forward passage of lines occurs when a unit passes through another unit's positions while moving toward the enemy. A rearward passage of lines occurs when a unit passes through another unit's positions while**

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moving away from the enemy. Ideally, a passage of lines does not interfere with conducting the stationary unit's operations.

ORGANIZATION OF FORCES

16-3. A unit may participate in a passage of lines as either the passing or stationary force. Except for co-locating command posts and providing for guides by the stationary force, conducting a passage of lines does not require a special task organization. Both the passing force and the stationary force maintain their previous combat organization during the passage. Usually, if the stationary unit has the capability, it is responsible for conducting operations against uncommitted enemy forces. However, operations directed against uncommitted enemy forces may be the responsibility of a higher echelon, depending on the echelon at which the passage takes place.

16-4. A forward passing unit's order of march is generally reconnaissance and security elements first. The ground combat force move next, followed by combat support (CS) and combat service support (CSS) units. The commander integrates his artillery, air defense, and engineers into the order of march in accordance with the factors of METTTC. The passing unit reverses this order of march in a rearward passage of lines. The stationary unit normally provides the moving unit with guides to expedite the passage. Attack helicopters and air cavalry are useful in providing security.

CONTROL MEASURES

16-5. Control measures associated with a passage of lines are generally restrictive to prevent fratricide. As a minimum, they include the AO, assembly areas (AAs), attack positions, battle handover line (BHL), contact points, passage points, passage lanes, routes, gaps, phase lines, and recognition signals. The headquarters directing the passage designates or recommends contact points, passage lanes, AAs, routes, and start and end times for the passage. The commander may also use start points, release points, fire support coordinating measures, such as coordinated fire lines (CFLs), and other control measures as necessary to conduct this task. (See [Figure 16-1](#), page 16-2.) Unless the higher headquarters of the two units establishes the necessary graphic control measures, the stationary unit establishes them for the passage. However, the stationary unit commander must coordinate them with the passing unit commander. The stationary unit establishes these measures because it owns the terrain, it knows where the obstacles are, and it knows the tactical plan. If the control measures dictated by the higher headquarters are not sufficient—because they do not contain enough passage points, lanes, and so forth—the two units can agree to add the necessary measures.

16-6. A **passage point** is a specifically designated place where the passing units pass through the stationary unit. The location of this point is where the commander wants subordinate units to physically execute a passage of lines. In a forward passage of lines, the passage point marks the location where the passing unit is no longer bound by the restrictions placed on it by the stationary force. On the other hand, in a rearward passage of lines, the passage point marks the location where the stationary unit can restrict the movement and maneuver of the passing force. Between the contact

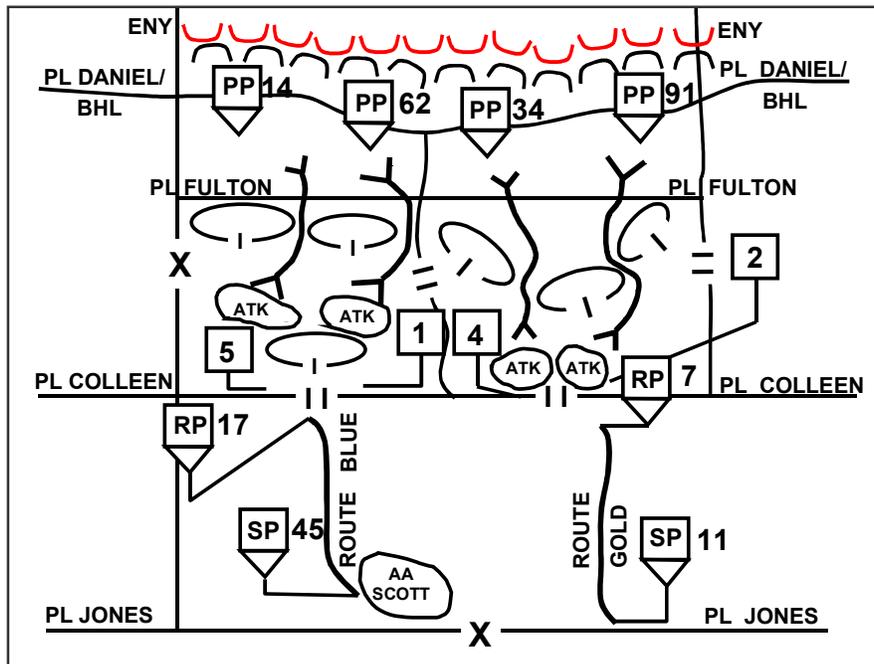


Figure 16-1. Control Measures Associated with a Forward Passage of Lines

point and the passage point, the stationary unit controls the passing force's movement. Figure 16-2 depicts the graphic control measure for passage point 8.

16-7. A **passage lane** is a lane through an enemy or friendly obstacle that provides safe passage for a passing force. The lane may be cleared, including being reduced and proofed, as part of a breach operation, or it may be included as part of the design of a friendly obstacle. It is a clear route all the way through an obstacle. Passage lanes normally end where a route begins. That route should allow the passing unit to move rapidly through the stationary unit's area. Figure 16-3 depicts the graphic control measure for a lane.

16-8. A **gap** is an area free of armed mines or obstacles whose width and direction allow a friendly force to pass through the area containing obstacles while dispersed in a tactical formation. The presence of gaps prevents inadvertent concentrations of soldiers and equipment around the entry points of lanes. Figure 16-4 depicts the graphic control measure for a gap.

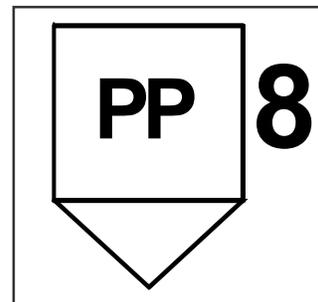


Figure 16-2. Passage Point 8

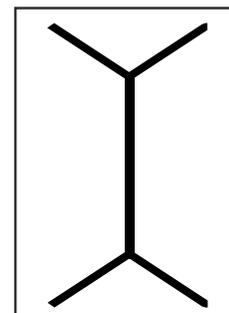


Figure 16-3. Lane

PLANNING A PASSAGE OF LINES

16-9. As with any activity involving transferring combat responsibility from one unit to another, the complex nature of a passage of lines involves risk. As with other operations, a passage of lines may be categorized as deliberate or hasty. During a passage of lines, the commander normally maintains the established tempo. Sustaining that established tempo requires detailed planning and preparations for a deliberate passage of lines. In this case, both the stationary and moving force have time to—

- Publish written orders.
- Exchange plans, intelligence information, databases, and liaison personnel.
- Conduct briefings and detailed reconnaissance.
- Conduct rehearsals.

The commander uses oral and fragmentary orders to conduct a hasty passage of lines.

16-10. In a passage of lines, the headquarters directing the passage is responsible for designating—

- Subsequent missions for both forces.
- When and under what conditions passage of command takes place.
- Start and finish times for the passage.
- Contact points between the units involved.
- Common maneuver control measures and graphics.

The directing headquarters normally establishes this information in either the warning order or the order directing the passage. In the absence of higher-echelon guidance, close coordination and understanding between the commanders and staffs of the two units are essential to a smooth passage.

16-11. The unit commanders plan the passage of lines to maintain enemy contact and provide constant fires on the enemy. Commanders reduce risk and ensure synchronization through detailed planning and decentralized execution. With forces intermingling during the passage, the need for positive control increases. The passage requires close coordination, clearly understood control measures, liaison between all headquarters and echelons involved in the passage, and clear identification of the moment or event that causes one force to assume responsibility for the AO from another.

16-12. After receiving the warning order that directs a passage of lines, the passing unit's commander and key staff representatives generally co-locate with the command post of the stationary unit to facilitate in planning the passage and establishing common situational understanding. If the passing unit cannot co-locate one of its command posts to help plan the passage, it conducts extensive liaison with the stationary unit. The planning focus for both the passing unit and the stationary unit is on operations following the passage. While this occurs, the two units involved coordinate the following:

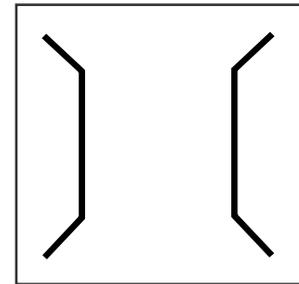


Figure 16-4. Gap

- The exchange of intelligence and combat information.
- Current friendly dispositions and tactical plans, especially deception and obstacle plans.
- Direct and indirect fires and close air support plans.
- Any necessary maneuver control measures and graphics not directed by the higher headquarters, such as boundary changes, the BHL, emergency CSS points, and AA and firing positions for artillery, air defense, and other units.
- Long-range and short-range recognition symbols and vehicle markings to reduce the probability of fratricide.
- When and under what conditions control of the AO transfers from one headquarters to the other, if not previously established.
- Provisions for movement control, including contact points, start and release points, primary and alternate routes, route selection, priorities for using routes and facilities, passage points, and provision for guides.
- Reconnaissance by elements of the passing unit.
- Signal operating instruction details, such as call signs, frequencies, and recognition signals.
- Security measures during the passage, including nuclear, biological, and chemical reconnaissance or biological detection systems.
- Fires, obscurants, and any other combat, CS, and CSS provided by the stationary unit.
- Measures to reduce both units' vulnerability to attack by enemy weapons of mass destruction.
- Operations security measures required before or during the passage.
- Allocation of terrain for use by the passing force.
- Air defense cover—up to and forward of the BHL.
- Logistics support for the passing unit provided by the stationary unit, especially fuel, maintenance, and medical treatment.

16-13. The fire support elements of both the stationary and the passing unit must agree on allocating firing positions. The AO commander controls the allocation of firing positions in case of disagreement. These positions must be far enough forward to support the operation without having to redeploy during critical stages of the battle. The fire support elements normally position in areas not identified by the enemy.

16-14. Detailed air defense planning is essential for a passage of lines. Moving units tend to move slowly and often in some type of column formation during the passage. Vehicle congestion presents lucrative targets to enemy aircraft. In most cases, the stationary air defense elements can protect the passing force, allowing the air defense units supporting the passing force to move with the passing force. Dissemination of early warning and Army airspace command and control information reduces the risk of fratricide to friendly aviation assets while increasing the probability of the timely detection of enemy air. Strict adherence to identification, friend-or-foe (IFF)

procedures among pilots and air defense fire units is critical, especially during periods of limited visibility. Local air superiority also reduces the vulnerability of the two forces when congestion cannot be avoided on the ground.

16-15. Once a passage of lines begins, it occurs quickly. Where possible, the operation takes place when the enemy has the least capability to detect it, such as at night or during periods of reduced visibility. In any passage of lines, the commander considers using smoke to screen friendly movement, even at night.

16-16. The passing unit prefers to conduct the passage through a gap in the stationary unit's positions rather than through a lane or a route that traverses those positions. This reduces the vulnerability that results from concentrating forces when one unit passes directly through the occupied positions of another unit. It also avoids the danger of concentrating the passing unit into passage lanes.

16-17. In a forward passage of lines, when there are no gaps through the stationary unit's positions, each battalion task force normally needs at least two passage lanes. In a rearward passage of lines, each battalion needs at least one passage lane. In both cases, a brigade needs at least one additional lane for its tactical vehicles. The routes and lanes provide cover, concealment, and rapid movement of the passing force. The commander may designate alternative routes and lanes for elements of the moving force that are contaminated. They should not disrupt the combat capability of the stationary unit. The commander seeks additional lanes to speed the process if the terrain and enemy situation allow.

16-18. The passing unit normally has priority of route use to and within the stationary unit's AO. Clearing and maintaining passage routes up to the BHL are the responsibility of the stationary force. The stationary force must provide an obstacle overlay of its obstacles. The passing unit must be prepared to help maintain these routes, and it positions its engineer equipment accordingly. The stationary unit is responsible for traffic control within its AO until the passing unit assumes control. During the passage, the passing unit augments the traffic-control capability of the stationary unit as required.

16-19. Based on the commander's concept and intent, the passing force focuses its planning effort on two general areas: coordination with the stationary force and guidance to subordinate units conducting the passage. These planning efforts occur simultaneously. If the enemy attacks during the passage, the plan probably requires modification to prevent hampering friendly maneuver.

16-20. Executing a passage of lines successfully requires effective communication between the two units. The commanders build redundancy of communication signals and means into their passage plans, such as using mobile subscriber equipment and combat net radios. The commanders also designate contact points to ensure effective communication between the two forces at the lowest tactical level.

FORWARD PASSAGE OF LINES

16-21. The purpose of a forward passage of lines is to move forces forward to conduct operations. It ensures the maintenance of enemy contact while allowing the relief of previously committed forces. The stationary force must control and secure the AO far enough to its front that the moving force can pass through the stationary force and reform into a combat formation prior to contact with an enemy force. Generally, the stationary unit supports the passing unit until the passing unit masks the stationary unit's direct fires. The stationary unit continues to support the passing force with its fire support systems until the passing unit moves beyond the supporting range of the stationary force. The stationary unit is also responsible for the security of the line of departure of the forward passing unit until it is able to assume that responsibility. The boundaries of the forward passing force after it completes its passage do not have to coincide with the boundaries of the stationary force. (See Figure 16-5.)

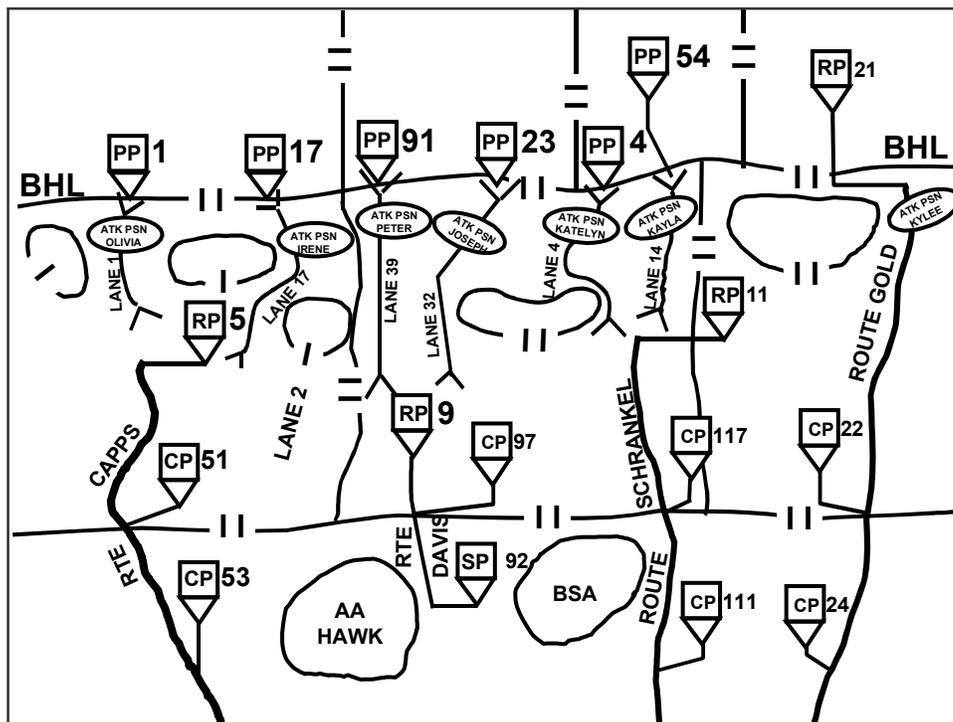


Figure 16-5. Forward Passage of Lines

PREPARING A FORWARD PASSAGE

16-22. The passing unit conducts reconnaissance from its current location to its designated AAs, which are generally located to the rear of the stationary unit. After completing its reconnaissance, the passing unit occupies these AAs.

16-23. The commander should organize the passing force for its subsequent mission before initiating the forward passage of lines. The passing force avoids regrouping in forward AAs or attack positions.

EXECUTING A FORWARD PASSAGE

16-24. When the passing force moves forward, it should move without a halt through the stationary unit while deployed in a combat formation. That minimizes the time the two forces are concentrated in the forward area, making them less vulnerable to enemy attack.

16-25. Support by the stationary force ends when the combat elements of the moving force, including the reserve, have moved beyond direct-fire range. However, artillery, air defense, and other long-range systems may remain to support the passing unit until a previously designated event occurs or a higher headquarters directs another mission.

16-26. When executing the forward passage, the passing unit's reconnaissance elements operate forward of the release points and establish a screen in front of the passing unit. The stationary unit continues to conduct aggressive security operations throughout the passage of lines. The movement of main body forces begins from their AAs to attack positions, where the passing unit conducts its final preparations for the passage of lines and the attack. The passing unit moves to and occupies attack positions when observation by the enemy is unlikely. The stationary unit clears any obstacles from designated passage gaps, lanes, or routes, and guides elements of the passing unit from the contact point through the passage points.

16-27. The direct and indirect-fire assets of the stationary unit normally support the movement of the passing unit. Offensive information operations—especially electronic attack—directed against enemy command and control (C2) nodes disrupt his dissemination of information and his reaction to friendly operations. Any preparatory or covering fires should coincide with the passing unit's movement from the attack position to the passage lanes. After the forward moving unit commander assumes responsibility for the AO, he coordinates all fire support. Depending on the situation at the time, the passing commander may continue to use only the fire support assets of the stationary force until the passage of lines is complete. This allows the passing unit's fire support assets to move forward, in the case of artillery, or remain available to support the passing unit's forward movement, in the case of attack helicopters and close air support. On passage of command, the passing commander also assumes control of fires forward of the BHL. For example, he moves the CFL forward to conform to the movement of his forward security elements.

16-28. The superior headquarters of the forces involved should exercise overall C2 of the passage. In a forward passage, the commander of the passing force normally assumes responsibility for conducting operations beyond the BHL once the attack begins. In practice, however, it is useful to complete the transfer of responsibility, including fire support, just before starting the operation. During the passage, two parallel chains of command are operating in one area simultaneously, and the possibility of confusion exists. A successful passage of lines requires clear C2 responsibilities. The passing unit's command post passes through the lines as soon as possible after the lead elements complete their passage and locates where it can best control operations.

16-29. The stationary unit furnishes the passing unit with any previously coordinated or emergency logistics assistance within its capabilities. These typically include—

- Evacuating casualties and enemy prisoners of war.
- Controlling dislocated civilians.
- Using areas and facilities such as water points and medical facilities.
- Controlling routes and traffic management.
- Recovering disabled vehicles and equipment.

The passing force normally assumes full responsibility for its CSS support forward of the BHL.

16-30. When dissimilar units, such as light infantry and mounted forces, are involved in a passage of lines, the principles involved are the same; however, the execution is different. For example, the type and amount of support provided by the stationary unit will change. In some cases, the higher headquarters ordering the passage needs to provide assets to support the passage.

REARWARD PASSAGE OF LINES

16-31. A rearward passage of lines is similar in concept to a forward passage of lines. It continues the defense or retrograde operation, maintaining enemy contact while allowing for recovery of security or other forward forces. This operation may or may not be conducted under enemy pressure. Counterintelligence analysis provides an assessment of enemy collection against friendly forces, specified by gaps and vulnerabilities, and countermeasures to enemy collection. Additionally, that analysis provides the commander with a view into the enemy's decision making and intelligence cycles and the time period in which the enemy may discover the movement.

PLANNING A REARWARD PASSAGE

16-32. Planning procedures for a rearward passage of lines closely resemble the planning procedures for a forward passage of lines. However, rearward movement is likely to be more difficult because of the following:

- The enemy probably has the initiative, which tends to reduce the time available to conduct liaison and reconnaissance and make detailed plans.
- If the rearward moving force has been in action, its soldiers are tired and possibly disorganized to some degree.
- The enemy may be applying pressure on the passing force.
- Friendly forces may be more difficult to recognize because enemy forces may be intermixed with them.

16-33. Close coordination between the two commanders is crucial to successfully executing the rearward passage and subsequent transfer of responsibility. This requirement for close coordination is even more critical when the tactical situation results in a staggered or incremental rearward passage across an AO. The passing commander relinquishes control of his elements remaining in contact at the time of the transfer of responsibility to the stationary commander. Generally, the stationary unit assumes control of the AO

forward of the BHL after two-thirds of the passing force's combat elements move through the passage points.

16-34. After receiving the warning order, the passing unit begins coordination and establishes communication with the stationary unit. The commanders of these units coordinate the same details as those outlined for a forward passage of lines. For example, the stationary commander coordinates for fires to support the rearward passing force. The two staffs coordinate those control measures necessary to support retrograde operations and their associated rearward passage of lines. (See paragraphs 16-5 to 16-8.) The commanders establish a probable time to initiate passage. The stationary commander assigns responsibility for closing and executing obstacles.

16-35. The stationary unit identifies multiple routes through its AO and across its rear boundary to AAs. The passing unit begins reconnaissance of these routes as soon as possible. The stationary unit must physically show all obstacles and routes and gaps through them to the passing unit. It provides guides for the passing unit—especially through obstacles—and mans contact points and passage points. The passing unit begins to reconnoiter its routes to the established contact points with the stationary unit's troops. The stationary unit establishes a security area in which responsibility transitions from the moving force to the stationary force. Normally, a BHL designates the forward edge of this area. The BHL is within direct-fire range and observed indirect-fire range of the stationary force.

PREPARING A REARWARD PASSAGE

16-36. The command posts of both units involved should move to a position where they can co-locate as part of the preparations for the rearward passage. This co-location reduces the risk associated with a passage because it makes it easier to coordinate between the two units. If circumstances prevent the units' command posts from co-locating, they must exchange liaison teams to ensure thorough coordination. If necessary, fire support assets from the stationary force occupy positions forward of their primary positions to give maximum coverage of forces of rearward moving unit.

EXECUTING A REARWARD PASSAGE

16-37. The passing unit maintains command of its subordinate elements throughout the retrograde and rearward passage. The normal order of march in a rearward passage of lines is CSS elements, main command post, CS elements, tactical command post, and combat units. The passage point marks the location where the passing unit comes under the control of restrictions placed by the stationary unit. (See [Figure 16-6](#).) Note that the unit on the far right does not have a passage point because of the gap existing at that location. If the enemy continues to press his attack during the passage, the passing unit controls the battle from co-located command posts while the stationary unit monitors and controls the passage of lines until battle handover occurs. The passing unit's command post passes through the lines as soon as possible after the lead elements complete their passage. On passage of command, the stationary unit assumes the defense of the AO.

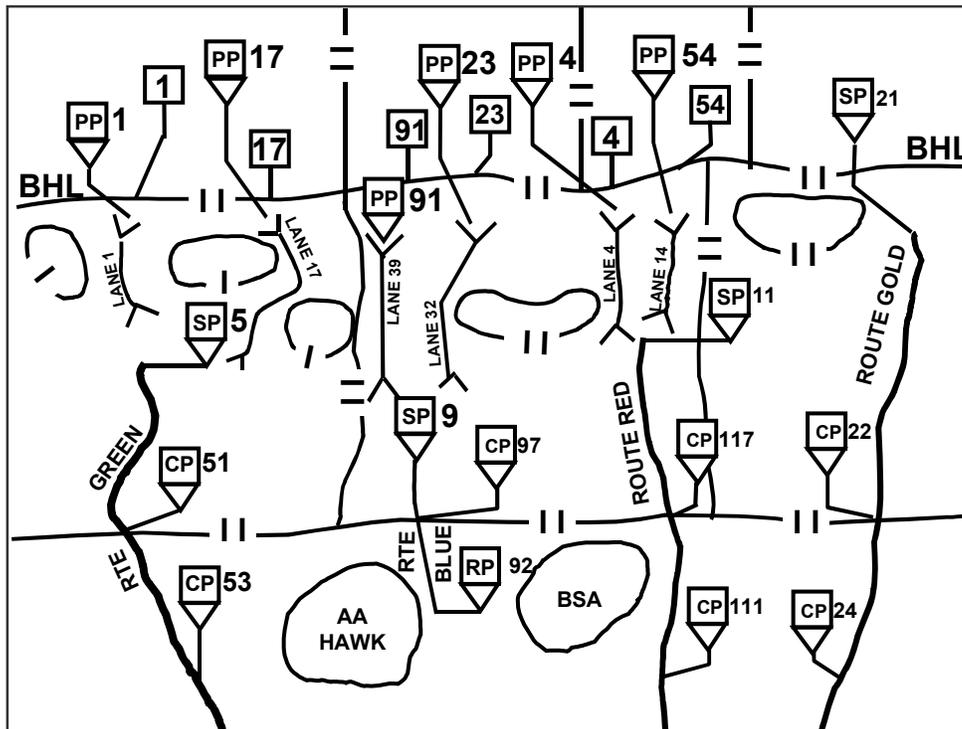


Figure 16-6. Rearward Passage of Lines

16-38. The stationary unit provides the passing unit with as much assistance as possible. Pivotal to the success of the rearward passage of lines is providing indirect and direct fire support by the stationary unit to the passing unit. This is especially important in covering the withdrawal of elements left in contact during a delay. The stationary unit's fire support assets answer calls for fire from the passing unit until battle handover occurs. The passing unit's fire support assets echelon rearward to provide continuous fire support for the passing unit until it successfully disengages. Once the passing unit hands over control of the battle to the stationary unit, the stationary unit initiates and clears calls for all fires forward of its location. The same procedure applies to the dedicated air defense assets of the passing and stationary units.

16-39. The stationary unit's engineer assets provide support to prepare the defense and execute the passage. Priority of effort initially ensures that the passing unit is able to move through passage lanes around the stationary unit's defensive positions. It shifts to close these passage lanes once the passing unit and any security elements disengage and withdraw through the security area and obstacles.

16-40. The stationary unit provides the passing unit with the previously coordinated CSS as far forward as possible. The stationary unit concentrates on providing the passing unit with emergency medical, recovery, and fuel supplies to enable the passing unit to rapidly move through the stationary unit's positions.

Appendix A

Army Branches and Tactical Echelons

It is not so much the mode of formation as the proper combined use of the different arms which will insure victory.

Antoine Henri, Baron de Jomini: *Precis de l'Art de la Guerre*, 1838

The Army consists of the active component, reserve components, and civilians acting in concert with other US services and allies. Its flexibility, versatility, and adaptability are based on a broad range of branch capabilities and echelons that can be rapidly tailored for deployment and task-organized for the prevailing conditions of METT-TC. The Army groups its force structure into three general categories: combat, combat support (CS), and combat service support (CSS). Each category incorporates diverse capabilities of varying degrees of lethality, deployability, sustainability, and survivability. There are more than 400 types of Army units. Each category complements and reinforces the others and the joint force. Appropriate combinations provide a balanced and versatile force mix, maximizing the commander's freedom of action in virtually any METT-TC condition.

A-1. There is no primary or dominant branch or arm. One branch reinforces or complements the effects of another, such as heavy forces in a support-by-fire position reinforcing an assault by light forces with their large-caliber, direct-fire weapons. Some branches have capabilities that can be described as combat arms, CS, or CSS, depending on the specific situation. Much of a

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commander's effectiveness during an operation relies on his ability to rapidly reinforce and complement weapon systems' effects in symmetrical and asymmetrical ways.

COMBAT ARMS

A-2. **Combat arms** are units and soldiers who close with and destroy enemy forces or provide firepower and destructive capabilities on the battlefield. Combat branches of the US Army include Air Defense Artillery, Armor, Aviation, Engineers, Field Artillery, Infantry, and Special Forces (SOF). Figure A-1 lists some types of units that deploy to support operations. The Army classifies combat arms units as heavy, light, or special operations forces. However, the Army is currently developing a medium weight force capable of increased strategic responsiveness in full spectrum operations.

