

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.

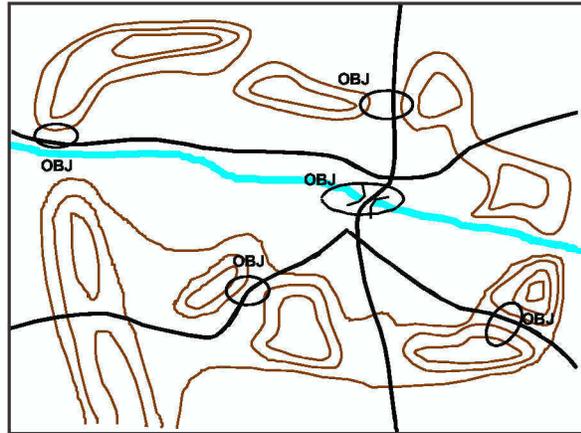


Figure C-1. Assault Objectives

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

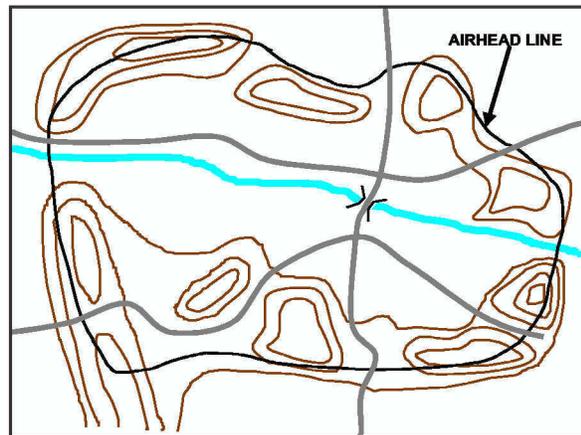


Figure C-2. Airhead Line

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 airhead 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.)

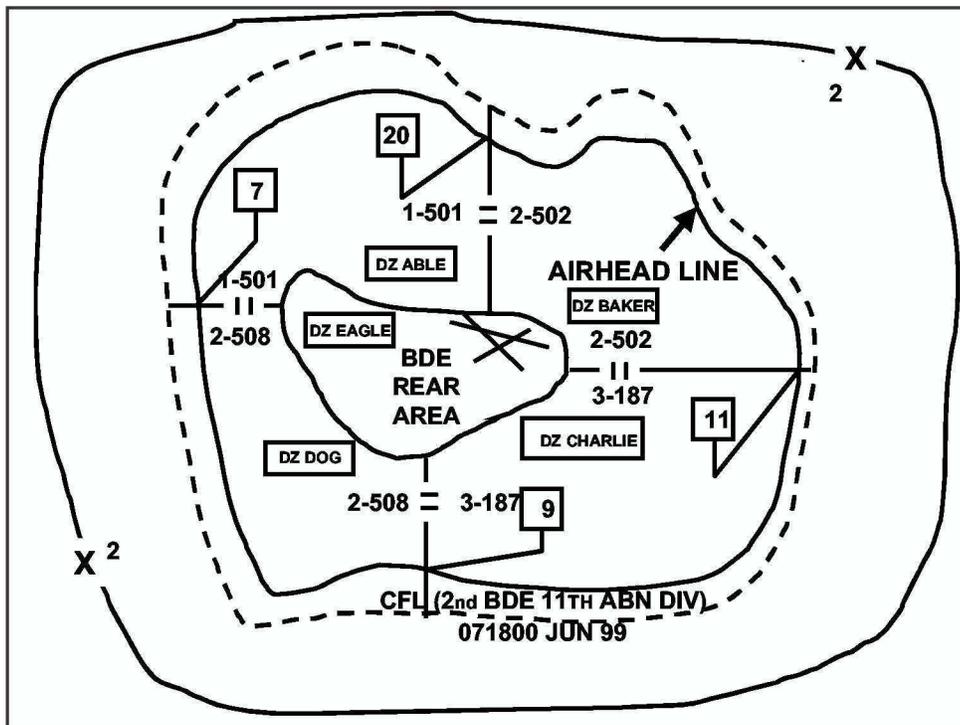


Figure C-3. Boundaries and Fire Support Coordinating Measures for an Airhead

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.