<ul style="list-style-type: none"> • AIR DEFENSE ARTILLERY <ul style="list-style-type: none"> ▪ Short Range ▪ Theater Air Defense ▪ Theater Ballistic Missile Defense • ARMOR <ul style="list-style-type: none"> ▪ Armor ▪ Armored Cavalry ▪ Light Cavalry • AVIATION <ul style="list-style-type: none"> ▪ Attack ▪ Assault ▪ Air Cavalry • ENGINEERS <ul style="list-style-type: none"> ▪ Mobility ▪ Countermobility ▪ Survivability 	<ul style="list-style-type: none"> • INFANTRY <ul style="list-style-type: none"> ▪ Light ▪ Mechanized ▪ Motorized ▪ Air Assault ▪ Airborne • FIELD ARTILLERY <ul style="list-style-type: none"> ▪ Target Acquisition ▪ Cannon Artillery ▪ MLRS/ATACMS • SPECIAL OPERATIONS FORCES <ul style="list-style-type: none"> ▪ Ranger ▪ Special Forces ▪ Special Operations Aviation
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Figure A-1. Combat Arms Capabilities

A-3. Heavy forces employ a combination of armored and mechanized forces that use their tactical mobility, protection, and firepower to close with and destroy the enemy, seize and hold terrain, and conduct reconnaissance. They consist of armor, mechanized infantry, aviation, and armored cavalry. Heavy forces employ tanks, armored fighting vehicles, attack and utility helicopters, and dismounted infantry to form the nucleus of a combined arms team that delivers mobile, protected firepower to create tremendous shock effect. The combination of mobile, protected firepower with dismounted infantry achieves complementary and reinforcing effects that neither can attain separately. However, restricted and urban terrain place limits on where the commander can employ them.

A-4. Light forces close with and destroy the enemy, seize and hold terrain, and gain information. Light forces traditionally include light infantry,

airborne, and air assault forces. Light forces are particularly suited to operations in restricted and urban terrain, where they have a mobility advantage over heavy forces. Light forces are limited by a relative lack of protection against direct and indirect fires and limited firepower compared with heavy forces. They also have limited organic tactical mobility once deployed into an area of operations (AO) compared to heavy forces. While light forces may be lifted into engagement areas (EAs) by truck, helicopter, or airplane, they fight mainly on foot. Depending on the factors of METT-TC, light forces either complement or are complemented by heavy forces.

A-5. Special operations are actions conducted by specially organized, trained, and equipped military forces to achieve military, diplomatic, economic, or psychological objectives by unconventional means. Special operations forces can reinforce, augment, and complement conventional forces, heightening the effectiveness of the total effort. These forces can also conduct independent operations in situations that demand a small, discrete, highly trained force. The principal SOF missions are—

- Unconventional warfare.
- Foreign internal defense.
- Psychological operations. (See Paragraph A-37.)
- Civil affairs. (See Paragraph A-36.)
- Information operations.
- Direct action.
- Special reconnaissance.
- Combating terrorism.
- Counterproliferation.

Five types of units compose Army SOF. Army special operations aviation (SOA), rangers, and special forces (SF) units are combat arms forces. Civil affairs (CA) and psychological operations (PSYOP) units are CS organizations. FM 3-05 is the capstone manual for Army SOF.

A-6. The Army is currently fielding two initial brigade combat teams (IBCTs) as the prototypes of a medium weight force designed for increased strategic responsiveness across all types of military operations. After experimentation, these two IBCTs will transform into an interim, strategically responsive force, which may expand to encompass almost a third of the regular Army's ground maneuver brigades. The desired end state of the objective force is an operational force strategically responsive through increased deployability and greatly reduced sustainability requirements when compared with current heavy forces. The goal for the objective force is to deploy a brigade anywhere in the world and close within 96 hours, given sufficient ports and strategic lift. The objective force will also retain or increase the tactical agility, lethality, and survivability of current heavy forces and the versatility of current light forces. Developing the objective force's combat and tactical vehicles requires scientific and technological breakthroughs.

AIR DEFENSE ARTILLERY

A-7. Air defense artillery (ADA) units provide force protection against air and missile threats. Tactical air defense supports the overall objectives of divisions and corps. Air defense artillery air and missile defense units protect

maneuver forces and vital assets. Divisional ADA units provide short-range air defense (SHORAD) protection for units conducting tactical combat operations. Corps ADA brigades have both SHORAD and high-to-medium altitude air defense (HIMAD) missile defense units to protect corps assets and reinforce divisional ADA units.

A-8. Air defense artillery units contribute to intelligence and information operations by gathering and disseminating information about the enemy air order of battle. They also contribute by denying the enemy the ability to operate his own reconnaissance and command and control (C2) aircraft. (FM 3-01 is the capstone ADA manual. FM 3-01.12 discusses Army theater missile defense.)

ARMOR

A-9. The tank is the primary offensive ground weapon in mounted warfare. Its firepower, protection from enemy fire, and speed create the shock effect necessary to disrupt or defeat the enemy. Tanks can destroy enemy armored vehicles, infantry, and antitank guided missile carriers. Tanks can break through suppressed defenses, exploit the success of an attack by striking deep into the enemy's rear area, and pursue defeated enemy forces. Armored units can also blunt enemy attacks and launch counterattacks as part of a defense.

A-10. The primary missions of cavalry units are reconnaissance and security. A cavalry unit's ability to find the enemy, develop the situation, and provide the commander with reaction time and security also makes it ideal for operating in an economy-of-force role. Cavalry forces can delay an attacking enemy and assist in a withdrawal. (There is no capstone manual for armor operations. Doctrine on heavy combined arms echelons is found in FMs 3-91.1, 3-91.2, 3-91.3, and 3-93. FM 3-20.95 addresses cavalry operations.)

AVIATION

A-11. The firepower, agility, and speed of Army aviation permit ground commanders to close with and defeat a wide range of enemy forces. Attack helicopters are ideally suited for rapid reaction during decisive, shaping, and sustaining operations where the terrain restricts or prohibits ground force occupation. Attack helicopters can influence the battle when ground forces are decisively engaged. The tactical mobility provided to airborne, air assault, and light infantry by assault aviation is limited by weather and lift asset availability.

A-12. Air cavalry platoons and troops can reconnoiter and maintain surveillance coverage over a much larger area in a shorter period of time than ground platoons and troops, but with less detail on ground features. During security operations, air cavalry reconnoiters, screens forward and to the flanks of ground forces, and acts as a rapid-reaction force. Scout helicopters provide a wide range of reconnaissance and security capabilities. Air cavalry scouts are essential in detecting and identifying enemy forces throughout the battlefield—an important source of real-time battlefield information. On-board radars and digital communications are key to the rapid dissemination

of combat information that these systems obtain. (FM 3-04.100 is the capstone manual for aviation doctrine.)

ENGINEERS

A-13. The commander task organizes combat engineer units with maneuver units and integrates them into a combined arms formation. The engineer unit provides demolition and breaching capabilities to the combined arms team. The engineer unit also can employ direct-fire weapon systems to aid in employing demolition and breaching assets. These breaching assets include assault bridges, rafts, and mechanized breaching systems. Regardless of the mission, armored engineer vehicles are combat vehicles and provide a significant contribution to the combat power of the entire formation. To accomplish the mission, engineers fire and move under the direction of the formation commander, as necessary, using engineer skills where appropriate. (FM 3-34 is the capstone engineer manual.)

A-14. When involved in an assault, engineers fight dismounted on the objective, focusing on breaching enemy close-in protective obstacles, as well as demolishing fighting positions and dug-in vehicles. Demolition charges produce significant shock and concussion effects on defenders, as well as destroying critical positions, munitions, and combat vehicles.

A-15. Combat engineers employed on reserve demolition targets in the defense mainly execute the technical procedures necessary to ensure target destruction. However, the engineer demolition party responds to enemy contact. They assist the demolition guard in securing the target by holding it open or gaining time to ensure that it is destroyed. The engineer force may assist in target defense by installing command-detonated mines to support the defensive scheme.

A-16. Combat-engineer units have a secondary mission to fight as infantry. While engineers fight continually as engineers, employing them as infantry requires serious considerations. Engineers employed as infantry require augmentation, including crew-served weapons and medical support. Any commander who owns engineers in a command relationship has the authority to employ them as infantry unless otherwise prohibited. A commander must carefully weigh the gain in infantry strength against the loss of engineer support. Engineers provide far more combat power in their primary mission than when configured as infantry. Stopping the engineer work may reduce the combat power of the commander's entire force. Because of the long-term impact, a commander notifies the next higher headquarters when he employs his engineers as infantry.

FIELD ARTILLERY

A-17. Field artillery (FA) is the commander's principal means for providing indirect-fire support to his maneuver forces. Self-propelled or towed FA units contain cannon or multiple rocket launchers. Field artillery can neutralize, suppress, or destroy enemy direct-fire forces, attack enemy artillery and mortars, and deliver scatterable mines to isolate and interdict enemy forces or protect friendly operations. The commander may use artillery fires to cover key terrain, flanks, obstacles, and dead space to reduce his risk when

maneuver forces are not available. Field artillery elements within maneuver organizations serve as the integrating center for all fire support elements. Field artillery units contribute both to attacking the enemy throughout the depth of his formations and suppressing enemy air defense systems to facilitate ground and air operations. Artillery fires can provide simultaneous precision strikes of targets at long ranges that other means cannot attack without significant risk. As mobile as the maneuver force it supports, FA systems provide continuous fires in support of the commander's scheme of maneuver. (FM 3-09 is the capstone FA manual.)

INFANTRY

A-18. There are many different types of infantry units, such as airborne, air assault, light, long-range reconnaissance, mechanized, and ranger. Each different type of infantry unit has its own unique skills and organizational design, but all share the common mission: "To close with and destroy the enemy by means of close combat, fire, and movement." Regardless of their mode of conveyance to the battlefield—aircraft, tracked or wheeled armored fighting vehicle, truck, or foot—they all serve as a key source of combat power in close combat. (There is not a capstone infantry manual. Echelon and unit specific manuals, such as FMs 3-21.7, 3-21.8, 3-21.10, 3-21.20, and 3-21.30, describe infantry operations at different tactical echelons.)

A-19. Airborne infantry units have the greatest capability for large-scale force-projection operations. They rapidly deploy over great distances and conduct combined arms parachute or air-landing assaults to seize and secure vital objectives. The commander can insert these units on virtually any objective area under almost any weather conditions. Once on the ground, their capabilities and lethality are similar to other nonmechanized infantry units.

A-20. Air assault infantry units have great tactical mobility and train to fight across the range of military operations. Their significant antiarmor capability—coupled with strategic deployability—makes them well suited as an early deploying force in contingency operations against heavy forces. They train and fight as a team in combination with artillery, attack, and lift aviation. They can penetrate deep into enemy territory to cut lines of communications, seize airfields, destroy C2 nodes, block reinforcing units, or seize key terrain. Because of their agility and mobility, air assault infantry units are well suited for covering force operations in appropriate terrain.

A-21. Light infantry units can operate effectively in most terrain and weather conditions. They may be the dominant arm in fast-breaking operations because of their rapid strategic deployability. In such cases, they can wrest the initiative early, seize and hold ground, and mass fires to stop the enemy. They are particularly effective in urban terrain, where they can infiltrate and move rapidly to the rear of enemy positions. The commander can enhance their tactical mobility by using helicopters and tactical airlift.

A-22. Mechanized and motorized infantry forces integrate mobile, survivable, and lethal, vehicle-mounted direct-fire and indirect-fire weapon systems and dismounted infantry skills into an effective fighting system that enhances the striking power of the combined arms force. Mechanized infantry has the same mobility as armor forces, but less firepower and protection. Armor and

mechanized infantry train and fight as a team to defeat enemy heavy forces. When equipped with infantry fighting vehicles, mechanized infantry can accompany tanks in mounted assaults. The commander must carefully determine if, when, and where his infantry must dismount to accomplish its mission. Mechanized infantrymen can act as fixing forces in an attack and serve as pivot points for maneuvering tank-heavy forces in the defense.

SPECIAL OPERATIONS FORCES

A-23. Special operations are actions conducted by specially organized, trained, and equipped personnel to achieve military, political, economic, or psychological objectives by nonconventional means in hostile, denied, or politically sensitive areas. They are conducted in peace, conflict, and war, independently or in coordination with operations of conventional forces. Politico-military considerations frequently shape special operations, requiring clandestine, covert, or low-visibility techniques and oversight at the national level. Special operations usually differ from conventional operations in their degree of risk, operational techniques, mode of employment, independence from friendly support, and dependence on operational intelligence and indigenous assets. (The Army's capstone manual on special operations is FM 3-05.)

A-24. Army SOA units are specialized aviation assets dedicated to conducting special operations missions. They provide a mix of short-, medium-, and long-range lift and light attack capabilities to support all principal and collateral mission areas and conduct autonomous special operations.

A-25. Ranger units are rapidly deployable, airborne-capable, and trained to conduct joint strike operations with or in support of special operations units of all services in any environment. They plan and conduct special military operations to support national policies and objectives. They also conduct direct-action missions to support conventional operations and operate as conventional light infantry units when integrated with other combined arms elements. (FM 3-21.85 is the capstone manual for ranger operations.)

A-26. Special Forces units plan, conduct, and support special operations activities in all operational environments, throughout the range of military operations. The US Army organizes, trains, and equips SF units to perform seven primary missions:

- Unconventional warfare.
- Foreign internal defense.
- Information operations.
- Counterproliferation.
- Direct action.
- Special reconnaissance.
- Combating terrorism.

Mission priorities vary from theater to theater. Special Forces missions are dynamic because politico-military considerations affect them directly. A change in national security policy or national military strategy may radically alter the nature of a SF mission. (FM 3-05.20 is the capstone SF manual.)

COMBAT SUPPORT

A-27. *Combat support* encompasses critical combat functions provided by units and soldiers, in conjunction with combat arms units and soldiers, to secure victory. Those functions include Army Aviation, Chemical Corps, Engineers, Military Intelligence, Military Police Corps, Signal Corps, and Special Operations Forces (CA and PSYOP units). Figure A-2 lists some CS units and their capabilities that support tactical operations.

<ul style="list-style-type: none"> ● AVIATION <ul style="list-style-type: none"> ▪ Air Traffic Services ▪ C2 Aircraft ● CHEMICAL CORPS <ul style="list-style-type: none"> ▪ Staff Support ▪ Decontamination ▪ NBC Reconnaissance & Surveillance ▪ Smoke & Obscuration ● ENGINEERS <ul style="list-style-type: none"> ▪ Mobility ▪ Countermobility ▪ Survivability ▪ Topographic Support ● SIGNAL CORPS <ul style="list-style-type: none"> ▪ Signal Support ▪ Combat Camera 	<ul style="list-style-type: none"> ● MILITARY INTELLIGENCE <ul style="list-style-type: none"> ▪ Counterintelligence ▪ Analysis ▪ HUMINT ▪ IMINT ▪ MASINT ▪ SIGINT ▪ TECHINT ▪ Electronic Warfare ● MILITARY POLICE CORPS <ul style="list-style-type: none"> ▪ Criminal Investigation ▪ EPW Support ▪ Military Police CS ● SPECIAL OPERATIONS FORCES <ul style="list-style-type: none"> ▪ Civil Affairs ▪ Psychological Operations
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Figure A-2. Combat Support Capabilities

AVIATION

A-28. Army aviation units provide CS to the commander in the following areas:

- C2, communications, and intelligence.
- Air movement of combat power.
- Aerial delivery of mines.
- Search and rescue.
- Air traffic services.

CHEMICAL CORPS

A-29. The chemical corps provides CS to the Army through two major activities. The first is chemical staff support organic from the battalion through the corps echelon. Integrating organizational equipment and individual technical expertise permits units to continue operations with minimal degradation of capability. The second activity is the support provided by chemical units at corps and higher levels, including nuclear, biological, and chemical (NBC) reconnaissance, decontamination, smoke and obscuration, and further staff augmentation. Both activities are critical; the former optimizes unit effectiveness under NBC conditions, the latter augments and reinforces unit combat

power and sustainability. (FM 3-11 is the capstone manual for chemical operations.)

ENGINEERS

A-30. Engineers multiply the effectiveness of friendly forces on a lethal battlefield. Four of the five primary engineer functions are CS. Combat engineers operate as an integral member of the combined arms team to provide a full range of mobility, countermobility, survivability, and topographic capabilities. Engineers advise the maneuver commander on the effective use of terrain; construct, improve, and maintain routes, bridges, and airfields; and reorganize to fight as infantry when required.

A-31. In offensive operations, combat engineers concentrate their efforts to support maneuver by breaching and crossing obstacles, assisting in the assault of fortified positions, and emplacing obstacles to protect the flanks of friendly attacking forces. In defensive operations, engineers reinforce the terrain to anchor the defense in critical areas, maximize the effects of defenders' fires, provide maximum protection to friendly fighting positions, and facilitate the movement of counterattack forces. Topographic engineer units furnish detailed terrain analysis products, maps, and digital terrain data. Topographic engineering products help the commander identify avenues and routes, obstacle locations, EAs, unit positions, and possible target areas.

MILITARY INTELLIGENCE

A-32. Military intelligence (MI) units provide the commander with early warnings of enemy intentions, intelligence preparation of the battlefield products, aid in the development of his situational understanding, and assist in target development, force protection, and battle damage assessment. They participate in offensive information operations, as well as provide critical counterintelligence support to friendly command force protection programs. (FM 2-0 is the capstone intelligence manual.)

A-33. Military intelligence involves four intelligence disciplines—human intelligence, imagery intelligence, measurement and signature intelligence, and signals intelligence. There are two multidiscipline intelligence functions—counterintelligence and technical intelligence. However, rarely will a single discipline or function produce a comprehensive picture of the enemy. Each of these disciplines and functions complement and cue each other. Each discipline or function produces bits and pieces of information that analysts use to create the enemy and environment portion of the common operational picture and other products that facilitate the commander's situational understanding. The commander should compare information gained by one discipline or function with information provided by the other disciplines and functions whenever the situation permits to avoid deception by enemy information operations. United States Code prohibits collecting intelligence information on US personnel or institutions by MI assets except under specific situations.

MILITARY POLICE CORPS

A-34. Military police units provide the commander with a versatile, responsive force capable of performing a wide range of combat, CS, and CSS missions that include—

- Maneuver and mobility operations—MP units enhance maneuver and mobility by expediting and monitoring the flow of personnel and materials throughout the depth and breadth of the battlefield.
- Area security operations—MP units provide security to critical personnel and facilities within their assigned AO because of their tactical mobility, firepower, and communications capabilities.
- Internment and resettlement operations—MP units conduct internment and resettlement operations for US military prisoners, enemy prisoners of war, and dislocated civilians to relieve the tactical commander of the burden they impose.
- Police intelligence operations—MP and MI units collect, analyze, and disseminate police intelligence, aiding commanders in identifying and defeating threats from criminals, saboteurs, and terrorists.
- Law and order operations—MP units assist the commander in maintaining law and order in both garrison and the field.

Military police units perform these operations independently or in combination with other units. United States Code prohibits MP and other Army units from performing routine law enforcement operations within US territory. State and federal law allow Army National Guard units to conduct law enforcement operations within their sponsoring state when performing their mission as state militia. (FM 3-19.1 is the capstone MP manual.)

SIGNAL CORPS

A-35. The signal corps provides worldwide information systems and networks for real-time C2 of Army, joint, and multinational forces. Signal corps units enable effective control systems to operate. In force-projection operations, signal units make split-based operations possible by employing satellite down-link equipment. (FM 6-02 is the capstone signal manual.)

SPECIAL OPERATIONS FORCES

A-36. Civil affairs units are organized, trained, and equipped specifically to conduct CA activities and to support civil-military operations. These operations focus on the civil center of gravity and establish, maintain, influence, and support the commander's moral obligations and legal responsibilities with government organizations, nongovernmental organizations, and international organizations. Civil Affairs activities include populace and resources control, foreign nation support, humanitarian assistance, military civil action, civil defense, civil assistance, and civil administration in recently liberated friendly territory and in occupied territory. Civil Affairs efforts enhance the relationships between military forces, civilian authorities, and populations in friendly, neutral, or hostile AOs through these activities. They provide opportunities to use local human and material resources to support the assigned mission. Civil Affairs forces facilitate military operations by reducing civilian interference with military operations and gaining popular understanding, support, and compliance with measures required to accomplish the mission. In the aftermath of combat, CA units conduct activities that stabilize disrupted areas. They are often tasked to create a military government to temporary control institutions, populations, and resources. Civil Affairs functional specialist's capabilities reside in the reserve component and are additional

areas of expertise, normally acquired through civilian education, training, and experience. These special functions teams include—

- Emergency services
- Public administration
- Public education
- Public health
- Public safety
- Public welfare
- Civilian supply
- Economic development
- Food and agriculture
- Public communications
- Public transportation
- Public works and utilities
- Civil information
- Cultural relations
- Dislocated civilians
- International law
- Environmental management

(FM 3-57 is the capstone manual for civil affairs operations.)

A-37. Psychological operations are planned operations to convey selected information and indicators to foreign audiences to influence their emotions, motives, objective reasoning, and ultimately the behavior of foreign governments, organizations, groups, and individuals. The purpose of psychological operations is to induce or reinforce foreign attitudes and behavior favorable to the originator's objectives (JP 3-53). PSYOP is a functional area and not a branch. PSYOP units provide the commander with the ability to communicate information to non-US audiences via radio, television, leaflets, and loudspeakers. The PSYOP soldier's language skills, regional orientation, and knowledge of communication media provide a means of delivering critical information to host nation, neutral, and enemy audiences. Joint direction from the operational-level commander characterizes PSYOP. Federal law prohibits using PSYOP against US citizens or organizations. (FM 3-05.30 is the capstone PSYOP manual.)

COMBAT SERVICE SUPPORT

A-38. The primary role of Army tactical CSS units is to sustain Army forces. The CSS effort is successful only when it concentrates and supports forces by focusing on the sustainment and reconstitution of tactical units. Warfare consumes massive amounts of resources. The CSS system must provide resources in a way that minimizes constraints on the commander. Tactical-level CSS support must be responsive. (Figure A-3 on page A-12 illustrates CSS branch capabilities.)

A-39. While not traditional Army branches, forward elements of the US Army Materiel Command (USAMC) and the Military Traffic Management Command within a theater of operations assist in providing that combat service

support necessary to sustain tactical forces. These forward elements provide logistic assistance, conduct port operations, sustainment at Army field support centers, control Army prepositioned stocks, and manage USAMC contract support. Those forward commands or subordinate logistics support elements deploy to support operations. Logistics assistance personnel, who are part of USAMC forward elements, deploy with major combat units. They assist and advise the unit; they also can reach back to the continental United State for required additional augmentation of sustainment capabilities.

<ul style="list-style-type: none"> ● ADJUTANT GENERAL <ul style="list-style-type: none"> ▪ Personnel Services ▪ Postal ▪ Replacement ● AVIATION (GS AVN) ● CHAPLAIN ● ENGINEERS (GEN ENG) ● FINANCE CORPS <ul style="list-style-type: none"> ▪ Support To Local Procurement ▪ Pay Services ▪ Resource Management ● JUDGE ADVOCATE GENERAL CORPS <ul style="list-style-type: none"> ▪ Court Martial Trial & Defense ▪ Legal Assistance ▪ Contract Advisory Assistance 	<ul style="list-style-type: none"> ● MEDICAL <ul style="list-style-type: none"> ▪ Combat Stress ▪ Dental ▪ Hospital ▪ Medical Evacuation/Support/ Surveillance ▪ Veterinary ● ORDNANCE CORPS <ul style="list-style-type: none"> ▪ Ammunition Maintenance ▪ Ammunition Supply ▪ Electronic Maintenance ▪ Explosive Ordnance Disposal ▪ Mechanical Maintenance ▪ Missile Maintenance ● QUARTERMASTER CORPS <ul style="list-style-type: none"> ▪ Supply & Field Services ● TRANSPORTATION CORPS <ul style="list-style-type: none"> ▪ Highway/Rail/Water Transportation ▪ Movement Control ▪ Intermodal (Terminal) Operations
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Figure A-3. Combat Service Support Capabilities

ADJUTANT GENERAL CORPS

A-40. The Adjutant General Corps helps to build and sustain combat readiness through planning, operating, and managing all human resources support activities. Human resources support functions include manning the force; personnel services; personnel readiness management; personnel accounting; replacement management; personnel information management; casualty operations management; postal operations management; morale, welfare, and recreation; and band support. (FM 1-0 is the capstone manual for military personnel activities.)

AVIATION

A-41. Aviation units provide CSS to sustain combat forces, primarily through air movement of personnel, supplies, and equipment and performing aero-medical evacuation and aviation maintenance. Air movement CSS missions include the aerial movement of personnel and supplies, to include—

- Over-the-shore logistics operations.
- Aerial preplanned and immediate resupply.
- Air movement of critically short or sensitive supplies.

- Pre-positioning and movement of fuel and ammunition.
- Air movement of security forces.
- Medical evacuation.

CHAPLAIN CORPS

A-42. The chaplain corps advises the commander on matters of religion, morals, and morale as affected by religion; to include the impact of indigenous religions on the mission. The role of the chaplain is the personal delivery of religious support—worship care and counseling—to the soldier. Chaplains assist in reducing the rate and severity of psychiatric casualties by working with combat stress teams. (FM 1-05 is the capstone doctrinal manual for chaplains and chaplain assistants.)

FINANCE CORPS

A-43. Financial management operation provides a commander with—

- Financial support for soliders.
- Financial support for non-US military personnel and all Department of Defense civilians.
- Pay for local hire civilians.
- Contract support.
- Payments to commercial vendors that provide services and supplies in support of military forces on an immediate or recurring basis.
- Disbursements of public funds to support an Army presence on an area-support basis.
- Accounting and disclosing expended funds.

(FM 1-06 is the capstone doctrinal manual for financial management support.)

ENGINEERS

A-44. Sustainment engineering is the primary CSS engineer function. It involves a variety of roles, such as civil engineering, fire fighting, maintaining lines of communications, managing inland waterways, prime power, and environmental protection.

MEDICAL CORPS

A-45. The Army's health care team provides all types of medical support to the commander and his soldiers. The Army's health care team comprises six medical corps: Medical Corps, Dental Corps, Medical Service Corps, Nurse Corps, Veterinary Corps, and Medical Specialist Corps. (FM 4-02, is the capstone doctrinal manual for health service support.)

A-46. Ordnance units sustain the commander's weapon systems, ammunition, missiles, and ground-mobility materiel. Ordnance soldiers are trained to repair and manage tank-automotive/ground-mobility materiel, missile materiel, and ammunition materiel, including explosive ordnance disposal. (There is no capstone manual addressing all the activities of the ordnance corps, but FM 4-0 provides references and information on ordnance support.)

A-47. Future maintenance concepts call for the consolidation of the current four levels of maintenance into two levels—field and sustainment. Field maintenance combines the current organizational and direct support levels of maintenance. Field maintenance includes those tasks performed by operators and maintainers at the point of breakdown or the point of repair. This maintenance level focuses on the repair of vehicles through the replacement of major system components. Sustainment maintenance consists of tasks normally focused on the repair of component items, and it combines the current general support and depot maintenance levels. Additionally, it includes some current direct support-level tasks. At this level of maintenance, maintainers focus on the repair of component items, such as major assemblies, line-replaceable units, and reparable items and their return to the distribution system.

ORDNANCE CORPS

A-48. Ordnance units sustain the commander's weapon systems, ammunition, missiles, and ground-mobility materiel. Ordnance soldiers are trained to repair and manage tank-automotive/ground-mobility materiel, missile materiel, and ammunition materiel, including explosive ordnance disposal. There is no capstone manual addressing all the activities of the ordnance corps, but FM 4-0 provides references and information on ordnance support.

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QUARTERMASTER CORPS

A-50. The quartermaster corps arranges for or provides supplies, materiel management, distribution, procurement, and field services to support and sustain soldiers, units and their equipment. These support functions are broken down into two areas: supply and field services. Supplies provided by quartermaster units include—

- Class I—substance and commercial bottled water.
- Class II—clothing, individual equipment, tentage, tool sets, and administrative and housekeeping supplies equipment including nonclassified maps.
- Class III—petroleum, oils, and lubricants (POL), including petroleum fuels, lubricants, hydraulic and insulating oils, preservatives, liquid and compressed gases, chemical products, and coolants.

- Class IV—construction materials, including installed equipment and all fortification and barrier materials.
- Class VI—health and comfort packs/support to tactical field exchanges.
- Class VII—major end items
- Class IX—repair parts
- Class X—miscellaneous supplies

A-51. Field services provided by the quartermaster corps includes—

- Airdrop—parachute packing, air-item maintenance, slingload operations, and rigging of supplies and equipment for airdrop.
- Field feeding—the standard is three quality meals each day, with the capability to distribute, prepare, and serve at least one heated unitized group rations, with semi-perishable components (UGR-A), meal per day to include supplements in accordance with the factors of METT-TC.
- Laundry—soldiers will each be provided with up to 15 pounds of laundry support a week.
- Shower—the army standard is one shower per soldier per week, with a goal of two showers per week.
- Water purification. (Note that storage and distribution of purified water are supply functions.)
- Mortuary affairs—recovery, tentative identification, and processing of human remains.
- Clothing and light textile repair—minor repairs made at the laundry.

(FM 4-20 is the capstone manual for quartermaster units.)

TRANSPORTATION CORPS

A-52. The transportation corps provides transportation services to the commander. These services include—

- Performing transportation unit operations, to include truck, boat, rail and trailer/cargo transfer operations. Planning, scheduling, and supervising the use of each mode of transportation for effectively moving personnel and cargo.
- Providing terminal services for all modes of transportation and stevedoring services at fixed ports and unimproved beach sites.
- Providing transportation engineering services.
- Providing direct maintenance and supply for marine and rail equipment.

(FM 4-01 is the capstone doctrinal manual for the transportation corps.)

TACTICAL ECHELONS

A-53. The Army echelons its broad array of capabilities to perform diverse functions. These functions vary with the type of unit and, particularly at operational echelons, with the organization of the theater, the nature of the conflict, and the number of friendly forces committed to the effort. For a discussion of operational echelons, including ARFOR, joint force land component, and joint task force (JTF) see FMs 3-0 and 3-93.

A-54. At each echelon, the commander task organizes his available capabilities to accomplish the mission. The commander's purpose in task organization is to maximize subordinate commanders' abilities to generate a combined arms effect consistent with the concept of operations. Commanders and staffs work to ensure the distribution of capabilities to the appropriate components of the force to weight the decisive operation. The relationships between units within and supporting an echelon are described in terms of command and support relationships. (See FM 5-0 for a discussion of these relationships.)

COMPANIES, BATTERIES, AND TROOPS

A-55. **A company is a unit consisting of two or more platoons, usually of the same type, with a headquarters and a limited capacity for self-support. A troop is a company-size unit in a cavalry organization. A battery is a company-size unit in a field artillery or air defense artillery organization.** A company normally consists of more than 75 soldiers. Exceptions to this rule are some aviation and tank companies. Companies and air defense and artillery batteries are the basic elements of battalions. Armored, light, and air cavalry troops are the basic elements of squadrons. Companies, batteries, and troops may also be assigned as separate units of brigades and larger organizations. Some companies, such as SF companies, have subordinate detachments, instead of platoons, which are organized and trained to operate independently for extended periods.

A-56. Company-size combat units can fight in mass or by subordinate platoons. In attack helicopter battalions, companies fight as integral units. Cavalry troops fight more frequently with their platoons in separate areas. In infantry and armor battalions, companies fight either as integral units or as task-organized teams reinforced with close-combat platoons of the same or different types. **A company team is a combined arms organization formed by attaching one or more nonorganic tank, mechanized infantry, or light infantry platoons to a tank, mechanized infantry, or light infantry company, either in exchange for, or in addition to, its organic platoons.** These company teams can include other supporting squads or platoons, such as short-range air defense (SHORAD) and ground surveillance radar teams. Company teams are task-organized for a specific mission. Such teams can match capabilities to missions with greater precision. However, the attachment of different units at the company level demands thorough training to achieve the maximum complementary effects. Whenever possible, platoons and detachments should train together before they are committed.

A-57. FA batteries are the basic firing units of FA battalions. They are organized with firing platoons, a headquarters, and limited support sections. They may fire and displace together or by platoons. Normally, batteries fight as part of their parent battalions, but the commander can attach them to other batteries or FA battalions. In rare cases they respond directly to a maneuver battalion or company. Multiple Launch Rocket System (MLRS) batteries usually operate independently. Regimental armored cavalry squadrons have organic howitzer batteries.

A-58. ADA batteries operate as the fighting elements of ADA battalions or, if they are SHORAD batteries, in direct support of maneuver brigades or

battalions. Separate SHORAD batteries exist in separate brigade-size organizations.

A-59. Combat engineer companies control three or four engineer platoons. Their parent battalion may employ them in a variety of tasks, or they may support maneuver brigades or battalions.

A-60. Most CS and CSS units organize as separate companies with greater self-sustainment capabilities than normally found in comparable size combat arms organizations. However, they may receive unit-level sustainment support on an area basis. Such CS and CSS companies vary widely in size, employment, and assignment.

BATTALIONS AND SQUADRONS

A-61. **A battalion (or a cavalry squadron) is a unit consisting of two or more company-, battery-, or troop-size units and a headquarters.** Most combat arms battalions are organized by branch, arm, or service and, in addition to their line companies, contain a headquarters company that gives them the ability to perform some administrative and logistic services. Typically, battalions have three to five companies in addition to their headquarters.

A-62. The commander can reinforce his maneuver battalions with other combat and CS companies to form task forces for special missions. **A battalion task force is a combat arms battalion-size unit consisting of a battalion headquarters, at least one assigned company-size element, and at least one attached company-size element from another combat arms or combat support unit.** Task organization increases the capability of maneuver battalions. For example, based on a brigade commander's understanding of the factors of METT-TC, he may task-organize tank, mechanized infantry, and light infantry battalions by cross-attaching companies between these units. (See Figure A-4.) FA battalions can be reinforced with batteries of any kind to form artillery task forces. The commander can reinforce engineer battalions with the same or different types of engineer companies and platoons to form engineer task forces.

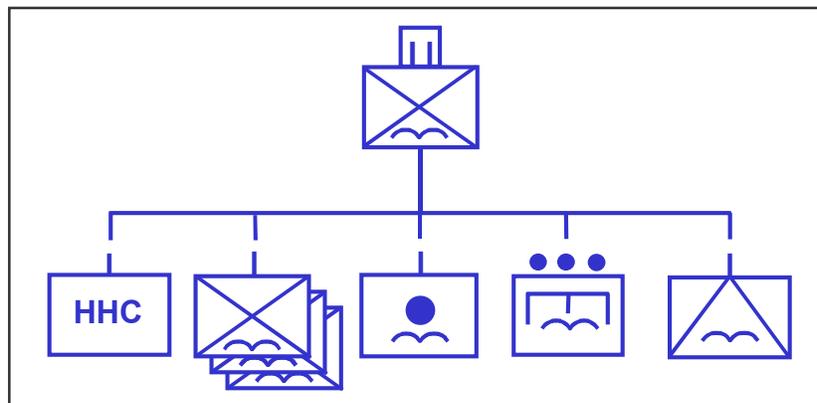


Figure A-4. Airborne Battalion-Size Task Force

A-63. CS and CSS battalions vary widely in type and organization. They may be separate divisional or nondivisional battalions, performing functional services for a larger supported unit within that unit's AO. All battalions are capable of short-term limited, self-defense. ADA and signal battalions assigned to or supporting divisions routinely operate throughout the division AO. Their commanders also perform the additional duties of division special staff officers.

BRIGADES, REGIMENTS, AND GROUPS

A-64. A **brigade** is a unit consisting of two or more battalions and a **headquarters**. Its capacity for independent action varies by type. A commander can use separate infantry, armor, FA, ADA, engineer, and aviation brigades and armored cavalry regiments to reinforce corps or divisions and shift these units from one division or corps to another to tailor forces for combat. (See Figure A-5.)

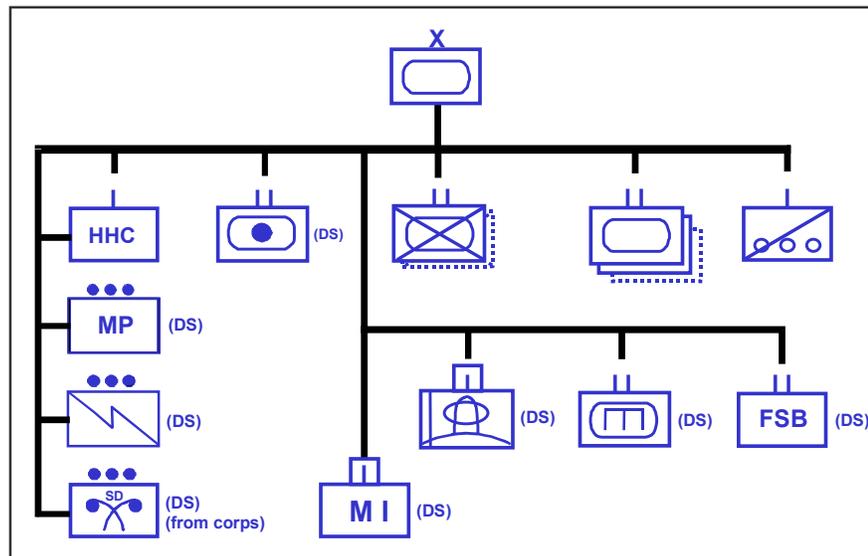


Figure A-5. Heavy Brigade Combat Team

A-65. Maneuver brigades are the major combat units of divisions; they can employ any combination of maneuver battalions. Division commanders adjust the organization of their brigades and change their task organization into brigade combat teams as required by the factors of METT-TC. A **brigade combat team** is a semipermanent combined arms organization consisting of a brigade headquarters, at least two combat arms battalions, and all necessary supporting combat support and combat service support, formed for the purpose of carrying out a continuing specific task. They normally include a direct support FA battalion, a combat engineer battalion (in heavy divisions and heavy separate brigades), forward support battalions, and smaller combat, CS, and CSS units. Brigades combine the efforts of their battalions and companies to fight engagements and battles and perform tactical tasks within division-level battles and engagements. Their

chief tactical responsibility is synchronizing the plans and actions of their subordinate units to accomplish tasks for the division or corps.

A-66. Separate maneuver brigades and armored cavalry regiments have a fixed organization with organic cavalry, engineer, air defense, FA, MI, chemical, and CSS units. The commander can use separate brigades and armored cavalry regiments to reinforce corps or divisions, but they are capable of operating as independent units. The two initial brigade combat teams (IBCTs) at Fort Lewis, Washington, are organized as separate brigades even though they are designated as divisional brigades. (See Figure A-6.)

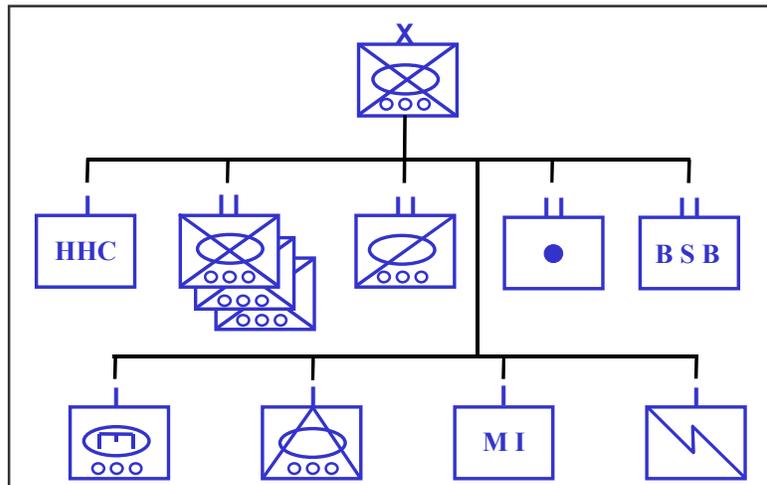


Figure A-6. IBCT Organization

A-67. The commander organizes other combat, CS, and CSS brigades and groups to control capabilities for divisions, corps, and larger units. Engineer, ADA, signal, aviation, MP, and transportation brigades are typical of such units. They may also be the building blocks of large-unit support structures, such as corps and theater army support commands, and CS commands, such as engineer commands. When the span of control for a brigade exceeds seven battalion-size subordinate units, the commander can establish a group headquarters under the brigade as an intermediate headquarters for two or more CS and CSS battalions. Organic, brigade-size division artillery (DIVARTY), an aviation brigade, and a division support command (DISCOM) of CSS battalions and separate companies provide support for divisions. Heavy divisions have an organic engineer brigade.

DIVISION

A-68. The division possesses great flexibility. **Divisions are the largest fixed organizations in the Army that train and fight as tactical teams, and are organized with varying numbers and types of combat, CS, and CSS units.** Their commanders task organize their organic brigades and attached forces for specific combat missions. The division commander may attach or place any or all divisional CS and CSS battalions and separate companies in support of one or more brigades for particular missions. (Figure A-7 on page A-20 depicts a heavy division's organic elements.) They are

capable of performing any tactical mission over a wide range of environments and are largely self-sustaining for up to 72 hours. The Army's division organizational concept embraces six types of divisions—armored, mechanized infantry, medium, light infantry, airborne and air assault—with each having specific capabilities and resources for conducting military operations. The Army continues to examine its divisional design to ensure it possesses forces that are decisive across the full spectrum of operations. The Army is currently experimenting with Force XXI and Interim Division variants in a search for designs that have greater strategic responsiveness and effectiveness.

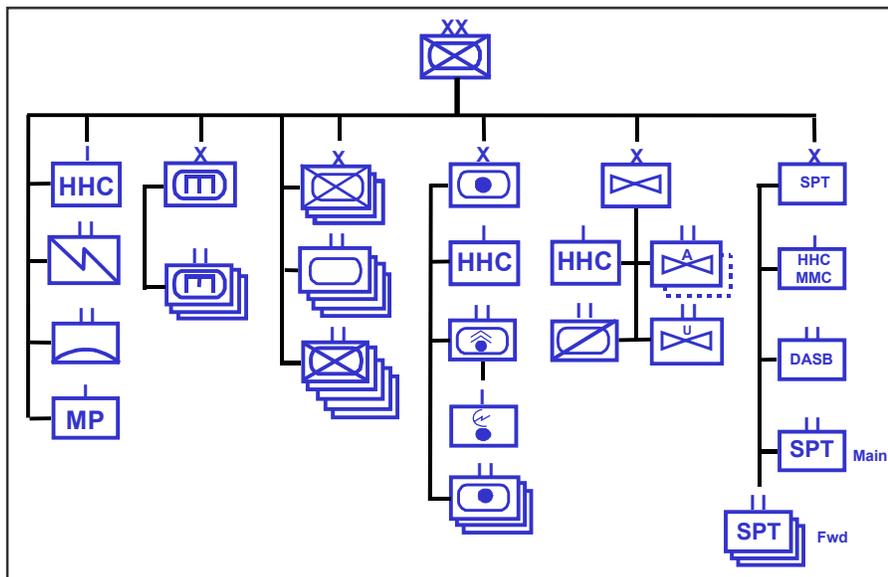


Figure A-7. Heavy Division

A-69. Divisions perform major tactical operations for the corps and conduct sustained engagements. With significant augmentation, a corps or a numbered army may direct a division to perform tasks of operational importance. These may include exploiting tactical advantages to seize objectives in depth, moving to gain contact with enemy forces, or moving by air to seize positions behind an enemy force.

A-70. Critical division roles include—

- Deployment.
- Conduct of full spectrum operations as part of a corps.
- Airborne and air assault divisions able to conduct force entry operations.

With augmentation a division headquarters can perform as the ARFOR or joint force land component headquarters. (FM 3-91 describes how divisions conduct full spectrum operations.)

CORPS

A-71. **The corps is the Army's largest tactical unit and the instrument by which higher echelons of command conduct maneuver at the operational level.** There is no standard organizational structure for a corps,

although every corps typically has the components shown in Figure A-8. Operational headquarters tailor corps to the theater and mission for which they are deployed. Once tailored a corps contains all the combat, CS, and CSS capabilities required to sustain its operations for an extended period.

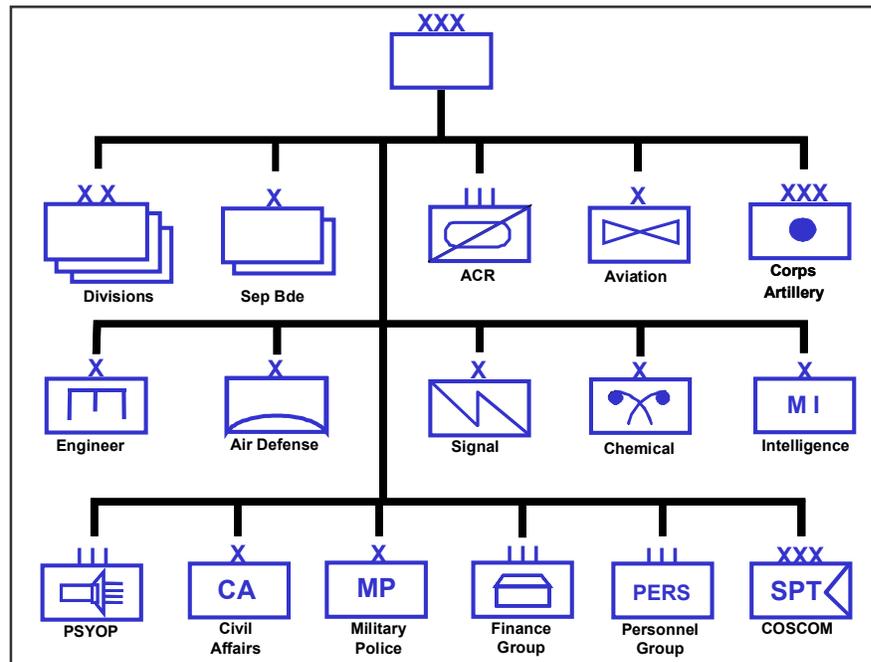


Figure A-8. Representative Corps Organizational Diagram

A-72. A corps is normally tailored to comprise two to five divisions of any type and combination required by the theater and the mission. It possesses organic support commands and is assigned combat and CS organizations based on its needs for a specific operation. Armored cavalry regiments and FA, engineer, ADA, and aviation brigades are the nondivisional units commonly available to the corps to weight its decisive operation and to perform special combat functions. The commander may also assign separate infantry or armor brigades to corps. Signal brigades, MI groups, and MP groups are the CS organizations normally present in a corps.

A-73. A corps plans and conducts battles and major operations. Corps operations are combined arms operations that synchronize tactical activities, including the maneuver of divisions, the fires of artillery units and supporting aerial forces, and the actions of CS and CSS units. A corps may operate under the control of a higher echelon, such as a numbered army. Its headquarters may provide the headquarters for a land component command of a unified or subunified command or JTF. The corps headquarters could also be employed as the ARFOR headquarters of a JTF. A corps commander may serve as a JTF commander. A corps normally exercises a mixture of operational and tactical responsibilities. It may have a key role in translating strategic and operational objectives of higher echelons into the specific and detailed tactics used to achieve those objectives.

A-74. Critical corps roles in the planning, preparing, executing, and assessing full spectrum operations include—

- Planning, preparing, and executing operations with other elements of the joint force to achieve campaign objectives, including force projection of corps units to the AO.
- Integrating available joint, interagency, and multinational assets in support of sustained land operations, including intelligence, target acquisition, target attack, electronic warfare, suppression of enemy air defenses, and CSS.
- Collecting intelligence, and anticipating enemy activities and intentions.
- Providing the information pipelines over which the corps distributes the common operational picture to all corps units.
- Planning, preparing, executing, and assessing shaping and sustaining operations by corps troops that support the corps decisive operations.

With augmentation a corps headquarters can perform as an ARFOR, joint force land component, or JTF headquarters. (FM 3-92 describes how corps conduct full spectrum operations.)

Appendix B

Tactical Mission Tasks

Doctrine provides a military organization with a common philosophy, a common language, a common purpose, and a unity of effort.

General George H. Decker, address at Fort Leavenworth, 16 Dec 1960

The tactical mission tasks in this appendix describe the results or effects the commander wants to achieve—the *what* and *why* of a mission statement not previously addressed in this manual. A mission statement contains the *who*, *what*, *when*, *where*, and *why* associated with a specific operation. The *what* and *why* of a mission statement are not the same thing and both are needed. The *what* is an effect that is normally measurable. The *why* of a mission statement provides the mission’s purpose or reason. These tasks have specific military definitions that are different from those found in a dictionary. In some cases, the discussion includes more than just a definition; it includes results or effects in relation to the enemy, terrain, or friendly forces not associated with any specific type or form of an operation. Tasks that identify a friendly action rarely provide sufficient clarity for a mission statement.

B-1. As shown in [Figure B-1](#), there is no definitive list of words or terms to describe the *what* and the *why* of a mission statement. The commander is not limited to the tactical mission tasks listed in this appendix in specifying what actions he wants from his subordinates in an OPORD or OPLAN. Many of the words and terms used to describe the *what* and *why* of a mission statement do not have special connotations beyond their common English

CONTENTS			
Actions by Friendly Force	B-3	Seize	B-12
Attack-by-Fire	B-3	Support-by-Fire	B-12
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Clear	B-6	Canalize	B-14
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Disengage	B-7	Destroy	B-15
Exfiltrate	B-8	Disrupt	B-16
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Follow and Support	B-9	Interdict	B-17
Occupy	B-10	Isolate	B-18
Reduce	B-11	Neutralize	B-19
Retain	B-11	Suppress	B-19
Secure	B-11	Turn	B-19

language meanings. However, both the commander and the subordinate must have a common understanding of the *what* and *why* of the operation. It should be noted that tasks involving only actions by friendly forces rarely provide sufficient clarity for a mission statement thus the addition of a solid purpose coupled with the task adds understanding and clarity. The commander ensures that the missions he assigns his subordinate units are consistent with his scheme of maneuver and the resources allocated to his subordinates. For example, a defending unit requires far greater effort (resources) to destroy an enemy force than to defeat it. Likewise, an attacking unit requires more combat power to clear the enemy from a given area than to contain him in that same area.

B-2. Many of the tactical mission tasks in this appendix have a tactical mission graphic associated with them. Tacticians use these graphics in conjunction with course of action development.

ACTIONS BY FRIENDLY FORCE		EFFECTS ON ENEMY FORCE
Assault*	Follow and Assume	Block
Attack-by-Fire	Follow and Support	Canalize
Breach	Linkup*	Contain
Bypass	Occupy	Defeat
Clear	Reconstitution**	Destroy
Combat Search and Rescue	Reduce	Disrupt
Consolidation & Reorganization*	Retain	Fix
Control	Secure	Interdict
Counterreconnaissance	Seize	Isolate
Disengagement	Support-by-Fire	Neutralize
Exfiltrate	Suppress	Penetrate
		Turn
TYPES AND FORMS OF OPERATIONS		
MOVEMENT TO CONTACT*	RETROGRADE OPERATIONS*	
Search and Attack*	Delay*	
ATTACK*	Withdrawal*	
Ambush*	Retirement	
Demonstration*	RECONNAISSANCE OPERATIONS**	
Feint*	SECURITY OPERATIONS*	
Raid*	INFORMATION OPERATIONS**	
Spoiling Attack*	COMBINED ARMS BREACH OPERATIONS**	
EXPLOITATION*	PASSAGE OF LINES*	
PURSUIT*	RELIEF IN PLACE*	
FORMS OF OFFENSIVE MANEUVER*	RIVER CROSSING OPERATIONS**	
Envelopment*	TROOP MOVEMENT*	
Frontal Attack*	Administrative Movement*	
Infiltration*	Approach March*	
Penetration*	Road March*	
Turning Movement*		
AREA DEFENSE*		
MOBILE DEFENSE**		

*Defined elsewhere in this manual

**Defined in other manuals

Figure B-1. Tactical Mission Tasks

ACTIONS BY FRIENDLY FORCE

ATTACK-BY-FIRE

B-3. *Attack-by-fire* is a tactical mission task in which a commander uses direct fires, supported by indirect fires, to engage an enemy without closing with him to destroy, suppress, fix, or deceive him. A commander assigning this task to a subordinate must also state the desired effect on the enemy, such as neutralize, fix, or disrupt. A commander normally employs this task when the mission does not dictate or support close combat and occupation of a geographical objective by another friendly force. The commander may assign the force conducting an attack by fire a battle position with either a sector of fire or an engagement area (EA), or he may assign it an axis of advance and a force-oriented objective. The enemy may be stationary or moving. Figure B-2 shows the tactical mission graphic for attack by fire. The arrow points at the targeted force or objective, and the commander places the base of the arrow in the general area from which he wants to deliver the attack.

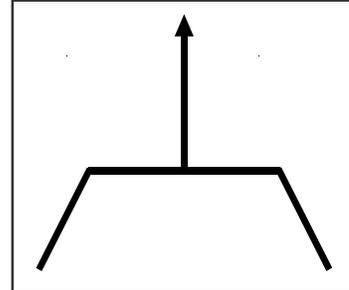


Figure B-2. Attack-by-Fire Tactical Mission Graphic

B-4. An attack by fire closely resembles the task of support by fire. The chief difference is that one unit conducts the support-by-fire task to support another unit so it can maneuver against the enemy. The attack by fire task includes—

- Assigning sectors of fire or EAs to each subordinate weapon system to include the enemy's defensive positions or avenues of approach.
- Designating control measures to allow massing, distributing, and shifting of direct and indirect fires.
- Designating battle positions, area of operations (AO), or axis of advance to allow the friendly force to engage the enemy.
- Providing for security and all-around defense, including control measures to ensure tie-in of subordinate elements and maximum use of hide positions.
- OPSEC to deceive the enemy about movement, occupation, and intent of the operation.
- Reconnaissance, preparing and securing movement routes and firing positions before the movement of the main body, and stocking Class V items.
- Movement instructions to the initial battle positions.