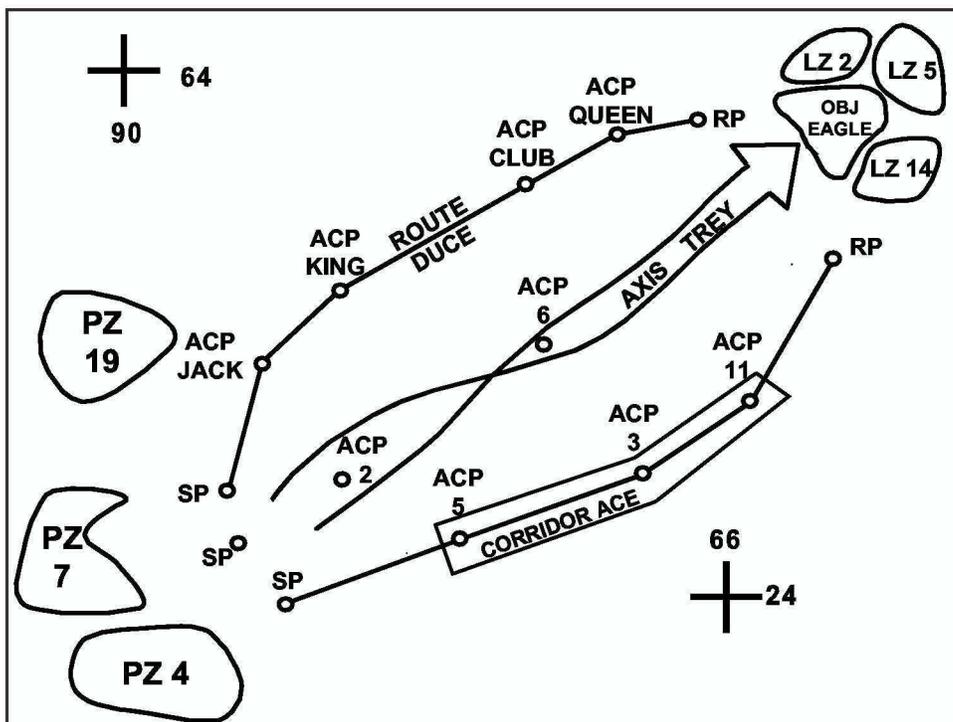


Figure C-4. Flight Routes Depicted on an Overlay

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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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.

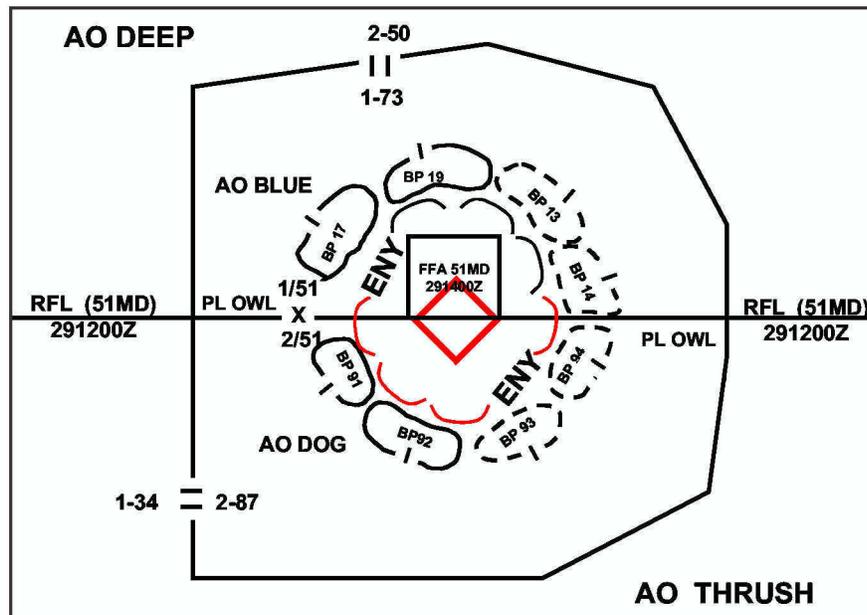


Figure D-2. Encirclement Control Measures

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.