BREACH

B-5. *Breach* is a tactical mission task in which the unit employs all available means to break through or secure a passage through an enemy defense, obstacle, minefield, or fortification. A commander attempts to bypass and avoid obstacles and enemy defensive positions to the maximum extent possible to maintain tempo and momentum. Breaching enemy defenses and obstacle systems is normally his last choice. When they occur, they are a synchronized combined arms operation under the control of

the maneuver commander. (Figure B-3 shows the control graphic for a breach.) The area located between the arms of the graphic shows the general location for the breach. The length of the arms extend to include the entire depth of the area that must be breached. Breaching operations may be required to support an attack anywhere along the continuum from deliberate to hasty attack. Regardless of where the attack falls along the continuum, the breaching tenets—intelligence, breaching fundamentals, breaching organization, mass, and synchronization—apply when conducting breaching operations in support of an attack. (FM 3-34.2 gives detailed information concerning breaching operations.)

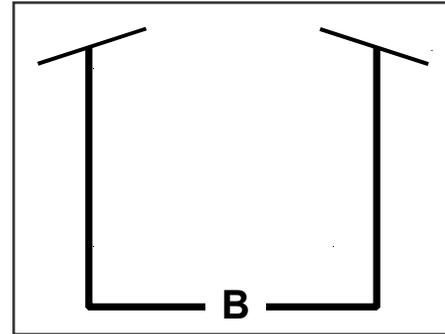


Figure B-3. Breach Tactical Mission Graphic

BYPASS

B-6. Bypass is a tactical mission task in which the commander directs his unit to maneuver around an obstacle, position, or enemy force to maintain the momentum of the operation while deliberately avoiding combat with an enemy force. A commander orders a bypass and directs combat power toward mission accomplishment. A bypass can take place in offensive or defensive actions. (Figure B-4 shows the tactical mission graphic for a bypass.) The arms of the graphic go on both sides of the location or unit that will be bypassed.

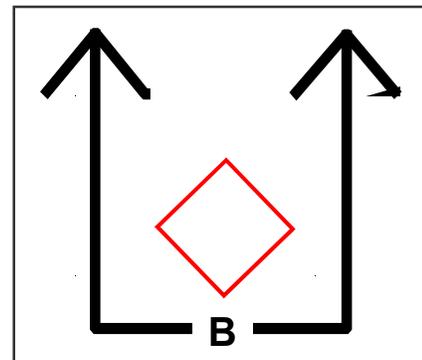


Figure B-4. Bypass Tactical Mission Graphic

B-7. The commander bases his bypass decision on—

- The requirement to maintain momentum and aggressive action.
- Knowledge of enemy strength, intent, or mission.
- The degree to which the bypassed enemy can interfere with the advance.
- The general state of the enemy force; for example, if enemy resistance is crumbling, the friendly force can take greater risks.
- Any bypass criteria established by a higher headquarters.

B-8. The force conducting the bypass immediately reports any bypassed obstacles and enemy forces to its higher headquarters. The force normally keeps the bypassed enemy under observation until relieved by another force unless as part of a raid. A senior commander does not normally delegate authority to bypass below the battalion task force level. He establishes bypass criteria to limit the size of the enemy force that can be bypassed without the authority of the next higher commander. Before approving the bypass, the commander

ensures that the bypassing force checks the bypass route for enemy presence and trafficability. At no time can the bypassing force allow the bypassed enemy force to interfere with the moving friendly force.

B-9. The two bypass techniques that the force can employ are—

- Avoiding the enemy totally.
- Fixing the enemy in place with fires and then conducting the bypass.

B-10. If the force cannot avoid the enemy, the bypassing force must fix the enemy with part of its maneuver elements and bypass with the balance of the force. (See Figure B-5.) Generally, a commander will not attempt to bypass an enemy force if more than a third of his combat power is required to fix the enemy. The commander assigns one subordinate unit the mission of fixing the enemy in this situation, reinforcing the fixing force as required by the factors of METT-TC. The fixing force coordinates with the unit assigned to relieve him as soon as possible and provides the new commander with all available information about the enemy and terrain. The relieving unit is normally another unit assigned a follow-and-support task. Once relieved, the force fixing the enemy either rejoins its parent organization or becomes part of the following element and comes under its control.

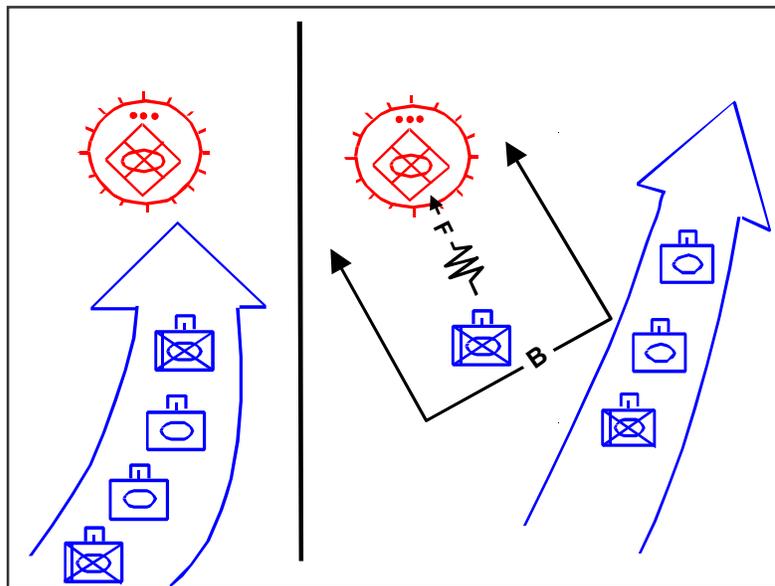


Figure B-5. Task Force Conducting a Fix and a Bypass

B-11. Occasionally the commander may direct the fixing force to break contact with the enemy after the bypassing force completes the bypass. This occurs when the bypassing force has no requirement to maintain an uninterrupted logistics flow, such as in a raid. In this case, the fixing force fixes the enemy by employing defensive and limited offensive actions in synchronization with all available fire support until ordered to rejoin the bypassing force.

CLEAR

B-12. **Clear** is a tactical mission task that requires the commander to remove all enemy forces and eliminate organized resistance within an assigned area. The force does this by destroying, capturing, or forcing the withdrawal of enemy forces so they cannot interfere with the friendly unit's mission. In all cases, this task requires a thorough reconnaissance to discover the enemy's locations. After discovering the location, the clearing force maneuvers against the enemy force. (Figure B-6 shows the tactical mission graphic for clear.)

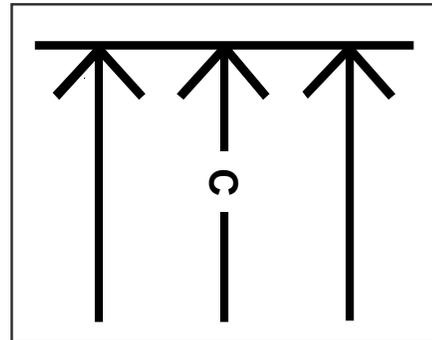


Figure B-6. Clear Tactical Mission Graphic

The bar connecting the arrows designates the desired limit of advance for the clearing force. The bar also establishes the width of the area to clear.

B-13. This task requires significant time and other resources. In his mission statement, a commander can modify the objective associated with this task to destroying, capturing, or forcing the withdrawal of only enemy forces larger than a stated size. In this case, the clearing force keeps smaller enemy forces under observation while the rest of the friendly force bypasses them.

CONTROL

B-14. **Control** is a tactical mission task that requires the commander to maintain physical influence over a specified area to prevent its use by an enemy or to create conditions necessary for successful friendly operations. That influence can result from friendly forces occupying the specified area or dominating that area by their weapon systems. Control of an area does not require the complete clearance of all enemy soldiers from the specified area. The tactical mission task of control differs from that of secure because secure does not allow enemy fires to impact on the secured area. The enemy can engage targets within the controlled area but cannot move his ground forces through that area.

B-15. Control may also mean a command relationship or a function commanders exercise through their C2 system. (See FMs 3-0, 3-52, and 6-0.)

COUNTERRECONNAISSANCE

B-16. **Counterreconnaissance** is a tactical mission task that encompasses all measures taken by a commander to counter enemy reconnaissance and surveillance efforts. Counterreconnaissance is not a distinct mission, but a component of all forms of security operations. It prevents hostile observation of a force or area. Counterreconnaissance is an element of all security operations and most local security measures. It involves both active and passive elements and includes combat action to destroy or repel enemy reconnaissance units and surveillance assets.

B-17. Destroying enemy ground reconnaissance assets while denying the enemy information through other collection systems allows friendly force

commanders to operate against an enemy who is operating blindly. The enemy commander's inability to see the battlefield eventually desynchronizes his actions and renders his command vulnerable to aggressive action by friendly forces. (See [Chapter 12](#) for additional information on counterreconnaissance.)

DISENGAGE

B-18. ***Disengage*** is a tactical mission task where a commander has his unit break contact with the enemy to allow the conduct of another mission or to avoid decisive engagement. It involves moving to a location where the enemy cannot engage the friendly force with either direct fires or observed indirect fires. Disengaging from the enemy while displacing from one position to the next is a difficult procedure. A disengagement plan includes—

- The maneuver concept of operations for tactical elements after disengagement, along with the movement routes for each subordinate unit.
- Fires to suppress the enemy and cover the unit's movement.
- Screening smoke to conceal the unit's movement, as part of a deception operation, or to cover passage points.
- Contact and passage points if moving through friendly lines. (See [Chapter 15](#).)
- The time disengagement starts.
- The earliest time that CS and CSS elements move.

B-19. The senior headquarters conducts operations to support the disengaging forces and relieve pressure on units in contact with the enemy. For example, if a division is conducting a delay, the division commander uses his aviation assets to help a ground maneuver brigade disengage from the close fight. Simultaneously, the division uses its long-range artillery, rocket, and EW systems to destroy or disrupt enemy follow-on echelons to prevent them from interfering with the disengagement. The intent is to create conditions that allow the unit to disengage while avoiding decisive combat.

B-20. To facilitate disengagement, the commander suppresses the enemy in contact by bombarding him with large volumes of both direct and indirect fires provided by forces other than the disengaging unit. In open terrain, the unit generally moves its short-range systems first. In close terrain, it generally moves its long-range systems first to support by fire positions. The time involved to move a system to its next position also affects when that system moves. Small unit leaders usually direct this movement because of the limited range of combat net radios and the fact that the tactical situation varies across a unit's front. The process repeats as necessary. Once disengagement starts, units must complete it rapidly. The commander can employ supporting units or reserves to protect the disengaging unit's flanks and assist in freeing any closely engaged elements. The unit then moves to its next position using the appropriate movement techniques. (See [Chapter 14](#).)

B-21. If enemy combat systems have not closed within direct-fire range of the friendly disengaging unit, all its elements may be able to move simultaneously under the cover of intense fires and smoke. Speed of execution and continued coordination are essential to the success of this task.

EXFILTRATE

B-22. ***Exfiltrate*** is a tactical mission task where a commander removes soldiers or units from areas under enemy control by stealth, deception, surprise, or clandestine means. Friendly forces exfiltrate when they have been encircled by enemy forces and cannot conduct a breakout or be relieved by other friendly forces. Forces returning from a raid, an infiltration, or a patrol behind enemy lines can also conduct an exfiltration. The commander exfiltrates an encircled force to preserve a portion of the force; it is preferable to the capture of the entire force. A force exfiltrates only after destroying or incapacitating all equipment (less medical) it must leave behind. Only as a last resort, when the alternative is the capture of the entire force, does a force conducting an exfiltration leave its casualties in place with supplies, chaplain support, and medical attendants.

B-23. Exfiltration is most feasible through rough or difficult terrain in areas lightly covered by enemy observation and fire. These conditions often allow undetected movement of small elements, when movement of the entire force would present more risk. Exfiltration requires resourcefulness, a high degree of discipline, expert land navigational skills, and motivation. It is unlikely that the entire force will be able to exfiltrate, since part of it may have to create a diversion. Good, small-unit leadership is essential in this type of operation.

B-24. The exfiltrating force first establishes its rally points and exfiltration lanes. It coordinates its linkup plans with other friendly units. The commander designates exfiltration lanes as restricted fire areas (RFAs) or no-fire areas (NFAs). The exfiltrating force uses preparatory fires to cover its movement and to expend stockpiled ammunition. Based on reconnaissance and available intelligence, the exfiltrating force subdivides into small groups and exfiltrates during periods of limited visibility, passing through or around enemy defensive positions. If detected, it tries to bypass the enemy. Exfiltration may be more difficult with combat and tactical vehicles because of the noise they make and the limitations they impose on exfiltration routes, make detection more likely.

FOLLOW AND ASSUME

B-25. ***Follow and assume*** is a tactical mission task in which a second committed force follows a force conducting an offensive operation and is prepared to continue the mission if the lead force is fixed, attrited, or unable to continue. The follow-and-assume force is not a reserve but is committed to accomplish specific tasks. [Figure B-7](#) shows the tactical mission graphic for follow and assume. The commander places the box part of the graphic around the symbol of the unit being assigned this task.

B-26. Tasks for a follow-and-assume force include—

- Preparing to execute all missions of the followed unit.
- Maintaining contact with the trail elements of the leading force.
- Preparing to conduct a forward passage of lines through the force it is following.
- Monitoring all combat information and intelligence being provided to and from the force it is following.

- Avoiding engaging enemy forces bypassed by the force it is following.

B-27. A commander assigns a follow-and-assume mission to ensure that he can maintain the momentum of his offensive operation. The follow-and-assume force ensures that it can immediately execute a forward passage of lines and assume the mission of the lead force.

B-28. The commander assigning a unit the task of follow and assume has two options in establishing the relationship between the lead and trail units. He normally retains command of both units and requires that all requests for support from the supported unit to the supporting unit pass through his headquarters. Alternatively, in situations where the commander will not be able to maintain control over both units, he places the supporting unit in a standard command relationship with the supported unit, such as attached or operational control. An example of this occurs when both units are trying to encircle a retrograding enemy force and the commander remains with the direct-pressure force.

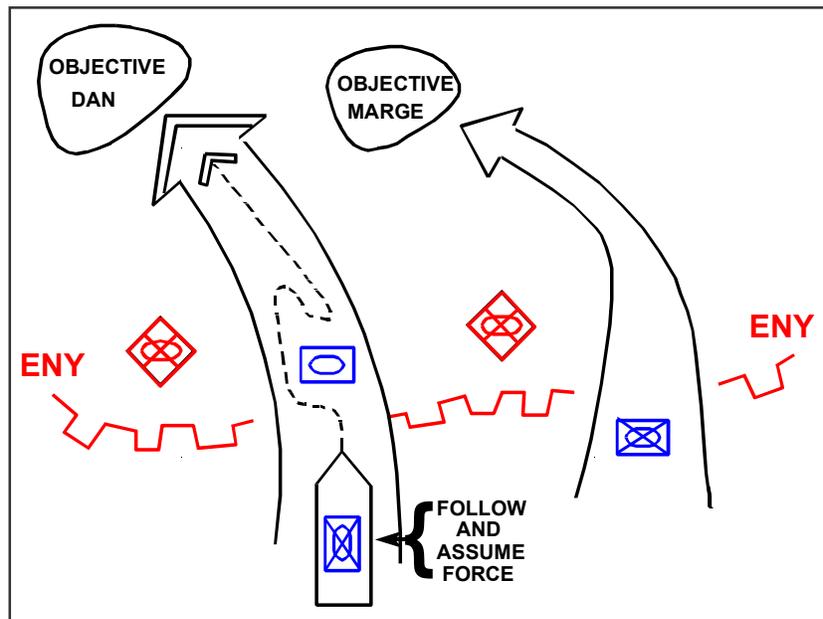


Figure B-7. Follow and Assume Tactical Mission Graphic

FOLLOW AND SUPPORT

B-29. *Follow and support* is a tactical mission task in which a committed force follows and supports a lead force conducting an offensive operation. The follow-and-support force is not a reserve but is a force committed to specific tasks. (Figure B-8 on page B-10 shows the tactical mission graphic for follow and support.) The commander places the box part of the graphic around the symbol of the unit being assigned this task.

B-30. Tasks for a follow-and-support force include—

- Destroying bypassed enemy units when the lead unit does not clear the AO as it advances.
- Blocking movement of enemy reinforcements.

- Relieving in place any direct-pressure or encircling force halted to contain the enemy.
- Securing lines of communication.
- Clearing obstacles.
- Guarding prisoners, key areas, and installations.
- Recovering friendly battle losses.
- Securing key terrain.
- Controlling dislocated civilians.

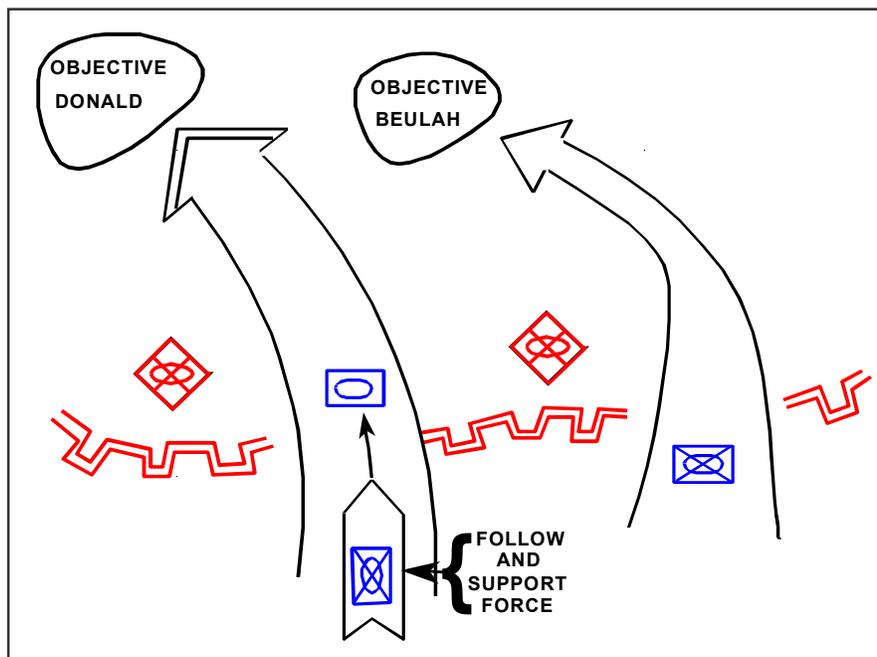


Figure B-8. Follow and Support Tactical Mission Graphic

B-31. A commander assigns a unit the task of follow and support to keep the supported force from having to commit its combat power to tasks other than the decisive operation, which would slow the offensive operation's momentum and tempo. The follow-and-support force must accomplish its tasks to prevent the enemy, obstacles, and other factors from interfering with offensive operations, especially along the lines of communications.

B-32. The commander assigning the follow-and-support task has two options in establishing the relationship between the supported and the supporting units. He can place the follow-and-support unit in a standard command relationship with the supported unit, such as attached or operational control. Alternatively, he can retain command of the follow-and-support force and require that all tasking request from the supported unit go through his headquarters.

OCCUPY

B-33. *Occupy* is a tactical mission task that involves moving a friendly force into an area so that it can control that area. Both the

force's movement to and occupation of the area occur without enemy opposition. A unit can control an area without occupying it, but not vice versa. That is the difference between the tactical mission tasks of occupy and control. (Figure B-9 shows the occupy tactical mission graphic.) The X on the tactical mission graphic has no significance, but the graphic should encompass the entire area that the commander desires to occupy. Units typically occupy assembly areas, objectives, and defensive positions. (Chapters 2, 3, and 8 discuss this process in detail.)

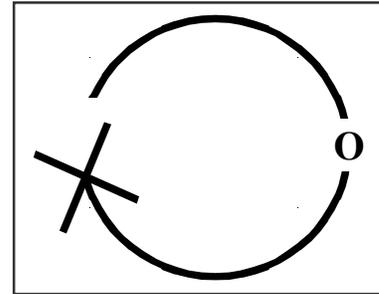


Figure B-9. Occupy Tactical Mission Graphic

REDUCE

B-34. *Reduce* is a tactical mission task that involves the destruction of an encircled or bypassed enemy force. There is no tactical mission graphic for this task. This task can occur at any location on the battlefield. (Appendix D discusses the reduction of an encircled enemy.) Reduce is also a mobility task that involves creating sufficient lanes through an obstacle to negate its intended effect.

RETAIN

B-35. *Retain* is a tactical mission task in which the commander ensures that a terrain feature controlled by a friendly force remains free of enemy occupation or use. The commander assigning this task must specify the area to retain and the duration of the retention, which is time- or event-driven. While a unit is conducting this task, it expects the enemy to attack and prepares to become decisively engaged. A unit tasked to retain a specific piece of terrain does not necessarily have to occupy it. (Figure B-10 shows the tactical mission graphic for retain.) The direction of the arrow has no significance, but the graphic should include the entire area the commander wants to retain.

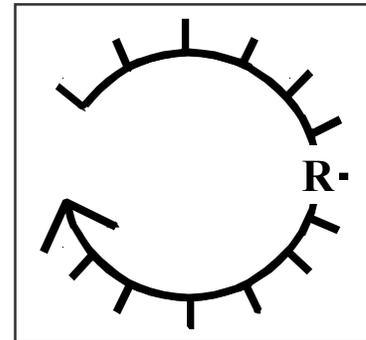
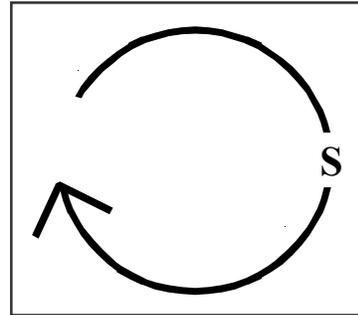


Figure B-10. Retain Tactical Mission Graphic

SECURE

B-36. *Secure* is a tactical mission task that involves preventing a unit, facility, or geographical location from being damaged or destroyed as a result of enemy action. This task normally involves conducting area security operations. (See Chapter 12.) A force given the mission of securing a unit, facility, or geographical location not only prevents enemy forces from over-running or occupying the secured location, but also prevents enemy direct fires and observed indirect fires from impacting the secured location. This is the primary difference between control and secure. The control tactical mission task allows enemy direct and indirect fires to affect the location being controlled. A unit does not have to physically occupy the area

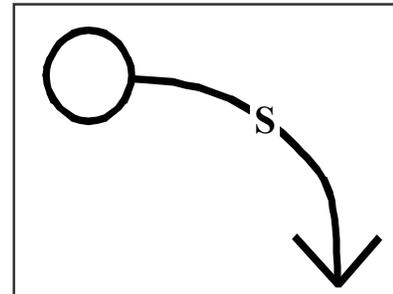
immediately around the unit, facility, or geographical location it is securing if it can prevent the enemy from occupying or firing at that location by other means. The commander states the mission duration in terms of time or event when assigning a mission to secure a given unit, facility, or geographical location. (Figure B-11 shows the tactical mission graphic for secure.) The direction of the arrow has no significance, but the graphic should include the entire area the commander wants to secure.



**Figure B-11. Secure
Tactical Mission Graphic**

SEIZE

B-37. *Seize* is a tactical mission task that involves taking possession of a designated area by using overwhelming force. (Figure B-12 shows the tactical mission graphic for seize.) An enemy force can no longer place direct fire on an objective that has been seized. The arrow points to the location or objective to seize. This task differs from secure because it requires offensive action to obtain control of the designated area or objective. It differs from the task of occupy because it involves overcoming anticipated enemy opposition. Once a force seizes a physical objective, it clears the terrain within that objective by killing, capturing, or forcing the withdrawal of all enemy forces.



**Figure B-12. Seize
Tactical Mission Graphic**

SUPPORT-BY- FIRE

B-38. *Support-by-fire* is a tactical mission task in which a maneuver force moves to a position where it can engage the enemy by direct fire in support of another maneuvering force. The primary objective of the support force is normally to fix and suppress the enemy so he cannot effectively fire on the maneuvering force. The secondary objective is to destroy the enemy if he tries to reposition. The commander must specify the desired effect on the enemy when assigning this task to a subordinate.

B-39. A unit conducting the task of support by fire does not maneuver to capture enemy forces or terrain. The commander gives this task to another unit as part of a larger maneuver. When assigning a support-by-fire mission, the commander designates the enemy, when to attack, the general location from which to operate, the friendly force to support, and the purpose of the task, such as fix or suppress. (Figure B-13 shows the tactical mission graphic for support by fire.) The ends of the arrows should point in the general direction of the targeted unit or location. The base of the area indicates the general area from which to deliver fires.

B-40. Once the commander gives an element the task of support by fire, it should occupy support by fire positions that have cover and concealment,

good observation, and clear fields of fire. Elements occupying support-by-fire positions should—

- Check the security of the position.
- Search for targets.
- Orient weapons on likely or suspected enemy positions.
- Assume fighting positions that provide some degree of protection. Heavy forces occupy hull-down firing positions, while light forces use trees, natural berms, buildings, and similar existing terrain features.
- Assign observation sectors to each soldier or weapon system in the support-by-fire element.
- Use its available thermal sights to locate heat sources not visible to the naked eye, such as vehicles concealed in tree lines or other wooded areas or personnel serving at OPs.

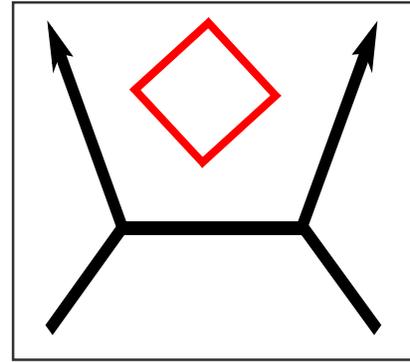


Figure B-13. Support-by-Fire Position Tactical Mission Graphic

B-41. Support by fire closely resembles the task of attack by fire. The difference is that support by fire supports another force so it can maneuver against the enemy, while an attack by fire does not support the maneuver of another friendly force.

EFFECTS ON ENEMY FORCE

BLOCK

B-42. **Block** is a tactical mission task that denies the enemy access to an area or prevents his advance in a direction or along an avenue of approach. A blocking task normally requires the friendly force to block the enemy force for a certain time or until a specific event has occurred. The line perpendicular to the enemy's line of advance indicates the limit of enemy advance. A blocking unit may have to hold terrain and become decisively engaged. (Figure B-14 illustrates the tactical mission graphic for a blocking task.)

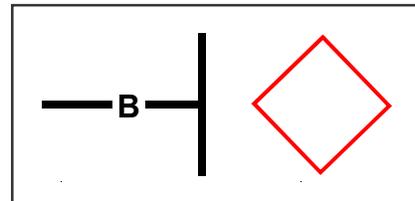


Figure B-14. Block Tactical Mission Graphic

B-43. **Block** is also an engineer obstacle effect that integrates fire planning and obstacle effort to stop an attacker along a specific avenue of approach or prevent him from passing through an engagement area. The vertical line in the obstacle effect graphic indicates the limit of enemy advance. They also indicate where the obstacle ties in to restricted terrain. (Figure B-15 on page B-14 illustrates the block obstacle effect graphic.) A blocking force may employ blocking obstacles to assist in the task. Blocking obstacles are complex, employed in depth, and integrated with fires to prevent the enemy from proceeding along an avenue of approach, or to

proceed only at unacceptable cost. When employed, blocking obstacles should serve as a limit, not allowing the enemy beyond that point. Obstacles alone cannot accomplish a blocking task. (FM 3-34.1 describes the block engineer obstacle effect.)