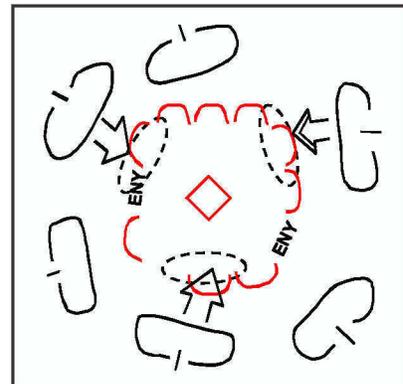


Figure D-3. Squeeze Technique

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.

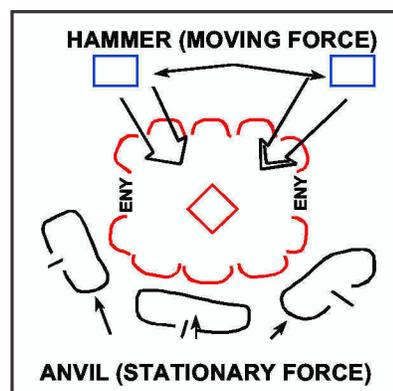


Figure D-4. Hammer and Anvil Technique

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.

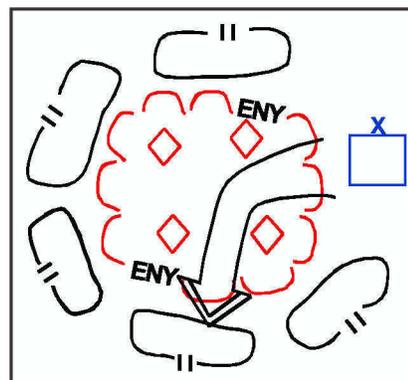


Figure D-5. Wedge Technique

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.

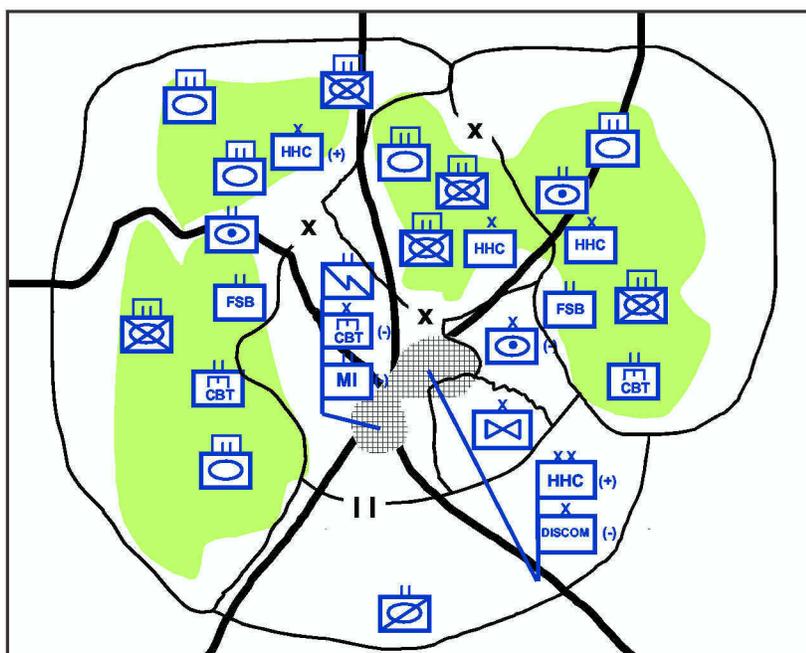


Figure D-6. Encircled Armor Division's Perimeter Defense

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, and reserve 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