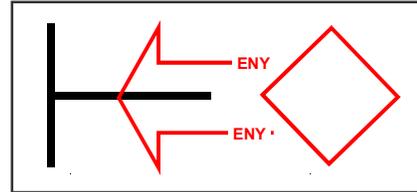


Figure B-15. Block Obstacle Effect Graphic

B-44. Block as a tactical mission task differs from the tactical mission task of fix because a blocked enemy force can move in any direction other than the obstructed one, while a fixed enemy force cannot move in any direction.

CANALIZE

B-45. *Canalize* is a tactical mission task in which the commander restricts enemy movement to a narrow zone by exploiting terrain coupled with the use of obstacles, fires, or friendly maneuver. (See Figure B-16.) Figure B-17 shows how successful canalization results in moving the enemy formation or individual soldiers and weapon systems into a predetermined position where they are vulnerable to piecemeal destruction by direct and indirect fires.

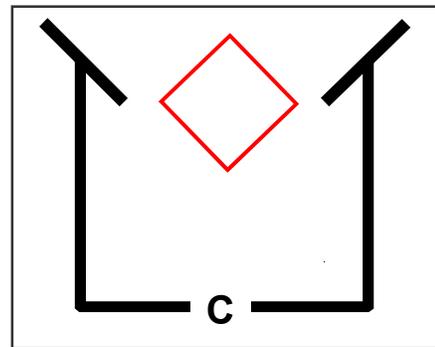


Figure B-16. Canalize Tactical Mission Graphic

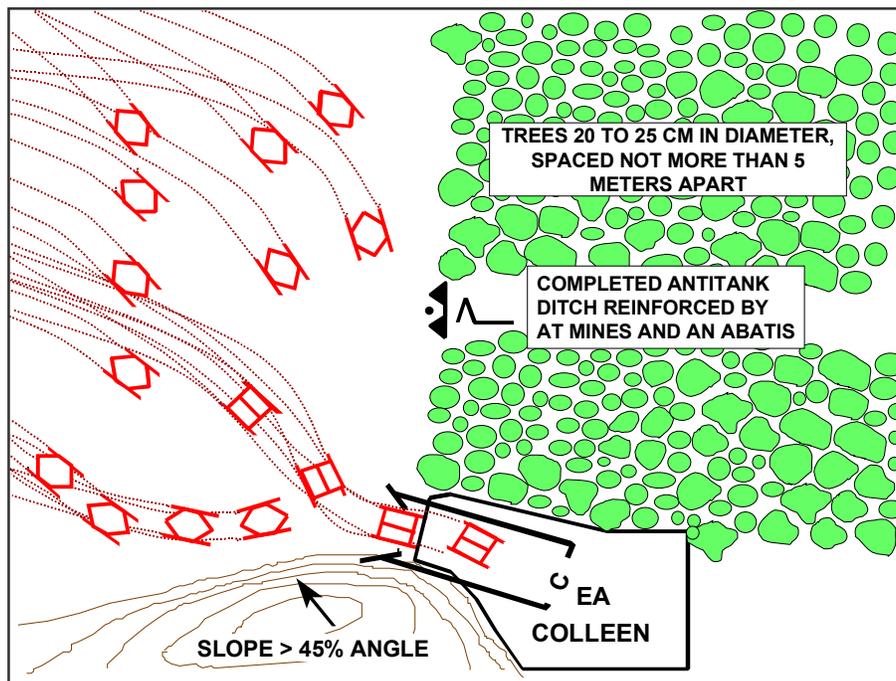
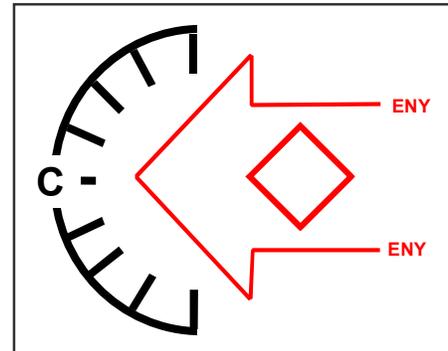


Figure B-17. Canalizing Terrain Enhanced by Obstacles Used with an Engagement Area

CONTAIN

B-46. *Contain* is a tactical mission task that requires the commander to stop, hold, or surround enemy forces or to cause them to center their activity on a given front and prevent them from withdrawing any part of their forces for use elsewhere. Containment allows an enemy to reposition himself within the designated geographical area, whereas fixing an enemy does not. Geo-graphic terms or time may express the limits of the containment. The contain graphic encompasses the entire geographical area in which the commander desires to contain the enemy during the development of alternative courses of action. (Figure B-18 shows the tactical control graphic for contain.)



**Figure B-18. Contain
Tactical Mission Graphic**

DEFEAT

B-47. *Defeat* is a tactical mission task that occurs when an enemy force has temporarily or permanently lost the physical means or the will to fight. The defeated force's commander is unwilling or unable to pursue his adopted course of action, thereby yielding to the friendly commander's will and can no longer interfere to a significant degree with the actions of friendly forces. Defeat can result from the use of force or the threat of its use.

B-48. A commander can generate different effects against an enemy to defeat him:

- Physical. The enemy loses the physical means to continue fighting. He no longer has the personnel, weapon systems, equipment, or supplies to carry out his assigned mission.
- Psychological. The enemy loses the will to fight. He becomes mentally exhausted, and his morale is so low that he can no longer continue to carry out his assigned mission.

These effects typically occur as a result of catastrophic losses inflicted over a very short time or from sustained attrition. An opponent who is not ideologically motivated opponent may be defeated psychologically on observing preparations for the delivery of clearly overwhelming combat power on his position. Defeat manifests itself in some sort of physical action, such as mass surrenders, abandonment of significant quantities of equipment and supplies, or retrograde operations.

DESTROY

B-49. *Destroy* is a tactical mission task that physically renders an enemy force combat-ineffective until it is reconstituted. Alternatively, to destroy a combat system is to damage it so badly that it cannot perform any function or be restored to a usable condition without being entirely rebuilt. The amount of damage needed to render a unit combat-

ineffective depends on the unit's type, discipline, and morale. Destroying armored or dug-in targets with area fire weapons requires considerable ammunition and time, so forces do not normally attempt it unless they have terminally guided munitions. (Figure B-19 shows the tactical mission graphic for destroy.)

DISRUPT

B-50. *Disrupt* is a tactical mission task in which a commander integrates direct and indirect fires, terrain, and obstacles to upset an enemy's formation or tempo, interrupt his timetable, or cause his forces to commit prematurely or attack in a piecemeal fashion. This increases the enemy's vulnerability to friendly fires. It may temporarily knock a unit out of the battle. Disruption is never an end; it is the means to an end. (Figure B-20 shows the tactical mission graphic for disrupt. The center arrow points toward the targeted enemy unit.)

B-51. The maneuver force attempting to disrupt an enemy must attack him with enough combat power to achieve desired results with one mass attack or sustain the attack until it achieves the desired results. It may involve attacking the enemy while he is still in his assembly areas or in an approach march before he can deploy into a combat formation. The commander determines the amount of risk he is willing to accept based on anticipated friendly losses, the location of the attack, and the number of attacks.

B-52. *Disrupt* is also an engineer obstacle effect that focuses fire planning and obstacle effort to cause the enemy to break up his formation and tempo, interrupt his timetable, commit breaching assets prematurely, and attack in a piecemeal effort. It also helps to deceive the enemy concerning the location of friendly defensive positions, to separate combat echelons, or to separate combat forces from their logistic support. As shown in Figure B-21, the

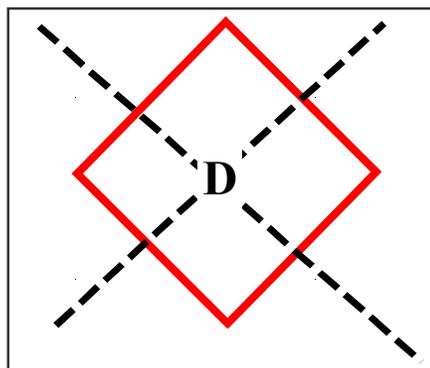


Figure B-19. Destroy
Tactical Mission Graphic

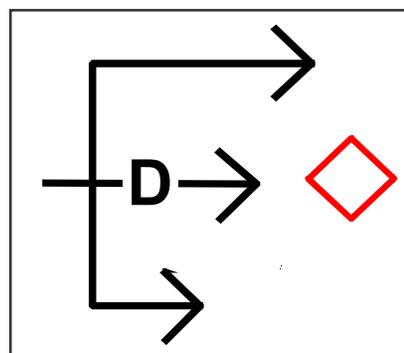


Figure B-20. Disrupt
Tactical Mission Graphic

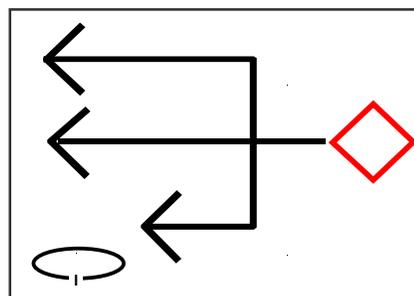


Figure B-21. Disrupt
Obstacle Effect Graphic

short arrow(s) in the obstacle-effect graphic indicates where obstacles impact the enemy's ability to maneuver. The longer arrow(s) indicate where the commander allows the enemy to bypass the obstacle effect so he can attack him with fires. The arrows indicate the direction of enemy attack. A defending

commander normally uses the disrupt obstacle effect forward of his EAs. Obstacles alone cannot disrupt an enemy unit. (FM 3-34.1 describes the disrupt engineer obstacle effect.)

FIX

B-53. *Fix* is a tactical mission task where a commander prevents the enemy from moving any part of his force from a specific location for a specific period. This may occur by engaging him to prevent his withdrawal for use elsewhere, or by using deception, such as transmitting false orders. The commander uses fix in offensive and defensive actions; it is always a shaping operation. (Figure B-22 shows the tactical mission graphic for fix.) The commander points the arrow toward the enemy unit that he desires to fix. The broken part of the arrow indicates the desired location for that event to occur.

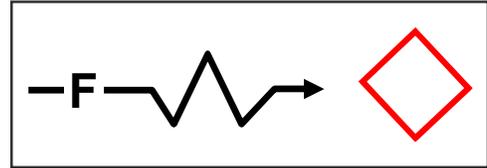


Figure B-22. Fix Tactical Mission Graphic

B-54. Fixing an enemy force does not mean destroying it. The friendly force has to prevent the enemy from moving in any direction. This task usually has a time constraint, such as fix the enemy reserve force until OBJECTIVE FALON, the decisive operation, is secured. The tactical mission task of fix differs from that of block in that a fixed enemy force cannot move from a given location, but a blocked enemy force can move in any direction other than the one obstructed.

B-55. *Fix* is also an engineer obstacle effect that focuses fire planning and obstacle effort to slow an attacker's movement within a specified area, normally an engagement area. Primary use of this effect is to give the friendly unit time to acquire, target, and destroy the attacking enemy with direct and indirect fires throughout the depth of an EA or avenue of approach. The irregular part of the arrow in the obstacle-intent graphic indicates the location where the enemy's rate of advance will be slowed by complex obstacles. The arrow indicates the direction of enemy advance. (See Figure B-23.) (FM 3-34.1 describes the fix engineer obstacle effect.)

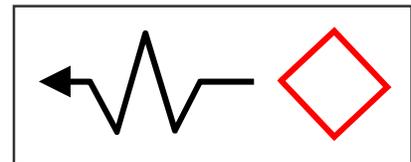


Figure B-23. Fix Obstacle Intent Graphic

INTERDICTION

B-56. *Interdict* is a tactical mission task where the commander prevents, disrupts, or delays the enemy's use of an area or route. Interdiction is a shaping operation conducted to complement and reinforce other ongoing offensive or defensive operations. (Figure B-24 on page B-18 shows the tactical mission graphic for interdict.) The two arrows should cross on the unit or location targeted for interdiction. An interdiction tasking must specify how long to interdict, defined as a length of time or some event that must occur before the interdiction is lifted, or the exact effect desired from the interdiction.

B-57. The depth at which the attacking force conducts the interdiction generally determines the friendly force's freedom of action. Increasing the depth of operations reduces the danger of fratricide to air and surface forces, reduces the coordination required, and allows increasingly flexible operations. With more freedom of action, aerial forces leave the enemy with no location immune from attack.

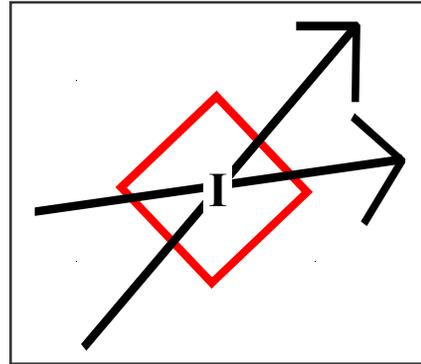
B-58. The depth at which interdiction takes place also determines the speed with which its effects are observed. Normally, ground maneuver units first focus on targets close to the forward of line own troops (FLOT). Interdiction efforts there have immediate impact on enemy forces near the interdiction target but do not affect the enemy's ability to mass force effects. Attacks at greater distances from the FLOT have a delayed impact on close combat but eventually degrade the enemy's ability to mass effects.

B-59. The friendly force's capability to interdict may have a devastating impact on the enemy's plans and ability to respond to friendly actions. For example, interdiction efforts that result in the enemy's maneuver being delayed or disrupted enhances the friendly force's ability to achieve tactical advantages. Delaying or disrupting enemy resupply efforts limits his ability to sustain intense, high-tempo offensive or defensive operations and restricts the mobility of his forces.

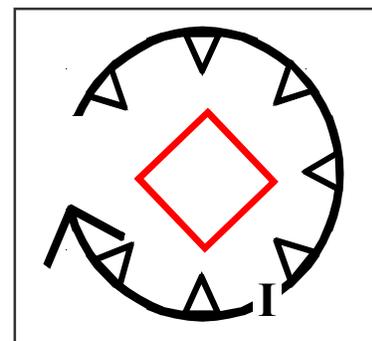
B-60. Interdicting the movement of enemy units can be extremely effective in assisting their encirclement and eventual destruction. Fixed enemy ground forces—or those trapped by the loss of their mobility—provide lucrative targets. The commander should plan to interdict withdrawing enemy forces to enhance his pursuit. While interdiction can contribute to success by hampering reinforcement and resupply, it can also contribute by trapping enemy forces or canalizing their maneuvers, leading to their destruction in detail.

ISOLATE

B-61. *Isolate* is a tactical mission task that requires a unit to seal off—both physically and psychologically—an enemy from his sources of support, deny him freedom of movement, and prevent him from having contact with other enemy forces. A commander does not allow an isolated enemy sanctuary within his present position but continues to conduct offensive actions against him. (Figure B-25 shows the tactical mission graphic for isolate.) The position or direction of the arrow has no significance, but the graphic should surround the targeted enemy unit.



**Figure B-24. Interdict
Tactical Mission Graphic**



**Figure B-25. Isolate
Tactical Mission Graphic**

NEUTRALIZE

B-62. **Neutralize** is a tactical mission task that results in rendering enemy personnel or materiel incapable of interfering with a particular operation. (Figure B-26 shows the neutralize tactical mission graphic.) The two lines crossing over the symbol of the unit or facility targeted for neutralization. When assigning a task to neutralize, the commander must specify the enemy force or materiel to neutralize and the duration, which is time- or event-driven. The neutralized target may become effective again when casualties are replaced, damage is repaired, or effort resulting in the neutralization is lifted. The commander normally uses a combination of lethal and nonlethal fires to neutralize enemy personnel or materiel. The assets required to neutralize a target vary according to the type and size of the target and the weapon and munitions combination used.

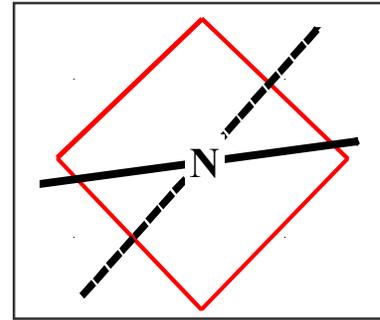


Figure B-26. Neutralize Tactical Mission Graphic

SUPPRESS

B-63. **Suppress** is a tactical mission task that results in the temporary degradation of the performance of a force or weapon system below the level needed to accomplish its mission. It occurs when a commander employs direct or indirect lethal fires, offensive information operations, or smoke on enemy personnel, weapons, and equipment to prevent or degrade enemy fires, sensors, and visual observation of friendly forces. As opposed to the neutralization task, the original target regains its effectiveness without needing to reconstitute once the effects of the systems involved in the suppression effort lift or shift to another target.

TURN

B-64. **Turn** is a tactical mission task that involves forcing an enemy element from one avenue of approach or movement corridor to another. The commander relates obstacles, fires, and terrain to improve his tactical situation while degrading the enemy's situation. For example, in the offense, a commander might want to turn an enemy force he is pursuing to place it in a position where he can destroy it. In the defense, a commander might want to turn an attacking enemy force to allow him to conduct a counterattack into its flank. (Figure B-27 shows the turn tactical mission graphic.) The place where the arrow breaks indicates the general location of the obstacle complex that will force the enemy to move from one avenue of approach to another.

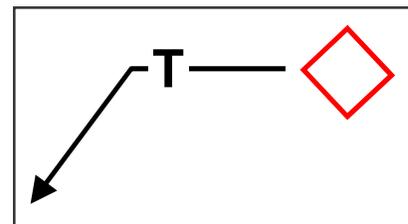


Figure B-27. Turn Tactical Mission Graphic

B-65. **Turn** is also a tactical obstacle effect that integrates fire planning and obstacle effort to divert an enemy formation from one

avenue of approach to an adjacent avenue of approach or into an engagement area. Its development requires well-defined mobility corridors and avenues of approach. To achieve this effect, the obstacles have a subtle orientation relative to the enemy's approach as shown in Figure B-28. The obstacles and their associated fires allow bypasses in the direction desired by the friendly scheme of maneuver. Finally, the obstacles tie into restrictive terrain at the initial point of the turn. A commander normally uses the turn effect on the flanks of an EA. The direction of the arrow indicates the desired direction of turn. (See FM 3-34.1 for more information on tactical obstacle effects.)

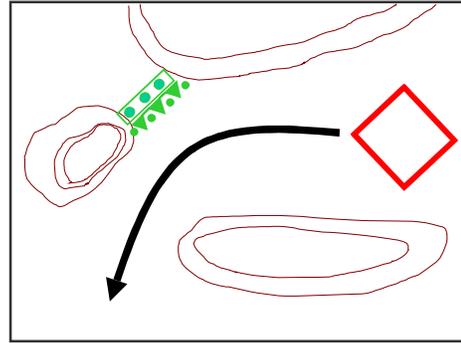


Figure B-28. Turn Obstacle Effect

Appendix C

Airborne and Air Assault Operations

A landing against organized and highly trained opposition is probably the most difficult undertaking which military forces are called upon to face.

General of the Army George C. Marshall, 1943

Joint force commanders conduct entry operations at the operational level of war. Commanders operating at the tactical level conduct airborne or air assault operations to gain a positional advantage or to envelop or turn the enemy. Airborne and air assault operations are types of entry operations that use a vertical envelopment to insert a force into an area of operations (AO). An enemy may or may not be in a position to oppose the operation. While the commander should attempt to achieve an unopposed landing, he must prepare for the presence of opposition.

C-1. The capability to conduct airborne and air assault operations allows the commander to—

- Threaten enemy rear areas, causing the enemy to divert combat elements to protect vital installations and hold key terrain.
- Overcome distances quickly, overfly barriers, and bypass enemy defenses.
- Extend the area over which he can exert his influence.
- Disperse his reserve forces widely for force protection reasons while maintaining their capability for effective and rapid response.
- Exploit his combat power by increasing tactical mobility.

COMMON FACTORS

C-2. Factors common to airborne and air assault operations are the use of the reverse planning process, condition setting, and the impact of meteorological conditions (weather and light data).

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REVERSE PLANNING PROCESS

C-3. An inverse sequence of detailed planning and joint coordination characterizes both operations. As a minimum, airborne and air assault plans include a—

- Ground tactical plan.
- Landing plan.
- Movement plan.
- Marshaling plan. (The air assault terminology for this last plan is the staging plan.)

Intelligence regarding the enemy and terrain characteristics of the objective area is vital to this process.

C-4. Airborne and air assault operations result in establishing positions that support completing the force's assigned mission. The ground tactical plan is the first plan completed. It must address the early destruction of any enemy forces that pose an immediate threat to the lodgment area. Commanders and their staffs normally develop the landing plan from the ground tactical plan. From the landing plan, they develop the movement plan. This continues until the staff completes the marshaling plan.

C-5. The ground tactical plan is the basis for planning throughout the planning process. However, each plan affects the others, and changes in one plan can require adjustments in the other plans. The commander must determine if such adjustments entail acceptable risk. If the risk is unacceptable, the concept of operations must change. For example, the amount of lift available determines the feasibility of the ground tactical plan. If there are not enough lift systems to put all the required forces in place at the required time, the commander should adjust the ground tactical plan as well as the other plans. Therefore, planning for airborne and air assault operations requires the staff to obtain vital planning data, such as the availability of lift systems and the technical and tactical capabilities of those systems as early as possible.

C-6. Commanders ensure continuous coordination between the parallel echelons of the assaulting combat force and the unit or service providing the transportation from the beginning of an operation until its completion or abandonment. Units jointly coordinate and staff each detail before initiating operations. The commander makes maximum use of combined arms capabilities to ensure the assault force has sufficient power to accomplish its mission and protect itself. Short planning times often require staffs to modify existing contingency plans and standing operating procedures to meet the exact situation while still ensuring adequate coordination.

CONDITION SETTING

C-7. Setting conditions is also a common factor necessary for the success of air assault and airborne operations. Condition setting postures the air assault or parachute force for success with minimal or acceptable losses. The commander determines the exact conditions required in accordance with the factors of METT-TC, to include the degree of risk he is willing to accept with regard to each condition. Setting conditions is not limited to conducting suppression of enemy air defense and preparatory fires. It requires the

participation of numerous staffs, units, cells, and boards in different echelons and services.

C-8. Condition setting is an iterative process. The commander through his situational understanding, decides what part of the situation must change to ensure the success of the vertical envelopment. He tasks his intelligence, surveillance, and reconnaissance (ISR) assets to detect the location of those enemy systems that unacceptably endanger the success of the operation. This allows his fire support systems to target and deliver fire effects against those enemy systems. He tasks his other battlefield operating systems to continue planning and preparing for the operation. The commander requests assistance from his higher headquarters if he does not have sufficient organic assets and information to accomplish the mission. He then assesses the progress of his battlefield operating systems. This process repeats until he is satisfied with the result or operational necessity forces him to either cancel or conduct the vertical envelopment.

METEOROLOGICAL CONDITIONS

C-9. Meteorological conditions affect airborne and air assault operations more than they affect any other type of operation. Long-range forecasts are vital to planning. As part of the planning process, commanders determine what adverse weather conditions would delay or cancel operations.

C-10. Commanders consider current and forecasted weather conditions in terms of their impact on tactical operations and aircraft performance. To issue the execution order that initiates the operation, the commander must know the current weather information at departure sites and pickup zones (PZs), along approach routes, and in the objective area. Operations conducted during marginal weather conditions may enhance the element of surprise, but they also increase the risk of accidents. The commander may have to postpone a planned operation or reduce the tempo of an ongoing operation when the risk becomes unacceptable because of deteriorating weather conditions.

C-11. Weather conditions affect aircraft performance and influence the conduct of operations. These conditions include: wind shears, crosswinds, and the ambient temperatures throughout the course of the operation. High temperature and altitude degrade aircraft lift performance. The combination of these factors results in trade-offs in the operating parameters of all missions. For example, a commander may insert dismounted reconnaissance teams on mountainsides in the cool of the morning, but be unable to execute the same mission in the noonday heat.

AIRBORNE OPERATIONS

C-12. An *airborne operation* is an operation involving the air movement into an objective area of combat forces and their logistic support for execution of a tactical, operational, or strategic mission. The means employed may be any combination of airborne units, air transportable units, and types of transport aircraft, depending on the mission and the overall situation (JP 3-17). The objective area is known as the airhead. The airhead contains enough drop zones (DZs) and landing zones (LZs) to allow airborne forces to mass effects on their

objectives. The airhead should also contain extraction zones (EZs), interior lines of communications (LOCs), and terrain that allows for conducting a defense in depth. An administrative air movement of personnel, supplies, or equipment is not an airborne operation, although some procedures used in an airborne operation may apply. (JP 3-18 and FM 3-18.11 provide the doctrinal basis for airborne operations.)

C-13. Airborne operations are joint operations because of the interservice links of modern command and control (C2) systems, the multiservice structure of the defense transportation system, and the broad range of forces and support involved. Airborne operations require secure staging and departure areas coupled with the need to maintain operations security (OPSEC). OPSEC measures may include establishing intermediate support bases within tactical airlift range. The operation begins and ends on the order of the commander who establishes the joint airborne force.

ORGANIZATION OF FORCES

C-14. Once the commander determines the principal components of the ground tactical plan and the maneuver and fire support schemes, the airborne force organizes to execute its assigned mission. The commander balances the immediate need for combat power with the need to ensure force sustainability over time. To ensure unity of effort, part or all of the assigned forces' subordinate units can form into one or more temporary tactical groupings, such as teams or task forces. Each tactical group has a designated commander. Doctrine cannot prescribe in advance a standard organization to meet all conditions. However, airborne forces generally divide into one of three echelons: the assault echelon, the follow-on echelon, and the rear echelon.

C-15. The *assault echelon* is the element of a force that is scheduled for initial assault on the objective area (JP 4-01.2). In an airborne assault it normally comprises those forces capable of insertion by parachute in a single drop by the available lift systems. The assault echelon is a combined arms organization with only limited sustainment capabilities. The commander cross-loads vital assets, such as commanders, principal staff, communication systems, reconnaissance and security forces, and crew-served weapons among the various transportation systems so the loss of a single air frame will not compromise the operation. (Cross-loading also applies to air assault operations.)

C-16. **The *follow-on echelon* contains those additional forces moved into the objective area after the assault echelon.** They provide the combat power necessary to expand the initial airhead, secure the lodgment area, and establish one or more air or seaports of debarkation. The composition of the follow-on echelon depends on the factors of METT-TC. It can consist of heavy and light combined arms formations, field and air defense artillery assets, and combat engineers, as well as significant combat support (CS) and combat service support (CSS) elements. Introducing this echelon can extend over several days and involve multiple sorties by individual lift systems. Usually, this echelon does not require cross-loading of its allocated lift systems. This increases the carrying capacity of the lift systems delivering this echelon. This echelon contains increased sustainment capabilities.

C-17. The rear echelon contains those elements of the force that are not required in the objective area. It may remain at home station or at an intermediate staging base or intermediate support base throughout short-duration operations. This echelon generally contains the airborne unit's long-term sustainment capabilities.

CONTROL MEASURES

C-18. The commander has the full range of graphic control measures to help control his operation. As a minimum, the commander must assign each subordinate unit an AO. The airborne operation commander also use DZs, LZs, EZs, assault objectives, and the airhead line to focus the efforts of his subordinates.

C-19. Selecting DZs and LZs is a joint responsibility. The mission commander is responsible for delivering personnel and cargo to the DZ or LZ and for selecting approaches to the landing area. Both the joint and component commanders must base their decisions on their knowledge of respective problems and on the needs of the overall operation. The nature and location of landing areas are important when preparing the scheme of maneuver. The mission governs the general area where they should be established. At higher echelons, commanders can assign landing areas in broad terms. At lower echelons, they must describe these locations specifically. The commander selects his DZs only after conducting a detailed analysis. He uses the information provided by his intelligence system and Army pathfinders as he considers the following factors when selecting DZs and LZs:

- Ease of identification.
- Straight-line approach.
- Suitable for the weather and terrain.
- Out of range of enemy air defenses, strong ground defenses, and suppressive indirect fires.
- Close to or on top of an assault objective.

Since the last two entries conflict, he must decide which consideration has priority. (FM 3-17 provides detailed information regarding the desired characteristics of DZs and LZs.)

C-20. When assigning objectives and boundaries in airborne operations, the commander must consider other factors in addition to those inherent in conventional operations. He selects specific assault objectives based on an analysis of the situation. (See [Figure C-1](#), page C-6.) The assault objectives dictate the size and shape of the airhead, although the commander develops the airhead line and determines the assault objectives concurrently. He selects assault objectives for his subordinate elements. Concurrently, the commanders of these subordinate elements decide the size, type, or disposition of the force that they commit to gain and maintain control of their objectives.

C-21. Selecting assault objectives should allow forces to accomplish mission-essential tasks while meeting the commander's intent. However, they may not include those objectives that must be seized to secure the airhead line. An appropriate assault objective is one that the force must control early in the assault to accomplish the mission or enhance the security of the airborne force. This can include key terrain within the airhead or terrain required for

linkup. The airborne force is vulnerable from the time it lands until follow-on forces arrive at the airhead. A mounted enemy unit that attacks the airhead immediately following the airborne assault can completely disrupt the operation or even cause it to fail. Therefore, the assault objectives selected by the commander are terrain locations that dominate high-speed enemy avenues of approach into the airhead. He can also select enemy positions that threaten the mission and are within the airhead. The unit must seize its assault objectives immediately to establish the airhead and provide security for follow-on forces.

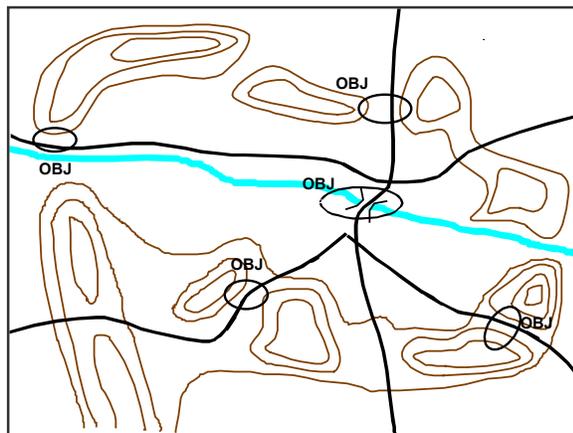


Figure C-1. Assault Objectives

C-22. The commander ranks the assault objectives based on the most likely threat or mission requirements. The airborne force secures its assault objectives before it establishes a perimeter defensive line along the trace of the airhead. It clears the terrain within the airhead of organized enemy resistance and positions forces to secure the airhead line.

C-23. The commander selects assault objectives at the same time as he considers the extent of the airhead. He draws the airhead line to delineate the specific area to seize and designate the airhead. An airhead line resembles a forward edge of the battle area in that security and other forces operate outside of the airhead line. The airhead acts as a base for further operations and as the lodgment to allow the airborne force to build

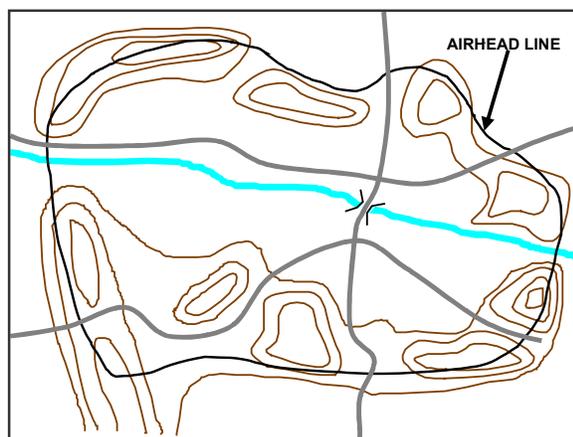


Figure C-2. Airhead Line

up combat power. Once the assault force secures the airhead, it clears all enemy forces within it, not just organized enemy units. The following factors determine the location, extent, and form of the airhead line:

- The actual trace of the airhead line reflects the control of key or critical terrain essential to the mission. (See Figure C-2.) The air-head line should place the arrival airfield and any LZs or DZs out of the range of enemy direct fires and observed indirect fires.
- The airhead line is anchored on obstacles, and the airhead takes advantage of existing natural and man-made obstacles.

- The airhead contains enough DZs, LZs, and EZs to ensure the force has interior LOCs and to permit one massed parachute assault by the entire assault echelon rather than piecemeal insertion.
- The airhead allows enough space to disperse units and supplies to reduce the airhead's vulnerability to nuclear, biological, and chemical weapons if they are a threat.
- The airhead must be large enough to provide for defense in depth, yet small enough for the airborne unit to defend. Although this depends largely on the factors of METT-TC, a battalion can defend an airhead 3 to 5 kilometers in diameter. A brigade can occupy an airhead 5 to 8 kilometers in diameter.

C-24. When assigning boundaries and subordinate AOs in airborne operations, the commander considers several factors beyond those affecting more routine operations. Ideally, each unit's AO should include at least one DZ and one LZ to enable the unit and its attachments to land within its assigned AO during the assault. Each unit's presence also facilitates resupply and evacuation of enemy prisoners of war and casualties. Establishing a LZ and a DZ reduces coordination requirements with adjacent units. The commander assigns boundaries that should not require a unit to defend in more than one direction at the same time. Boundaries should extend as far as necessary beyond forward security forces to coordinate fires. This enables subordinate security units to operate forward of the airhead with minimal coordination. (See Figure C-3.)

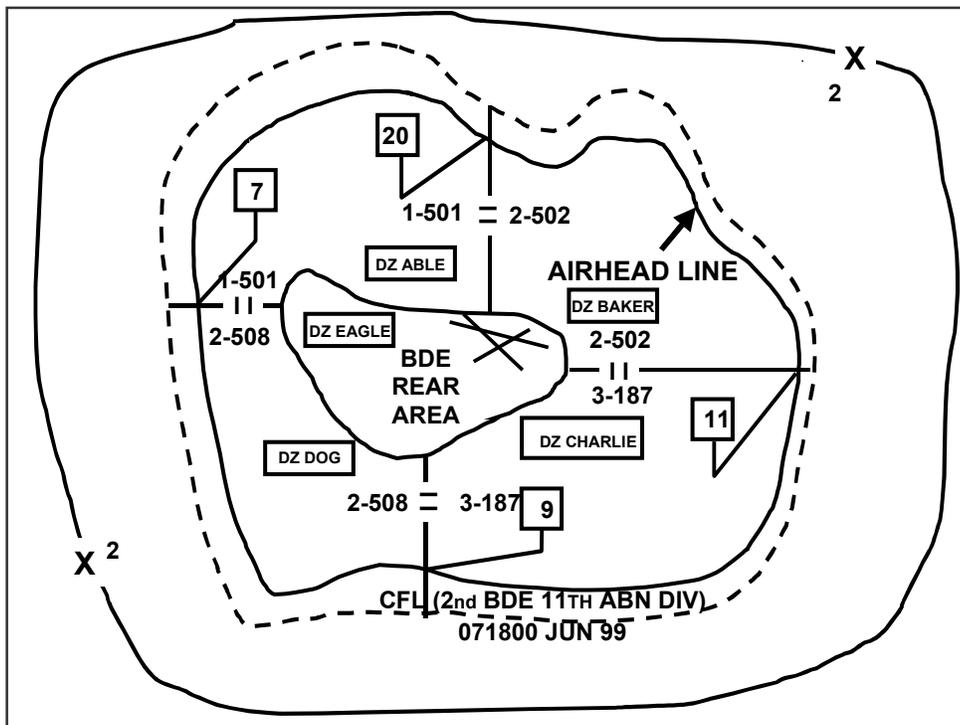


Figure C-3. Boundaries and Fire Support Coordinating Measures for an Airhead

PLANNING CONSIDERATIONS

C-25. The airborne force commander begins planning when he receives an initiating directive or a warning order. JP 3-18 describes the contents of an initiating directive or warning order as including the—

- Mission for subordinate units.
- Higher commander's concept of the operation.
- Command structure for the operation.
- Time and duration of the operation, including D-day and H-hour (execution time).
- Intelligence and security requirements.
- Allocation and distribution of airlift assets.
- Unit deployment list and sequence.
- Departure airfields, remote marshaling bases, and intermediate staging bases.
- Signal requirements and instructions.
- Linkup and withdrawal concept.

C-26. In an airborne operation that envisions an early linkup with conventional ground maneuver forces, the airborne unit defends the airhead until completing the linkup. After linkup, the airborne force either resumes the offensive within the commander's concept of the operation or prepares for subsequent operations. Tactical airborne operations begin with an initial assault followed by independent operations. They then transition to the defense of the established airhead until enough forces can be delivered to the objective area to break out of the established lodgment or linkup with ground forces.

C-27. The flexibility of airborne forces gives the commander wide latitude to select approach routes and objective areas. Airborne forces bypass ground obstacles and enemy positions to strike objectives in otherwise inaccessible areas. The ability of airborne forces to move rapidly and land on or near their objectives increases the element of surprise. It also facilitates the massing of relative combat power because airborne forces can attack the objective from any direction, which leads to the dissipation of the enemy's defenses. The presence of airborne forces also constitutes a threat that affects the enemy's capability to mass. These forces compel him to disperse combat power to protect vital sustainment installations and other key locations.

C-28. The primary prerequisites to conducting successful airborne operations are moving forces to an objective area without incurring unacceptable losses and supplying these forces with the required combat power, CS, and CSS. Steps taken to attain these objectives include—

- Obtain and maintain air superiority.
- Suppress enemy air defense capabilities and ground fires.
- Provide adequate air defense in the marshaling area and en route to and within the objective area.

C-29. In an airborne operation, the commander's primary initial sources of long-range fire support are air support and rocket or missile fires that can range the airhead. Other sources may include naval surface fires. The commander may insert airborne artillery cannon units and attack helicopters to

provide close supporting fires during the initial assault. He may also introduce additional cannon, MLRS, and helicopter assets into the airhead during subsequent phases of the operation.

C-30. The capacity and availability of aircraft limit the size and amount of equipment and supplies available for movement to the objective area. The commander can insert his heavy equipment into the objective area by heavy parachute airdrops or an air landing. The limited number of vehicles in airborne units reduces the unit's tactical mobility in open terrain compared with that of armored and mechanized formations. However, airborne units may gain considerable mobility by using helicopters. Units also make concerted efforts to capture and exploit enemy supplies, equipment, weapons, vehicles, and petroleum, oils, and lubricants (POL).

C-31. Because of the displacement range of forces and the need for air LOCs, airborne operations magnify the problems normally inherent in sustaining a combat force. Therefore, commanders must emphasize planning for resupply, equipment maintenance, casualty evacuation, graves registration, and prisoner of war handling. Prepackaging company- and battalion-size resupply sets can ease these problems when support units must push supplies to the combat units.

C-32. Commanders consider all supplies and equipment required for mission accomplishment as part of their tactical planning. The initial combat requirements dictate the quantities and types of supplies and equipment carried by assault forces in the operation. Commanders ensure that only supplies required to meet the immediate needs of the assault force initially deploy into the objective area. Excess supplies and equipment can constitute a burden on the assault force. Staffs establish and maintain required levels of supply by phasing supplies into the objective area on an accompanying, follow-on (automatic and on-call), and routine basis. Ammunition, water, and POL products normally constitute the major tonnage items in airborne operations.

C-33. As part of the preparation for the airborne operation, soldiers receive briefings on the plan of their unit, adjacent units, and higher echelons including contingencies. It is particularly important that all personnel understand the commander's intent of the next two higher echelons. This helps units or soldiers landing in unplanned areas direct their efforts toward accomplishing the mission.

EXECUTING AIRBORNE OPERATIONS

C-34. Airborne operations may precede, accompany, or follow other types of operations. An airborne unit conducts day or night operations; each has its advantages and disadvantages, such as ease of target acquisition and identification of DZs. Initially, as part of preparatory fires, available fires destroy or suppress enemy systems and units that pose an immediate danger to the airborne assault. Using precision munitions increases the probability of achieving the desired effect. At the same time, it reduces the number of friendly fire support systems required to achieve this effect.

C-35. Executing the ground tactical plan involves initially seizing DZs and LZs in and around an airfield, or actually seizing an airfield. The assault echelon lands as close as possible to its objective by parachute and

immediately assembles. Its initial assault emphasizes the coordinated action of small units to seize initial objectives before the advantage of surprise has worn off. Aggressive small-unit actions characterize this critical phase. Small-unit leader initiative is a key factor in a unit's ability to accomplish the mission. As assault forces seize assault objectives, the airborne force directs its efforts toward consolidating the airhead.

C-36. Tactical surprise and detailed planning should enable units to seize their assault objectives and to establish the airhead before the enemy has time to react in force. This ensures the uninterrupted landing of air-transported troops, equipment, and supplies. The commander changes the missions of his units as necessary in response to the enemy's actions. Units can expect the enemy to launch uncoordinated attacks quickly along major avenues of approach, using his locally available forces. Since the degree of coordination and strength of these attacks increases progressively, the airborne force must develop correspondingly greater strength in its defensive positions and prepare to defend against a mounted counterattack.

C-37. Units assigned to perform reconnaissance and security missions land in early serials so they can establish roadblocks, locate enemy forces, and disrupt enemy communication facilities. Since ground reconnaissance by unit commanders is seldom possible before the airborne operation, it must begin as soon as the unit lands. The flow of information must be continuous. The airborne commander's information requirements do not vary greatly from those of other light force commanders. However, his unit's method of arriving into the combat area makes immediate and thorough reconnaissance and transmission of combat information to higher headquarters necessary.

C-38. If the initial assault objectives are heavily defended, the bulk of the force has the task of seizing them. When initial objectives are lightly defended, the bulk of the force can clear assigned AOs and prepare defensive positions in depth. The commander initiates extensive patrolling as soon as possible between adjacent defensive positions within the airhead line and between the airhead and the forward trace of his security area. He uses his scout helicopters to support this patrolling effort. In most cases, the commander establishes contact with any special operations forces or friendly irregular forces in the area through a special operations command and control element that accompanies the assault force. Advanced ISR and digital C2 systems can assist this process by detecting the location of enemy forces within the airhead line and rapidly disseminating an accurate and timely common operational picture to all command posts involved in the operation. This precludes the necessity of conducting a zone reconnaissance of the entire area within the airhead line by foot mobile soldiers.

C-39. Sufficient communications personnel and equipment must move into the airhead before, (or simultaneously with) the assault command post to ensure the timely installation of vital communications. As soon as communications and the tactical situation permit, the commander establishes—

- Command fire control channels within the airborne forces.
- Communications with supporting air and naval forces.
- Communications with airlift forces concerned with buildup, air supply, and air evacuation.

- Communications with bases in friendly territory.
- Communications between widely separated airborne or ground forces with a common or coordinated mission, such as link-up forces.

C-40. The commander influences the action by shifting or reallocating available fire support means. He may also—

- Move forces.
- Modify missions.
- Change objectives and boundaries.
- Employ reserves.
- Move to a place from which he can best exercise personal influence, especially during the initial assault.

C-41. With initial objectives secured, subordinate units seize additional objectives to expedite establishing a coordinated defense or conducting future operations. The commander then organizes defensive positions, supplements combat net radio communications as required, and establishes a reserve. These, as well as other measures, prepare the force to repel enemy counterattacks, minimize the effects of weapons of mass destruction, or resume the offensive.

C-42. The reserve prepares and occupies defensive positions pending its commitment. The commander commits his reserve to exploit success, take over the mission of a unit delivered to the wrong locations, deal with unexpected opposition in seizing assault objectives, and secure the initial airhead. He reconstitutes a reserve on the commitment of his initial reserve, in accordance with the factors of METT-TC.

C-43. After the force makes the initial assault landing and accomplishes its first missions, the commander must organize his airhead line. The situation dictates how units occupy and organize the airhead line. The commander adjusts the disposition of his units and installations to fit the terrain and the situation. Units take reconnaissance and security measures, which usually include reinforcing the security area. The mission, enemy capabilities, and defensive characteristics of the terrain determine the degree to which the airhead line is actually occupied and organized for defense.

C-44. Introducing follow-on echelon forces in the buildup of the airhead proceeds concurrently with the seizure and organization of the airhead line. The intent of the buildup is to provide a secure operating logistics base for forces working to move the airhead away from the original point of attack. As additional combat troops arrive, they reinforce the airhead defensive positions, secure additional requisite terrain features and maneuver space as required by the mission, constitute reserves, and prepare for offensive operations. Follow-on ground operations exploit the advantages provided by the airhead. After firmly establishing the airhead or lodgment area, or after executing a linkup with ground forces, a higher commander will usually relieve airborne units to allow them to prepare for subsequent airborne assaults. If they cannot be relieved immediately, he provides them with additional combat power and sustainment capabilities.

AIR ASSAULT OPERATIONS

C-45. *Air assault* operations are those in which assault forces (combat, combat support, and combat service support) using the firepower, mobility, and total integration of helicopter assets, maneuver on the battlefield under the control of the ground or air maneuver commander to engage and destroy enemy forces or to seize and hold key terrain (FM 3-97.4). They are often high-risk, high-payoff operations.

C-46. An air assault task force (AATF) can dramatically extend the commander's ability to influence operations within his AO and to execute operations in locations beyond the capability of more conventional forces. The air assault force retains the flexibility to rapidly redeploy to conduct subsequent offensive or defensive operations. Air assault operations closely resemble airborne operations. Air assault forces are most vulnerable during the takeoff from PZs and the landing at LZs in unsecured areas.

C-47. The assault force uses the firepower, mobility, and total integration of helicopter assets to maneuver throughout the AO. Its purpose is to engage and destroy enemy forces or to seize and hold key terrain. Joint doctrine regards air assault operations as a subset of airborne operations. Air assault operations are not administrative movements of soldiers, weapons, and materiel by Army aviation units. An air assault is a deliberate, precisely planned, and vigorously executed combat operation designed to allow friendly forces to strike over extended distances and terrain barriers to attack the enemy when and where he is most vulnerable. The commander plans these operations using the previously described reverse planning process. (The primary references for air assault operations are FMs 3-04.113 and 3-97.4.)

C-48. The substantial mobility of an air assault force enables its commander to achieve surprise and deception and to conduct operations throughout his AO. However, air assault operations conducted in locations geographically remote from supporting forces may place the air assault force at increased risk if its ISR systems do not accurately detect enemy forces positioned to disrupt the air assault. Air assault units are well suited for use as reaction forces and in search and attack operations when information about the enemy's location, strength, and disposition is vague.

C-49. The large-scale use of helicopters in air assault operations greatly multiplies the mobility of ground units and contributes directly to an increase in combat effectiveness. Their use allows the ground commander to take advantage of the speed and flexibility of Army aircraft to accomplish a variety of tasks. For example, during a river-crossing operation, an air assault can help secure the crossing site or bridgehead line.

ORGANIZATION OF FORCES

C-50. Air assault operations employ AATFs. An AATF is a combined arms force specifically designed to hit fast and hard. It is under the command of a single headquarters. Tactical commanders use an AATF in situations that provide a calculated advantage because of surprise, terrain, threat, or mobility. An AATF consists of infantry, attack helicopters, fire support, electronic warfare, and logistic assets. The ground or air maneuver commander is designated as the AATF commander.

C-51. The lowest-echelon headquarters capable of controlling and coordinating the entire air assault operation exercises control of the aircraft in accordance with the overall plan. As a minimum, this is normally a battalion headquarters. This headquarters must coordinate airspace with other users, including artillery, air defense, air support, and other Army aviation units. It must also coordinate the air assault force's plans for maneuver and logistics with those of higher, subordinate, and adjacent units.

C-52. The airlift unit is either in direct support of the ground combat unit or under the operational control (OPCON) of the AATF. The AATF commander determines—with the air mission commander's input—when the OPCON relationship begins and ends. The commander does not attach the airlift unit to the AATF, because it is unlikely that a ground unit can control the aviation unit and supply the aviation-specific munitions and large amounts of fuel required by aviation units. Direct support (DS) and OPCON command relationships place no logistics responsibility for the supporting unit on the supported unit. Consequently, DS or OPCON is usually the desired relationship between air and ground units in air assault operations.

CONTROL MEASURES

C-53. The control measures that apply to an airborne operation also apply to an air assault operation. As a minimum, the commander assigns each subordinate unit an AO. The AATF and aviation staffs select LZs that support the ground tactical plan and offer the best survivability for the AATF. As in airborne operations, designating LZs within the unit's AO simplifies the provision of additional support to the unit. The AATF commander also uses assault objectives and the airhead line to focus the efforts of his subordinates. As necessary, the commander uses those attack control measures introduced in Chapter 5 to help control the force's maneuver once it enters the AO.

C-54. In air assault operations, the commander makes extensive use of Army airspace command and control (A2C2) measures to control the movement of the assault, attack, special electronic mission, and cargo aircraft. For example, [Figure C-4](#) on page C-14 shows flight routes as depicted on an overlay. (FM 3-52 details A2C2 measures.)

PLANNING CONSIDERATIONS

C-55. Integrating aviation and infantry does not fundamentally change the nature of combat operations. The air assault force continues to fight as a combined arms team. However, the tempo and distance involved in such operations change dramatically. Missions normally assigned to an AATF should take advantage of its superior mobility. However, the commander should not employ an AATF without a detailed resupply plan in operations that require sustained ground combat. Once the air assault is complete, the aviation unit can continue to support the infantry by conducting aerial movement of systems and critical supplies.

C-56. There are several basic air assault planning operational guidelines—

- Assign a mission that takes advantage of the AATF's mobility.
- Task organize the AATF as a combined arms team.
- Ensure the air assault plan supports the AATF commander's intent.

- Allow extra time for planning and preparing for limited-visibility and adverse weather air assaults.
- Maintain small-unit integrity throughout the air assault to ensure the ability to fight as a cohesive unit immediately upon landing.
- Plan and posture fire support to provide suppressive fires along flight routes, on LZs, and on enemy air defense systems.

C-57. The foundation of a successful air assault operation is the commander's ground tactical plan. The AATF staff prepares this plan based on input from all task force elements. All aircrews must be familiar with the ground tactical plan and the ground commander's intent.

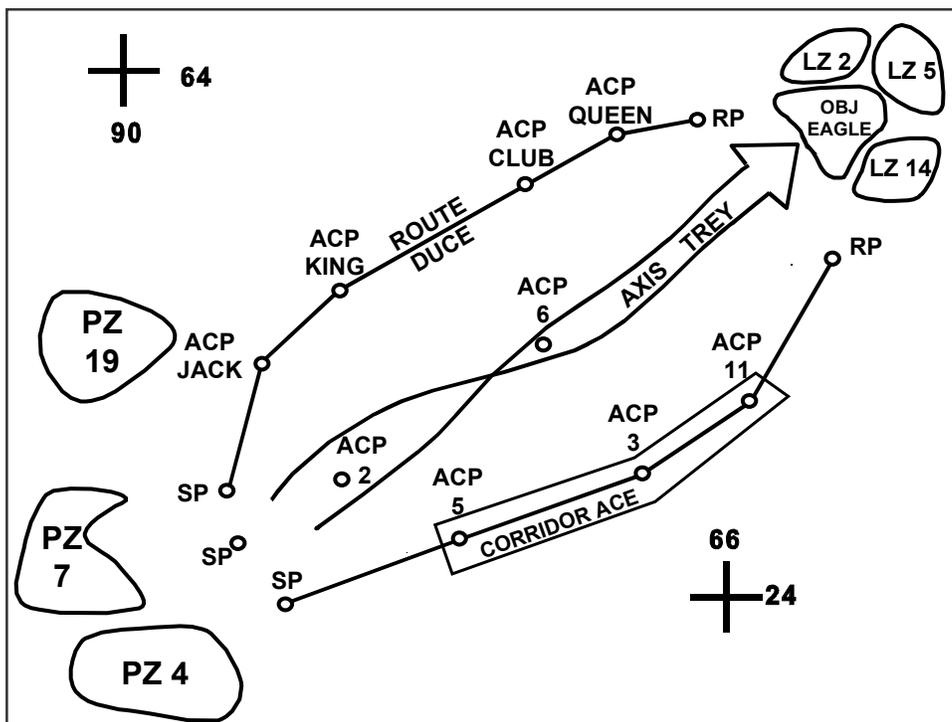


Figure C-4. Flight Routes Depicted on an Overlay

C-58. The ground tactical plan for an air assault operation comprises essentially the same elements as any other infantry attack but differs in the requirements for speed and mobility. The plan places task-organized assault units on or near the objective so they are capable of seizing objectives immediately and consolidating quickly. If the commander cannot introduce adequate combat power quickly into the objective area, the air assault force must land away from the objective and build up combat power. This force then assaults like any other infantry unit; however, this diminishes the effectiveness of the air assault operation. The scheme of maneuver may take many forms depending on the situation and the factors of METT-TC.

C-59. The ground tactical plan addresses—

- Assault objectives for subordinate elements.

- Designating the LZs available for each subordinate element, considering the distance from each unit's LZ to the assault objective.
- D-day and H-hour.
- Special tasks.
- Task-organization and command relationship of all organic and supporting units.
- Fire support during the assault, such as close air support, field artillery, mortars, and jammers.
- Flight corridors.
- Air defense suppression.
- Subsequent operations, such as defense, linkup, and withdrawal.
- Enemy locations, including air defense positions and type.
- Combat service support.

C-60. To achieve tactical surprise, the commander may decide to make the initial assault without preparatory fires. However, he always plans fires to support helicopter assault and combat operations on each LZ so that they are rapidly available if needed. These fires are normally short with a high volume to maximize surprise and shock effect. All indirect fires should end just before the first assault element lands. The commander uses attack helicopters to suppress and destroy enemy systems during the interim between when indirect fires stop impacting and the initial assault element lands and prepares to conduct operations. Fire support planning provides suppressive fires along flight routes and near LZs to help ensure the air assault unit lands as planned. The commander normally assigns a high priority to the suppression of enemy air defense systems. The location of those systems is critical information needed by the commander.

C-61. A unit maintains its tactical integrity throughout the air assault. All members of a squad load onto the same aircraft, and platoons are in the same serial. Both ensure unit integrity upon landing. The commander cross-loads key weapons, ammunition, and command groups to ensure that the loss of one aircraft does not result in losing a given weapon system or disrupting the chain of command.

C-62. The ground commander uses aviation resources to the maximum degree of effectiveness. He should not retain aircraft under his direct control without viable aircraft mission requirements. The air mission commander must have the flexibility to shift idle aircraft to support other combat units, conduct required maintenance, or allow for crew rest. Plans to commit preplanned reaction forces should include provisions for their airlift to be on standby or alert status. The AATF commander makes the decision to release supporting aviation resources. The air mission commander ensures that the AATF commander is aware of subsequent or competing missions for his aviation resources. At times, the AATF commander may need to retain aviation support beyond the original time planned. In this case, he must inform higher headquarters immediately. The air mission commander continues to provide aircraft support until the AATF commander releases his unit.