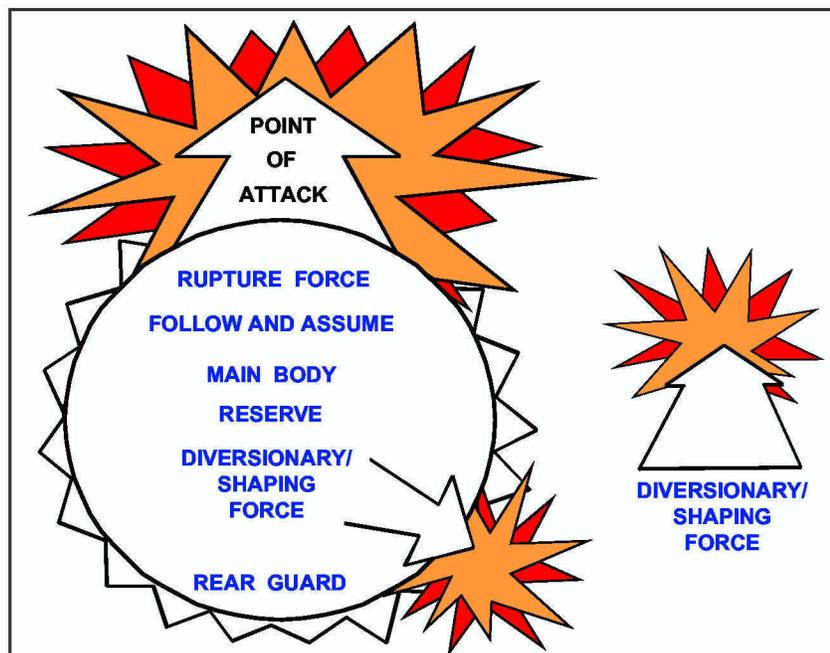


Figure D-7. Organization of Forces for a Breakout Operation

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.

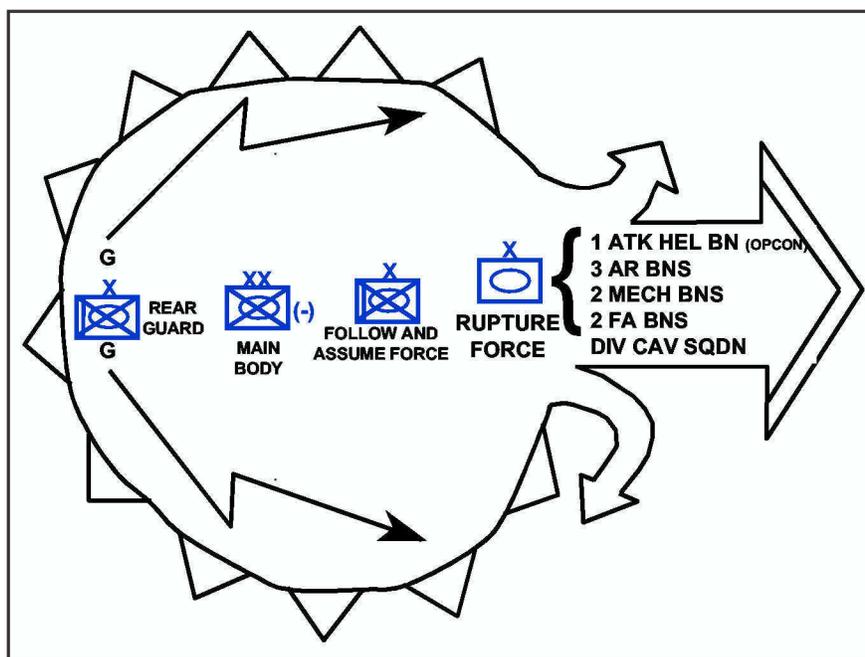


Figure D-8. Breakout by an Encircled Mechanized Division

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.