C-63. The commander plans and organizes his CSS operations to support a rapid tempo of highly mobile and widely dispersed operations. Traditional

doctrinal supporting distances and support responsibilities do not always apply to air assault operations. The air assault logistics planner recognizes this from the outset and adapts the plan using available resources. Just as the commander tailors the AATF for combat operations by air, the logistics system must tailor itself to support by air. Medical evacuation, resupply, and reinforcement airlifts may be necessary to sustain the force's combat operations. Lift restrictions limit what can enter the airhead by helicopter. However, careful planning by the aviation staff provides methods for inserting reinforcements and most equipment lines and supplies.

EXECUTING AIR ASSAULT OPERATIONS

C-64. At the prescribed time, units move from the assembly area to the holding area via a route designated by the AATF commander. Each unit commander notifies the PZ control party when his unit arrives in the holding area. The PZ control officer (PZCO) coordinates the arrival of aircraft and troops so that they arrive at their respective loading points just before the aircraft land. This prevents congestion, facilitates security, and reduces vulnerability to enemy actions during PZ operations.

C-65. When the aircraft are loaded and ready, the PZCO signals the flight leader. Lift-off should be at the time prescribed in the air-movement table. However, aircraft will not loiter in the PZ. If they are early, they lift off and later speed to cross the start point (SP) or first ACP on time.

C-66. The air movement commander predetermines the enroute flight speed, and the flight leader paces the flight to ensure it crosses the SP on time. Commanders remain oriented throughout the flight by following and verifying the flight route using terrain observation, maps, global positioning systems, and other aids.

C-67. Attack helicopters and air cavalry assets assist in providing security for the air assault force. Under the control of the air mission commander, these helicopters provide reconnaissance of the routes and LZs, provide security for the lifting helicopters en route to the LZ, and protect the lifted ground maneuver force as it assembles on the LZs and moves toward its objective. At the conclusion of the air assault phase of the mission, attack helicopters may remain OPCON to the ground maneuver force and provide reconnaissance and security operations in the objective area.

C-68. After passing the release point (RP), serials proceed to assigned LZs. The commander uses the RP crossing to time the lifting and shifting of fire support assets. The RP is also where aircraft shift to LZ formation (if required) and the commander initiates preparatory fires.

C-69. Incendiary ordnance is not normally used on an LZ and its immediate vicinity just prior to landing because foliage fire and smoke could endanger aircraft or hamper the mission. However, helicopters equipped with smoke generators can provide a smoke screen.

C-70. The AATF lands as planned unless last-minute changes in the tactical situation force the commander to abort or alter the landing. Aviation crews keep soldiers in their aircraft informed of the situation, especially of any changes to the original plan. The commander wants his unit to land

simultaneously to place the maximum number of soldiers on the ground in a given area in the shortest possible time. Individual soldiers are most vulnerable during landing; they disembark rapidly and deploy to carry out assigned missions.

C-71. At the LZ, leaders at each command echelon account for all personnel and equipment and submit appropriate reports to higher headquarters. After the unit completes its consolidation of the LZ, the commander reorganizes it as necessary. The ground combat operations of an air assault unit are no different from those conducted by other infantry units.

Appendix D

Encirclement Operations

When the enemy is driven back, we have failed, and when he is cut off, encircled and dispersed, we have succeeded.

Field Marshal Prince Aleksander V. Suvorov

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

OFFENSIVE ENCIRCLEMENT OPERATIONS

D-1. The commander intends offensive encirclements to isolate an enemy force. Typically, encirclements result from penetrations and envelopments, or are an extension of exploitation and pursuit operations. As such, they are not a separate form of offensive operations but an extension of an ongoing operation. They may be planned sequels or result from exploiting an unforeseen opportunity. They usually result from the linkup of two encircling arms conducting a double envelopment. However, they can occur in situations where the attacking commander uses a major obstacle, such as a shoreline, as a second encircling force. Although a commander may designate terrain objectives in an encirclement, isolating and defeating enemy forces are the primary goals. Ideally, an encirclement results in the surrender of the encircled force. This minimizes friendly force losses and resource expenditures.

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ORGANIZATION OF FORCES

D-2. An encirclement operation usually has at least two phases—the actual encirclement and actions taken against the isolated enemy. The commander should consider adjusting his task organization between phases to maximize his unit’s effectiveness in each phase. The first phase is the actual encirclement that results in the enemy force’s isolation. The organization of forces for an encirclement is similar to that of a movement to contact or an envelopment. The commander executing an encirclement operation organizes his forces into a direct pressure force and one or more encircling arms. Armor, mechanized and motorized infantry, aviation, air assault, and airborne units are especially well suited for use as an encircling arm since they have the tactical mobility to reach positions that cut enemy lines of communications (LOCs). The presence of bypassed and encircled enemy forces on the flanks and rear of advancing friendly forces requires all-around security, which includes local security measures and security forces.

D-3. One commander should direct the encirclement effort. However, there must also be unity of command for each encircling arm. The encircling force headquarters may name one of its subordinate units as the headquarters for an encircling arm. Alternatively, that force headquarters may create a temporary command post from organic assets, such as its tactical command post, to control one or more arms of the encirclement. If that encircling arm has subordinate inner and outer arms, each of them also requires separate subordinate commanders. The missions and spatial orientation between the inner and outer encircling arms are sufficiently different; therefore, one force cannot act in both directions at once. (See Figure D-1.)

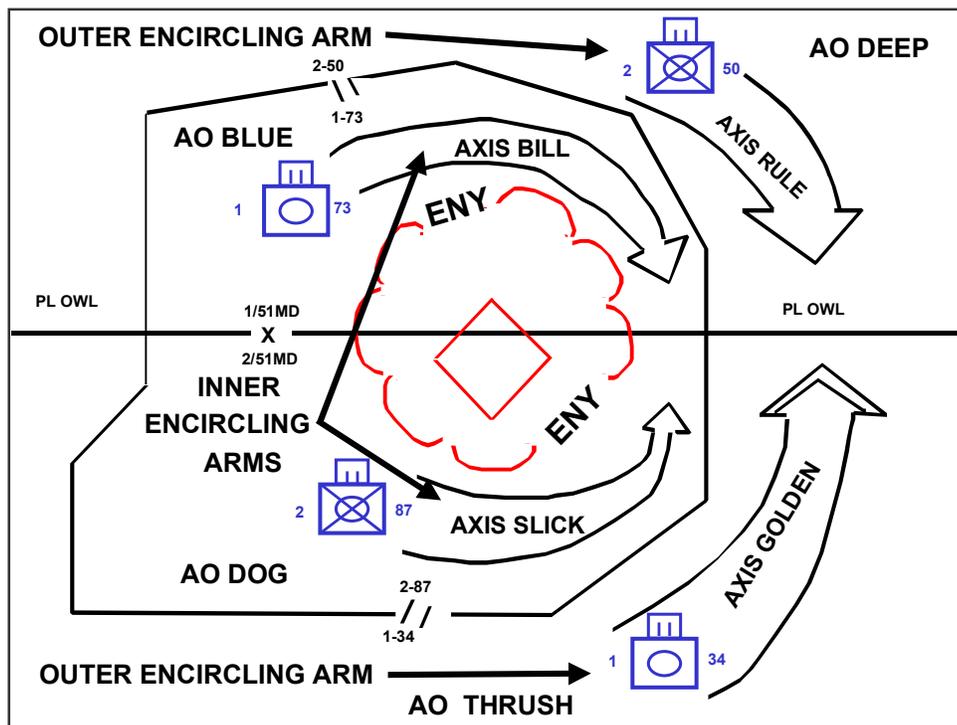


Figure D-1. Inner and Outer Arms of an Encirclement

D-4. The commander organizes only an inner encircling arm if there is no possibility of the encircled forces receiving relief from enemy forces outside the encirclement. If there is danger of an enemy relief force reaching the encircled enemy force, the commander organizes both inner and outer encircling arms. He assigns the outer encircling arm a security mission, an offensive mission to drive away any enemy relief force, or a defensive mission to prevent the enemy relief force from making contact with the encircled enemy force. Once the encirclement is complete, these inner or outer encircling arms form a perimeter.

D-5. The second phase of an encirclement operation involves actions taken against an isolated enemy. The commander's decision on whether to fix, contain, or destroy isolated enemy forces affects his task organization, as will enemy attempts to break out from the encirclement or linkup with the encircled force. All these possible outcomes require resources in terms of units and supplies, but some require more resources than others do. If the commander's mission is to contain or fix an isolated enemy, he organizes his forces for defensive action and arranges them around the enemy's perimeter. If the commander's mission is to reduce or destroy that same enemy, he organizes his forces for offensive action. A higher commander often assigns either mission to the commander of a follow-and-support force.

D-6. Regardless of whether the commander decides to fix, contain, or destroy the enemy, he conducts reconnaissance to maintain contact and monitor enemy actions in response to the encirclement. This allows him to respond effectively to any enemy movement. The most effective reconnaissance combines ground, aerial, and surveillance systems to provide constant coverage and multiple assessments of enemy activities throughout the encircled area.

CONTROL MEASURES

D-7. Control measures for an encirclement are similar to those of other offensive operations, especially an envelopment, but with a few additional considerations. (See [Figure D-2](#).) If the commander uses both an inner and an outer encircling arm, he must establish a boundary between them. He should place the boundary so that each element has enough space to accomplish the mission. The inner force must have enough space to fight a defensive battle to prevent the encircled force from breaking out. The outer force must have adequate terrain and enough depth to its area of operations (AO) to defeat any attempt to relieve the encircled force.

D-8. The commander who controls both converging forces establishes a restricted fire line (RFL) between them. The commander may also establish a free fire area (FFA), which encloses the area occupied by a bypassed or encircled enemy forces. ([Chapter 2](#) discusses the use RFLs, FFAs, and other fire support coordinating measures.)

PLANNING AN ENCIRCLEMENT

D-9. Encirclement operations may require allocating large forces and significant resources. They take a great deal of time and usually slow an advance. If the mission of the encircling force is to maintain contact with a bypassed enemy force, the following general planning considerations apply:

- Determine the best available assets that gain and maintain contact with the enemy.
- Keep the enemy isolated and incapable of receiving intelligence, logistics, and fire support from enemy formations outside of the encirclement.
- Use intelligence, surveillance, and reconnaissance (ISR) assets so that the commander knows the capabilities of the encircled force and, as much as possible, its commander's intentions.
- Retain freedom of maneuver.

D-10. The commander applies the general defensive planning considerations outlined in Chapter 8 if the mission is to contain or fix the encircled enemy force in a given location. If the mission is to attack and destroy the encircled enemy force, he applies the planning considerations outlined in Chapters 3 and 5. Commanders should plan to rotate the forces involved in reducing the encircled pocket to maintain constant pressure on the enemy.

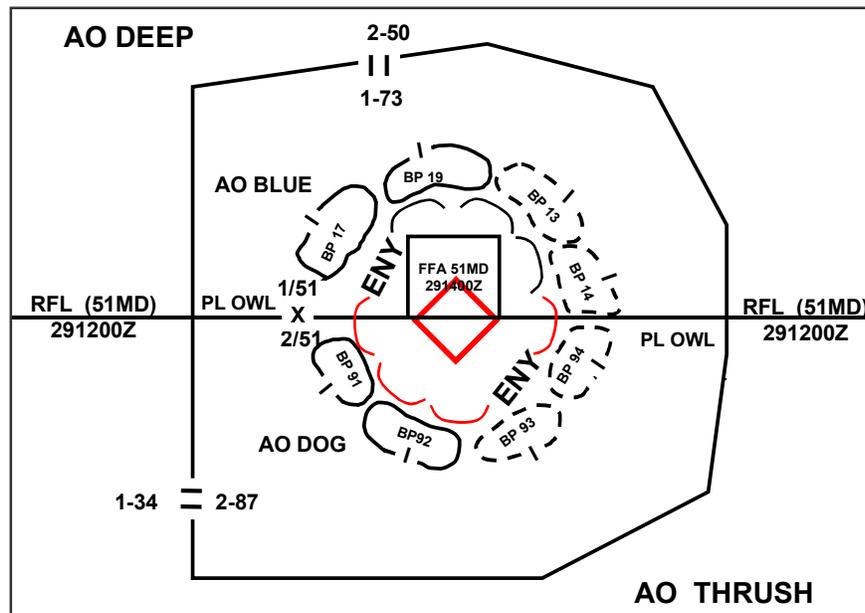


Figure D-2. Encirclement Control Measures

D-11. Every encircled enemy unit reacts differently. Initially, some become demoralized and cannot offer any serious resistance. However, if left undisturbed, most enemy units recover and attempt to break out and regain contact with their main force or attack the flank and rear of advancing friendly units. The encircling force must plan for the enemy's most probable reactions.

D-12. If the enemy force is not reduced and it can be resupplied, or it has access to considerable supply stocks, it continues to be a serious threat to the commander in future operations. The encircling force must be approximately equal in size to this type of encircled force to fix or contain it. This situation occurred when German forces occupied various fortified French ports after Allied armies liberated the rest of France in 1944. Each encircled German

division took approximately one Allied division to maintain its isolation. Conversely, an enemy force isolated without adequate supplies either surrenders or faces containment by considerably smaller forces. This situation occurred in Egypt during the 1973 Arab-Israeli War when an Israeli division isolated the Egyptian 3rd Army. Planning considerations for the linkup of encircling forces, such as command and control relationships, are outlined later in this appendix.

EXECUTING AN ENCIRCLEMENT

D-13. When feasible, the encircling force advances parallel to the enemy's direction of movement. It attempts to reach defiles, bridges, and other critical points before the main enemy force reaches them. When the encircling force cannot outdistance the enemy, it engages his flanks to force him to fight under the most unfavorable conditions possible, ultimately in two or more directions simultaneously. Engineer units rapidly breach obstacles in the path of the encircling force. Friendly forces emplace obstacle complexes, supported by fires, to block probable avenues of escape as they counter attempted enemy breakouts from encirclement. The commander may use air assault and airborne forces to seize defiles or other critical terrain objectives to cut enemy LOCs. He completes the encirclement when all enemy ground LOCs are cut. This generally occurs when the two arms of a double envelopment complete their linkup.

D-14. A commander usually creates intervals between the advancing units of an enveloping force to provide protection from enemy weapons of mass destruction (WMD). They can also occur during combat operations as the result of different rates of advance by combat formations that face dissimilar degrees of enemy resistance and different terrain. The encircled enemy attempts to discover intervals and take advantage of them as he tries to escape from or breakout of the encirclement. Once the enveloping force completes the linkup that actually creates the encirclement, it must close these intervals as quickly as possible to prevent the enemy from exploiting them.

D-15. The enemy may attempt to cut off the encircling force and extend his flank beyond the area of the friendly attack. If the commander attempts to outflank such a hostile extension, it may lead to his own overextension or to a dangerous separation of the enveloping force from support. It is usually better to take advantage of the enemy's extension and subsequent weakness by penetrating his thinly held front rather than overextending in an effort to completely outflank his position. Alternatively—in response to the unfolding encirclement—the enemy may attempt a frontal, spoiling attack. In this case, the friendly force in contact defends itself or engages in a delaying operation while the enveloping force continues the envelopment or moves directly toward the enemy force in a counterattack.

D-16. The commander of a highly mobile force forming the inner encircling arm may choose not to establish a continuous series of positions around an encircled enemy. He may order his forces to occupy only key terrain from which they can strike at the encircled enemy to prevent him from concentrating forces and to further isolate him. To effectively isolate the enemy, a commander who adopts this technique must be able to detect enemy attempts to breakout and concentrate sufficient combat power against these attempts to

thwart them. The commander of the outer encircling arm prevents additional enemy forces from reinforcing the isolated enemy force or interfering with the activities of the inner encircling arm.

D-17. Other operations may result in the encirclement of enemy forces. These include offensive operations that bypass large enemy forces to maintain the momentum of the force. Reconnaissance and security missions conducted by the main body must focus on detecting and reporting bypassed units. The main body should conduct these missions not only to its flanks, but also to its rear to discover if enemy forces move in behind them. Unit ISR assets should watch for measures taken by the enemy's main body to relieve or assist its bypassed or encircled forces.

D-18. Once the commander decides to destroy an encircled enemy force, he reduces the enemy as rapidly as possible to free resources for use elsewhere. The reduction of an encircled enemy force should continue without interruption, using the maximum concentration of forces and fires, until the encircled enemy force's complete destruction or surrender. A commander may destroy encircled enemy forces by fires alone or by a combination of fire and movement. The five main methods for reducing an encircled enemy are fire strike, squeeze, hammer and anvil, wedge, and escape route.

D-19. A **fire strike is the massed, synchronized, and nearly simultaneous delivery of precision-guided munitions.** It is the preferred method for destroying an encircled enemy force. The initial targets for these munitions are systems that present the greatest danger to the encircling force, such as the enemy's WMD, command posts, fire support and air defense systems, and field fortifications. However, the commander's ability to use precision-guided munitions in mass may be limited by the ability of the combat service support (CSS) system to supply them. Therefore, fixed-wing and rotary-wing aircraft and conventional artillery continue to play an important role in the destruction of encircled forces. The commander also conducts offensive information operations—such as psychological operations (PSYOP) and electronic warfare (EW)—against the encircled enemy force. In some situations, fire strikes result in the rapid destruction of the encircled enemy. However, destruction is not guaranteed. In most cases, reducing the enemy pocket requires using ground maneuver forces.

D-20. The squeeze technique uses simultaneous, coordinated blows on the enemy from various directions. (See Figure D-3.) Following the initial encirclement, the capture or destruction of the enemy force is methodical and thorough. The commander uses fire and movement together in a controlled contraction of the encirclement. As the enemy's perimeter contracts, the commander removes units from the inner perimeter and adds them to his reserve depending on the terrain and other factors of METT-TC. This technique is effective against battalion or smaller groups of encircled enemy forces.

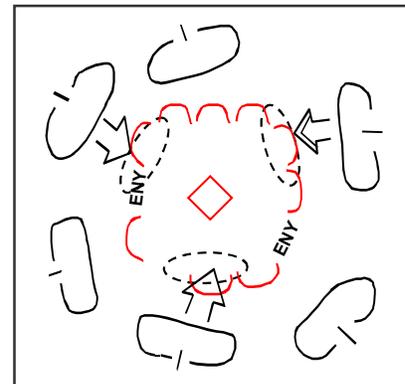


Figure D-3. Squeeze Technique

D-21. The squeeze technique promotes the enemy's confusion and rapid dispersion of combat power and prevents him from using his reserves in a decisive manner. The commander should shape the operation by initially concentrating on destroying enemy command nodes, air defense systems, artillery systems, and CSS capabilities. These CSS capabilities include any drop zones, landing zones, or airstrips available to the enemy that would allow him to receive support from outside the encirclement.

D-22. The hammer and anvil technique employs a stationary blocking force as an anvil on one or more sides of the inner perimeter while other elements of the encircling force use offensive action as a hammer to force the encircled enemy force against the blocking force. (See Figure D-4.) Either the anvil or the hammer can destroy the enemy. Usually the hammer, as the attacking element, accomplishes this task. This technique is most effective when the blocking force is located on or to the rear of a natural terrain obstacle. On favorable terrain, an airborne or air assault force can be used as an anvil or a blocking element.

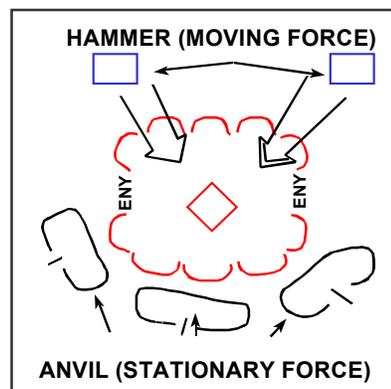


Figure D-4. Hammer and Anvil Technique

D-23. The wedge technique uses a unit to divide enemy forces within the pocket while the rest of the encircling force remains in place. (See Figure D-5.) This technique allows the commander to concentrate against a small portion of the encircled enemy. However, the encircling force must maintain pressure on other encircled enemy forces to prevent them from reinforcing or supporting the threatened area. It is important that the unit dividing the pocket conduct sudden and swift attacks immediately after the end of supporting preparatory fires.

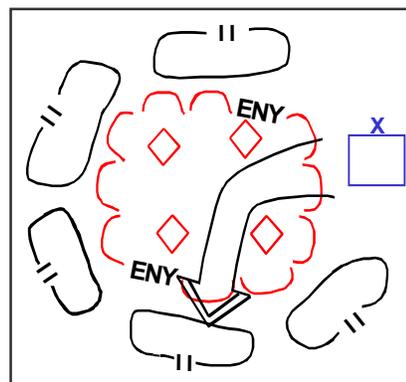


Figure D-5. Wedge Technique

D-24. The escape route technique involves leaving one or more gaps in the inner encircling arm to entice the enemy to attempt a breakout. Once the enemy starts moving, and is no longer sheltered in defensive positions, he is more vulnerable to acquisition, attack, and destruction. A commander using this technique should use PSYOP and constant offensive action to demoralize the escaping enemy force.

D-25. The negative aspect of these techniques is that they require considerable forces and supplies, which are not always available. Therefore, at times the encircling force has to limit itself to less decisive measures. These include temporarily containing or fixing bypassed enemy forces until resources become available to enable the encircling force to destroy the enemy. Continued isolation of the encircled force can only be guaranteed when the enemy cannot strengthen his forces by inserting additional units and supplies by air.

Even total, long-term isolation does not necessarily lead to decisive defeat of the encircled enemy. It is a temporary measure designed to provide the attacking force additional time.

DEFENDING ENCIRCLED

D-26. An encircled force can continue to defend encircled, conduct a breakout, exfiltrate toward other friendly forces, or attack deeper into enemy-controlled territory. The commander's form of maneuver once his unit becomes encircled depends on his senior commander's intent and the factors of METT-TC, including the—

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

D-27. Encirclement of a friendly force is likely to occur during highly mobile fluid operations, or when operating in restricted terrain. A unit may find itself encircled as a result of its offensive actions, as a detachment left in contact, when defending a strong point, when occupying a combat outpost, or when defending an isolated defensive position. The commander must anticipate becoming encircled when he has a mission as a stay-behind force, or when he occupies either a strong point or a combat outpost. He must then make the necessary preparations.

D-28. The senior commander within an encirclement assumes command over all encircled forces and takes immediate action to protect them. In the confusion leading to an encirclement, it may be difficult to even determine what units are being encircled, let alone identify the senior commander. However, the senior commander must be determined as quickly as possible. When that commander determines he is about to be encircled, he must decide quickly what assets stay and what assets leave. He immediately informs his superior of the situation. Simultaneously, he begins to accomplish the following tasks:

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

D-29. The commander positions his security elements as far forward as possible to reestablish contact with the enemy and provide early warning. Vigorous patrolling begins immediately. Each unit clears its position to ensure that there are no enemy forces within the perimeter. Technical assets, such as JSTARS and EW systems, augment local security and locate those areas along the perimeter where the enemy is deploying additional forces.

D-30. The commander reestablishes unity of command. He reorganizes any fragmented units and places soldiers separated from their parent units under the control of other units. He establishes a clear chain of command throughout the encircled force, reestablishes communications with units outside the encirclement, and adjusts support relationships to reflect the new organization.

ORGANIZATION OF FORCES

D-31. The commander of the encircled force establishes a perimeter defense. (Chapter 8 discusses conducting a perimeter defense.) He must be aware of the unique capabilities and limitations of the different units within the encirclement. Therefore, he designs his defense to maximize the capabilities of his available forces. Forward units establish mutually supporting positions around the perimeter and in depth along principal avenues of approach. Units occupy the best available defensible terrain. It may be necessary to attack to seize key or decisive terrain so that it is incorporated within the perimeter defense. Once the commander assigns defensive AOs and battle positions, preparations are the same as in the defense. (See Figure D-6.) Encircled units make their defensive positions as strong as possible given time and resource constraints. The defensive scheme must anticipate that the enemy will attempt to split the defenses of the encircled force and defeat it in detail.

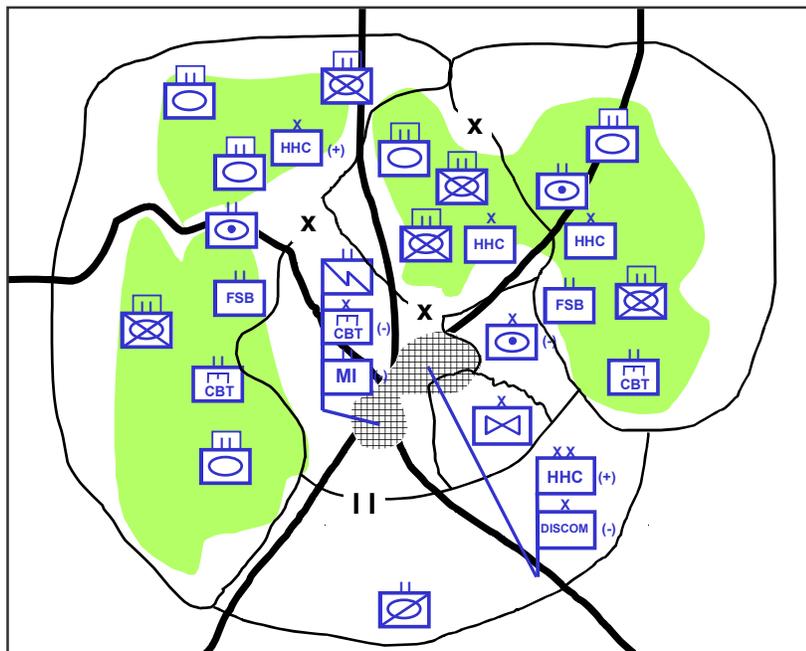


Figure D-6. Encircled Armor Division's Perimeter Defense

D-32. The encircled force commander establishes a reserve, which must have sufficient mobility to react in a timely manner. Therefore, given the availability of sufficient fuel, the commander uses armored and mechanized infantry units as his reserve. He centrally positions them to take advantage of interior lines, which exist if he can shift his forces' locations or reinforce faster than the enemy can shift location or reinforce. He can achieve interior lines through central position (with operations diverging from a central point), from superior lateral LOCs, or greater tactical mobility. If only dismounted infantry forces are available, the commander should establish small local reserves to react to potential threats. He organizes a mobile antiarmor element from the best available antiarmor systems. If possible, subordinate echelons should also retain a reserve.

D-33. While defending encircled, the commander may use his reserve to limit penetrations along the perimeter. It may conduct spoiling attacks or vigorous counterattacks. He initiates a counterattack at the decisive moment and location as the enemy force attempts to penetrate the defensive positions.

BOS CONSIDERATIONS

D-34. Divisions and corps may consider relocating their aviation systems to locations that are not encircled. Aviation can rapidly bring additional firepower to bear on the encircling enemy force or rapidly move reaction forces to threatened locations along the defensive perimeter. Generally, aviation assets fly out of the encirclement when it becomes small enough to allow the enemy's artillery to range throughout the area.

D-35. The commander centrally controls his fire support systems, such as artillery, to provide support at numerous points along the perimeter and mass the effects of his fires. Designating a fire support coordinator for all fire support systems is a technique for centrally controlling his fires. At lower levels, mortars from various units may be co-located under centralized control, especially if there are insufficient artillery assets. The encircled commander also centrally controls his air defense assets, ensuring that the forward units have sufficient short-range air defense coverage.

D-36. Generally, engineers concentrate first on countermobility, then survivability. An encircled force is particularly vulnerable to the enemy's use of WMD. Dispersal is difficult in a perimeter-type defense; therefore, the next best alternative is position hardening by constructing field fortifications.

D-37. Encircled units must closely monitor their logistic assets, especially if they cannot be resupplied for an extended period. Conservation and centralized control of available resources are imperative. The commander may force his forward units to virtually cease all vehicle movement to allocate remaining fuel assets to the reserve. He retains essential CSS capabilities to sustain his operations. They fall under the control of a senior logistician. When possible, the commander positions these units and their assets out of the reach of potential penetrations in protected and concealed locations. He may incorporate other CSS units into defensive positions in depth or around key facilities. He may choose to use soldiers from CSS units as fillers for combat units, although this action may affect his sustainment capabilities.

D-38. Casualty evacuation and mortuary affairs pose particular challenges for the encircled force. The commander evacuates his wounded from the encirclement whenever possible for humanitarian reasons. This also reduces the logistic burden of providing long-term medical care to wounded soldiers.

D-39. Soldiers have an inherent fear of being encircled by the enemy. Unchecked, this fear can lead to a degradation in morale and discipline. When encircled, soldiers under the firm control of their leaders can withstand the mental strain. Discipline can disintegrate rapidly in an encirclement. Officers and NCOs must uphold the highest standards of discipline. Their personal conduct sets the example. The commander must be seen frequently by his troops and display a calm and confident manner.

D-40. Soldiers in the encirclement must not regard their situation as desperate or hopeless. Commanders and leaders at all levels maintain the confidence of soldiers by resolute action and a positive attitude. They must keep soldiers informed to suppress rumors. The commander counters enemy PSYOP by conducting defensive information operations.

BREAKOUT FROM AN ENCIRCLEMENT

D-41. A breakout is an offensive and a defensive operation. An encircled force normally attempts to conduct breakout operations when one of the following four conditions exist:

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

ORGANIZATION OF FORCES

D-42. Units typically task organize into a rupture force, follow-and-assume force, main body, rear guard to conduct a breakout attack. (Figure D-7). If sufficient forces exist within the encirclement, the commander can organize a reserve and a separate diversionary force from his available resources. Some encircled units will be weakened, and if sufficient combat power does not exist to resource each of these forces, the commander must prioritize

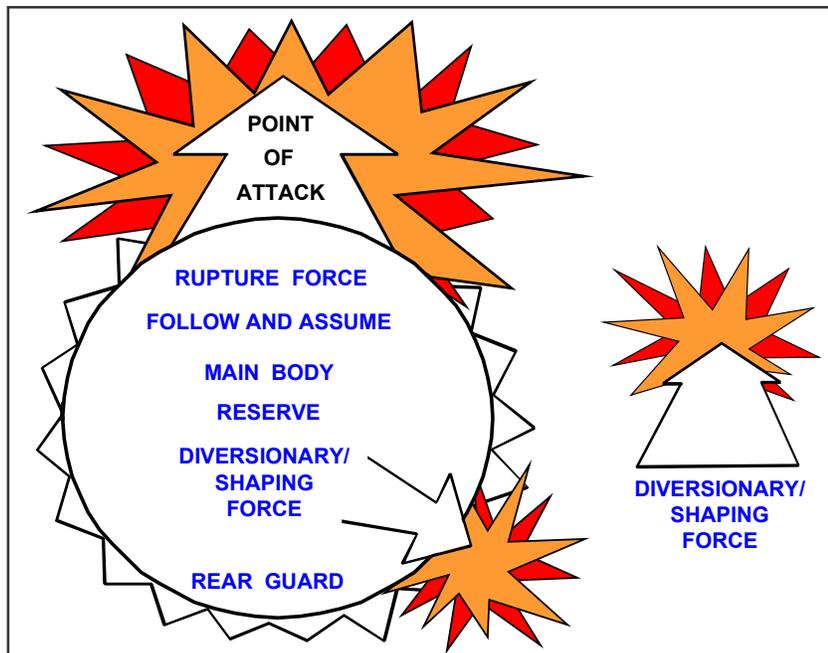


Figure D-7. Organization of Forces for a Breakout Operation

which ones to resource. Normally, his first priority is to resource the rupture force. He assigns the responsibilities of those unresourced forces to the forces he can resource. For example, the follow-and-assume force could receive a be-prepared mission to help extract the rear guard, a mission generally given to the reserve. Forces located outside the encirclement can assist the breakout by conducting shaping operations. Above all, the encircled force must maintain the momentum of the attack; otherwise, it is more vulnerable to destruction than it was before the breakout attempt.

D-43. The force must reorganize based on available resources to conduct the breakout. Without resupply, armored and mechanized infantry units may not be able to move all of their vehicles during the breakout attack. Priority of support may be limited to the rupture force and the rear guard, with the remaining force keeping only sufficient transportation assets to move the wounded and critical assets and supplies. The breakout plan should outline the commander's destruction criteria for equipment or supplies left behind. All vehicles, critical munitions and other supplies, and equipment—less medical—that cannot be moved should be destroyed as soon as possible.

D-44. An encircled force attacks by using the rupture force to penetrate the enemy defensive positions in at least one location. The commander must produce overwhelming combat power at each breakout point. The commander assigns the rupture force, which varies in size from one-third to two-thirds of the total encircled force, the mission to penetrate the enemy's encircling position, widen the gap, and hold the shoulders of the gap until all other encircled forces can move through. The rupture force must have sufficient strength to penetrate the enemy line. This force must use surprise, mobility, and firepower to achieve a favorable combat power ratio over the enemy at the point of attack. (Chapter 3 discusses the penetration as a form of maneuver.)

D-45. Initially, the rupture force is the decisive operation. The attack occurs at a location where the commander anticipates a successful rupture of the enemy's inner ring, which facilitates subsequent operations by enabling the commander to attack enemy units from their flanks and rear. The rupture force commander most likely has additional assets attached to his unit, such as air defense artillery assets or additional engineer soldiers. The commander should integrate these assets to achieve the rupture.

D-46. The follow-and-assume force follows the rupture attack and is committed, as necessary, to maintain the momentum of the attack and secure objectives past the rupture. After the rupture force secures a gap in the enemy encirclement, the follow-and-assume force normally conducts the decisive operation until completing linkup operations with another friendly force. When a unit receives a follow and assume mission in a breakout, its commander must coordinate closely with the rupture force commander regarding the location of the gap, the enemy situation at the rupture point, and the enemy situation, if known, along the direction of attack past the rupture point. The commander should not assign this force supporting shaping tasks, such as clear routes and fix bypassed enemy forces, if those tasks would dissipate its available combat power. If executing these support tasks is vital to the success of the breakout and resources permit, the commander should designate a separate follow and support force to perform these tasks.

D-47. The main body consists of the main command post, the bulk of the CSS, the unit's casualties, and some CS assets. It contains combat forces not required for other missions and has sufficient combat power to protect itself. The commander should place one individual in charge of the various elements of the main body to ensure orderly movement. Typically, the main body establishes a flank security force that deploys once the main body passes through the point of penetration and performs flank screen or a guard mission.

D-48. The rear guard consists of soldiers and equipment left on the perimeter to provide protection for the rupture attack and any shaping operations, such as diversionary forces. Forces left in contact must conduct a vigorous delaying operation on the perimeter so that no portion of the rear guard gets cut off. Under a single commander, the rear guard protects the main body from attack while it moves from the area. In addition to providing security, the rear guard deceives the enemy about the intentions of the encircled force, simulating its activities until the main body clears the gap.

D-49. The primary purpose of a reserve is to retain flexibility through offensive action. The commander makes every attempt to keep a small portion of the encircled force uncommitted so he can employ it at the decisive moment to ensure the success of the breakout. The situation may preclude establishing a separate reserve force because of the need to resource either the rupture force, the follow-and-assume force, or the rear guard. In this event, the commander assigns and prioritizes various be-prepared missions to the follow-and-assume force.

D-50. A successful diversion is important to the success of any breakout operation. If the diversion fails to deceive the enemy regarding the intentions of the encircled force, he could direct his full combat power at the rupture point. On the other hand, the diversionary force may rupture the enemy's lines. If a rupture occurs, the diversion force commander must know the intent of the commander of the encircled force. The encircled force commander may choose to exploit the success of forces conducting a diversion, or he may have to disengage them for use elsewhere in the breakout attempt.

CONTROL MEASURES

D-51. As a minimum, a commander uses boundaries; a line of departure (LD) or line of contact; time of the attack; phase lines; axis of advance or direction of attack; objectives; and a limit of advance (LOA) to control and synchronize the breakout. (Chapter 2 describes using boundaries and phase lines. Chapter 3 discusses using axis of advance, direction of attack, objectives, LD or line of contact, LOA, and time of attack.) The commander imposes only those control measures necessary to synchronize his operations.

PLANNING A BREAKOUT

D-52. The commander should initiate a breakout attack as quickly as possible after the enemy encircles his force. While detailed combat information about the enemy's disposition is probably not available, the enemy is normally disorganized at that point in time and is least likely to respond in a coordinated manner. The enemy has not yet brought in sufficient combat power to encircle the friendly force in strength, and weak points exist in his perimeter.

However, sometimes the commander will not attempt a breakout until all other options fail.

D-53. Early in an encirclement, there are gaps between or weaknesses in the enemy's encircling forces. The commander uses his available ISR assets to provide information that increases the accuracy of his situational understanding and determines enemy weak points. The commander plans for the breakout attack to capitalize on identified weak points. Although the resulting attack may be along a less-direct route or over less-favorable terrain, it is the best course of action (COA) because it avoids enemy strength and increases the chance for surprise.

D-54. An encircled force may be operating under adverse conditions and may not have all of its ISR systems operating. This forces the commander to operate with low levels of intelligence regarding enemy strengths, weaknesses, and intentions. Within this environment, he should conduct aggressive reconnaissance to gather information on the enemy. The commander should also obtain information from long-range surveillance units, stay-behind units, and special operations forces in the area. If the enemy is in close contact, the commander may be forced to conduct a reconnaissance in force to ascertain information on enemy strengths. In either case, he must select a COA quickly and develop a plan accordingly.

D-55. A shaping operation, such as a diversionary attack, can assist a breakout by diverting enemy attention and resources away from the rupture effort. The force conducting shaping operations may be located either inside or outside the encirclement area. The enemy must regard the efforts of this force as credible and a threat to the continuity of his maneuver plan. The commander should direct the force's efforts to a point where the enemy might expect a breakout or relief effort. The diversionary force is as mobile as available vehicles, fuel stocks, and trafficability allow so it can reposition to take part in the breakout or maneuver elsewhere to support the breakout. Mobile, self-propelled weapon systems suit the needs of forces conducting shaping operations. Additionally, the probability of a successful breakout increases measurably if another friendly force attacks toward the encircled force as it attempts to breakout.

D-56. The commander conducts offensive information operations to assist the breakout attempt. Deception operations mislead the enemy about the intentions of the encircled force, especially the location of the breakout attempt. If it is not possible to breakout immediately, the commander attempts to deceive the enemy regarding the time and place of the breakout by concealing his preparations and changing positions. He can also give the appearance that the force will make a resolute stand and await relief.

D-57. The commander can use dummy radio traffic for the enemy to monitor or landlines that he might tap to convey false information. The breakout should not be along the obvious route toward friendly lines unless there is no other alternative. In this respect, the preparations for a breakout mirror the preparations for any other type or form of offensive operations. As in other offensive actions, secrecy, deception, and surprise allow for success. The other planning considerations for the breakout are the same as for any other attack.

EXECUTING A BREAKOUT

D-58. The commander exploits darkness and limited visibility during a breakout if his encircled forces have superior night-operations capabilities. The cover of darkness, fog, smoke, or severe weather conditions favor the breakout because the encircling enemy weapons are normally less effective then. The enemy has difficulty following the movements of the breakout force during conditions of limited visibility. However, if the encircled force commander waits for darkness or limited visibility, the enemy may have time to consolidate his containment positions. If friendly forces enjoy air superiority, they may initiate a breakout attack during daylight to fully exploit the capabilities of close air support.

D-59. The unit takes all possible precautions to deceive the enemy about the location of the decisive operation. The rupture force minimizes occupation of attack positions before starting the breakout. A commander may require one or more shaping operations to assist the rupture force in penetrating enemy positions and expanding the shoulders. He may use feints and demonstrations to deceive the enemy concerning the location and time of the decisive operation. However, diversionary attacks need not always occur first.

D-60. The commander organizes and controls his rupture force as he would an attack or movement to contact. (See Figure D-8.) The rupture force generates overwhelming combat power at the point of penetration and attempts to rapidly overwhelm enemy positions and expand the penetration. A commander hard pressed to generate sufficient combat power for both the rupture force and the perimeter defense can thin his defensive perimeter in certain areas by using a detachment left in contact in conjunction with a withdrawal prior to executing the attack. He may also shorten the perimeter's length, which reduces the size of the area occupied by the encircled force.

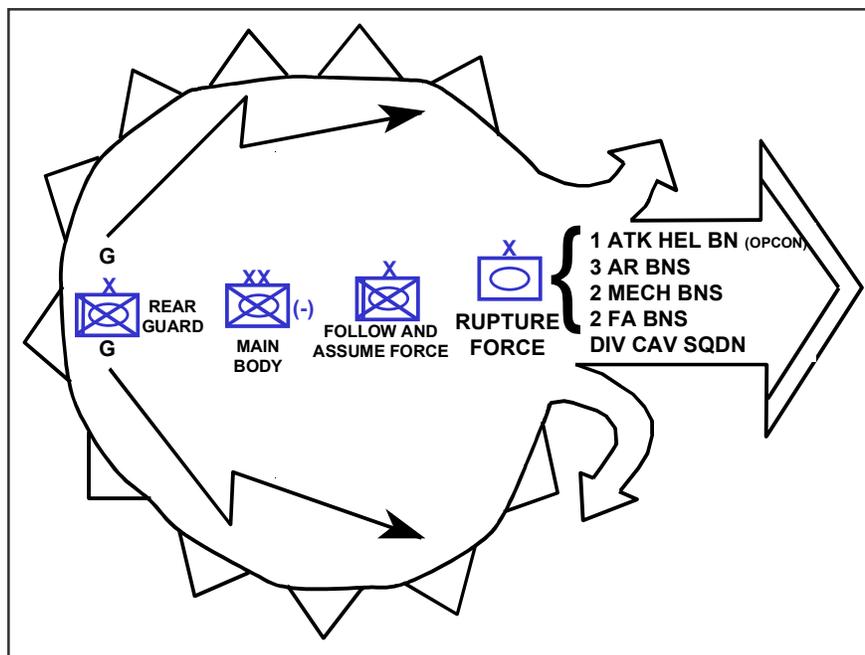


Figure D-8. Breakout by an Encircled Mechanized Division

D-61. The rupture force applies the breaching fundamentals of suppress, obscure, secure, reduce, and assault to ensure its success at the point of penetration. These fundamentals always apply, but their application will vary based on the prevailing factors of METT-TC. FM 3-34.2 defines these breaching fundamentals and provides guidance regarding the organization of forces, control measures, and planning, preparation, execution, and assessment considerations of combined arms breaching operations.

D-62. If enemy forces at the point of penetration have roughly the same combat power as the rupture force, the commander orders the rupture force to hold the shoulders of the penetration while the follow-and-assume force moves forward. It then becomes the decisive operation. (See Figure D-9.) If the enemy is not in strength, the commander may have the rupture force continue its attack. If there are no identified enemy formations beyond the penetration, the rupture force may transition to a movement to contact. After the encircled friendly force breaks out, it moves toward other friendly forces and links up with them. The next section addresses the control measures and considerations associated with conducting a linkup.

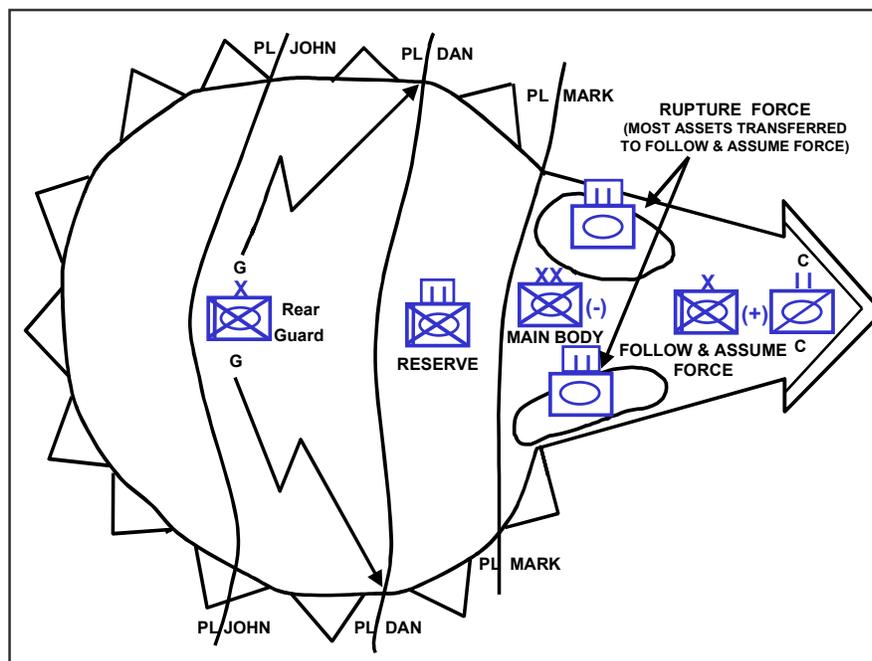


Figure D-9. Continued Breakout by an Encircled Mechanized Division

D-63. Initially, the follow-and-assume force passes through the gap created by the rupture force. It is essential that this force continue to move rapidly from the encircled area toward its final objective. If the follow-and-assume force becomes the encircled commander's decisive operation, it cannot allow itself to become bogged down. Preparatory fires by artillery, Army aviation, close air support, and air interdiction may help the follow-and-assume force in maintaining momentum out of the encircled area.

D-64. Once the breakout attack starts, the rear guard and any diversion forces disengage or delay toward the area of the rupture. Perimeter forces integrate smoothly into the rear of the breakout column. The commander shifts his priority of fires as required by METT-TC once the breakout occurs.

D-65. As other encircled units support or move through the area of penetration, the rear guard commander must spread his forces over an extended area. This requires flexibility and mobility by the rear guard. The perimeter must withstand enemy pressure. If the enemy succeeds in destroying or encircling the original rear guard in the breakout process, the commander must reconstitute a new rear guard.

D-66. The main body follows the follow-and-assume force. It moves rapidly as a single unit on multiple routes in an approach march or road march formation immediately behind the follow-and-assume force, protected on its flanks by security elements. It contains sufficient combat power to protect itself and reinforce the flank or rear security forces if they come under attack.

D-67. Normally, the rear guard initially conducts a withdrawal to break contact with the enemy forces around the perimeter. It contracts the perimeter as it delays back behind the main body. If the enemy closely pursues the breakout force, the efforts of the rear guard may become the decisive operation for the encircled force. The commander should position the reserve where it can also support the rear guard.

D-68. Initially, the priority for fire support is with the rupture force and should focus on suppressing and obscuring the point of penetration. Fire support assets move as part of the main body and rear guard so security forces have adequate fire support. Target identification difficulties resulting from close proximity and intermixing of forces, as well as the rapidly changing ground situation during the execution of a breakout, make the provision of close air support difficult.

D-69. Engineers with the rupture force focus on mobility operations. Engineers with the follow-and-assume force or the reserve improve routes as necessary. Engineers supporting flank security elements focus on conducting countermobility operations. The rear guard must also have enough engineers to conduct countermobility operations.

D-70. The commander prioritizes his air defense assets to protect the rupture force, the rear guard, and the main body. The rear guard is second in priority of protection to help prevent it from being overrun by an enemy pursuit targeted at the main body. The commander must dedicate air defense systems to cover critical points through which the encircled force will pass.

D-71. The commander can relieve his logistics shortfalls by using aerial resupply, ordering external forces to establish support areas, and by using captured supplies. All units and vehicles carry the maximum supplies possible, with emphasis on carrying POL and ammunition. The encircled force only takes vehicles it can support. It may be possible for the higher headquarters of the encircled force to establish an intermediate support base as the breakout attack moves toward a linkup.

EXFILTRATION

D-72. If the success of a breakout attack appears questionable, or if it fails and a relief operation is not planned, one way to preserve a portion of the force might be through organized exfiltration. (Appendix B describes exfiltration as a tactical mission task.)

ATTACKING DEEPER INTO ENEMY TERRITORY

D-73. A COA that the enemy is not likely to expect from an encircled force is to attack deeper to seize key terrain. It involves great risk but may offer the only feasible COA under some circumstances. Attacking may allow the encircled unit to move to a location where it can be extracted by other ground, naval, or air forces. It is only feasible if a unit can sustain itself while isolated, although that sustainment can come from aerial resupply and enemy supply stocks.

D-74. When the enemy is attacking, an encircled friendly force that attacks deeper into the enemy rear may disrupt his offense and provide an opportunity for linkup from another direction. If the enemy is defending and the attacking force finds itself isolated through its own offensive action, it may continue the attack toward its assigned objective or a new objective located on more favorable defensive terrain.

LINKUP

D-75. A *linkup* is a meeting of friendly ground forces, which occurs in a variety of circumstances. It happens when an advancing force reaches an objective area previously seized by an airborne or air assault; when an encircled element breaks out to rejoin friendly forces or a force comes to the relief of an encircled force; and when converging maneuver forces meet. Both forces may be moving toward each other, or one may be stationary. Whenever possible, joining forces exchange as much information as possible before starting an operation.

D-76. The headquarters ordering the linkup establishes—

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

CONTROL MEASURES

D-77. The commander establishes minimum control measures for units conducting a linkup. He assigns each unit an AO defined by lateral boundaries and a RFL that also acts as a LOA. The commander establishes a no-fire area around one or both forces and establishes a coordinated fire line beyond the

area where the forces linkup. The linkup forces use the linkup points established by the commander to initiate physical contact. The commander designates alternate linkup points since enemy action may interfere with the primary linkup points. He adjusts such control measures during the operation to provide for freedom of action as well as positive control.

EXECUTION

D-78. There are two methods of conducting a linkup. The preferred method is when the moving force has an assigned LOA near the other force and conducts the linkup at predetermined contact points. Units then coordinate further operations. The commander uses the other method during highly fluid mobile operations when the enemy force escapes from a potential encirclement, or when one of the linkup forces is at risk and requires immediate reinforcement. In this method, the moving force continues to move and conduct long-range recognition via radio or other measures, stopping only when it makes physical contact with the other force.

D-79. When one of the units involved is stationary, the commander usually locates the linkup points near the RFL/LOA. (See Figure D-10.) The linkup points are also located near the stationary force's security elements. Stationary forces assist in the linkup by opening lanes in minefields, breaching or removing selected obstacles, furnishing guides, and designating assembly areas. When a moving force is coming to relieve an encircled force, it brings additional logistics assets to restore the encircled unit's combat effectiveness to the desired level.

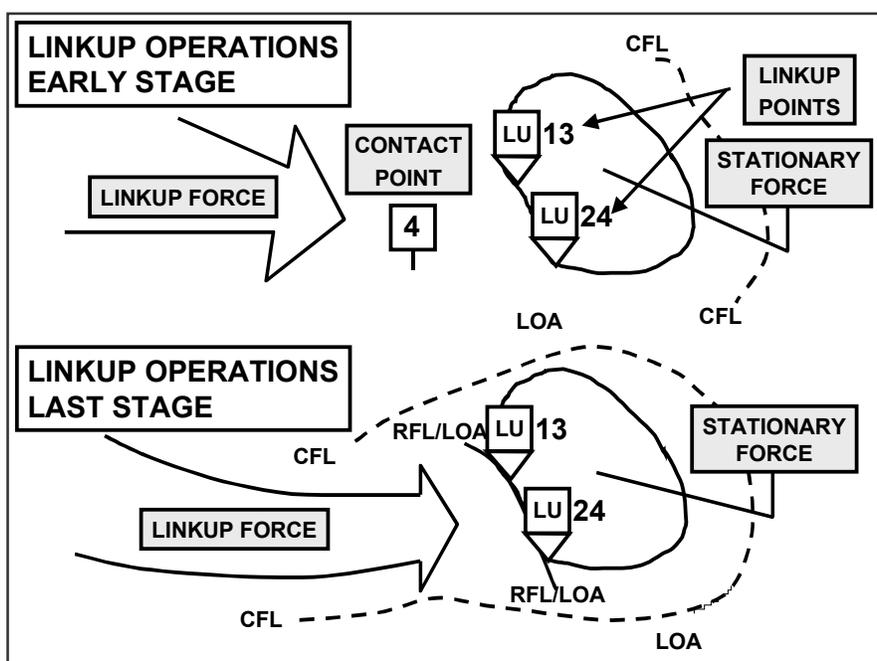


Figure D-10. Linkup of a Moving Force and a Stationary Force

D-80. Linkup between moving units is one of the most difficult operations. The commander establishes a LOA to prevent fratricide. He establishes

primary and alternate linkup points for the moving forces near the LOA. Fire support considerations are similar to when a stationary and moving force linkup. Leading elements of each force should exchange liaison teams and be on a common radio net. (See Figure D-11.)

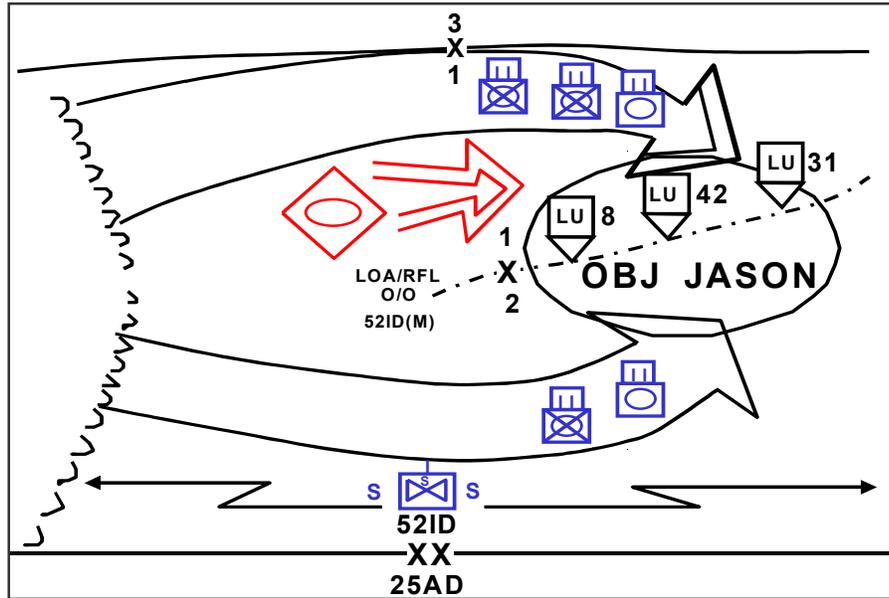


Figure D-11. Linkup of Two Moving Forces

D-81. The commander must carefully coordinate linkup operations with forces of other nations. This is especially true if the two armies are not both members of an alliance with established internationally standardized procedures, or if the units involved have not previously established the necessary procedures.