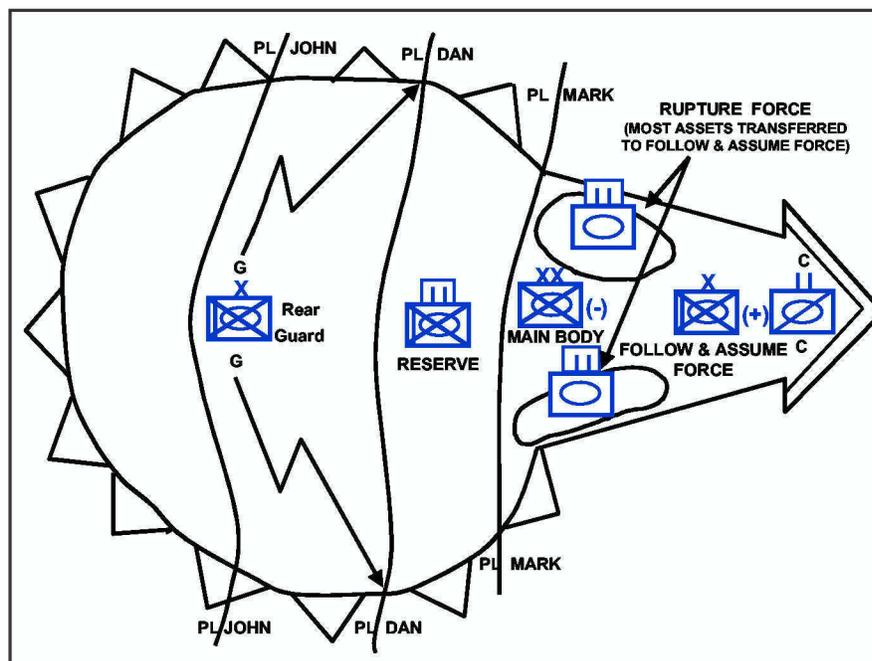


Figure D-9. Continued Breakout by an Encircled Mechanized Division

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.

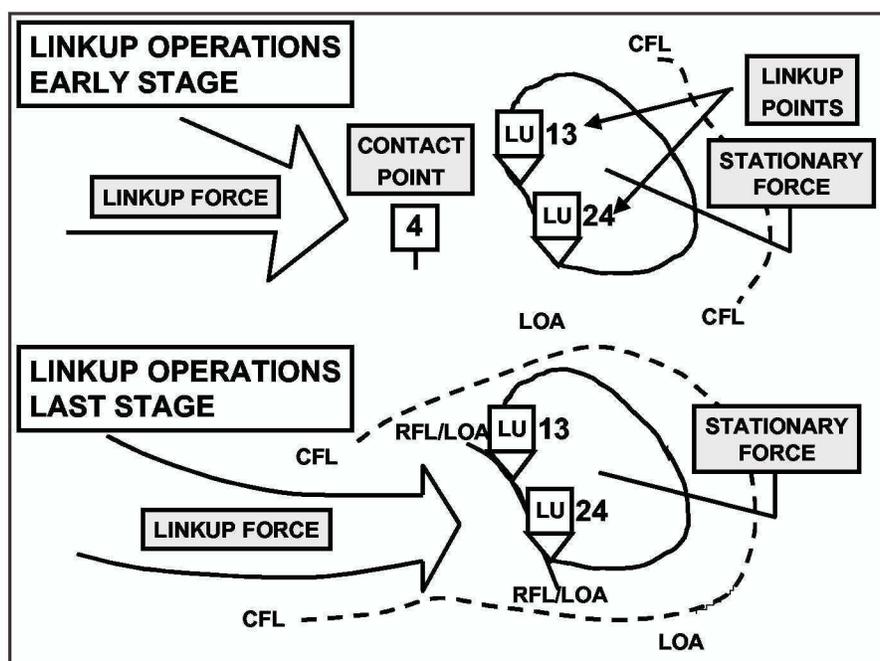


Figure D-10. Linkup of a Moving Force and a Stationary Force

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.)

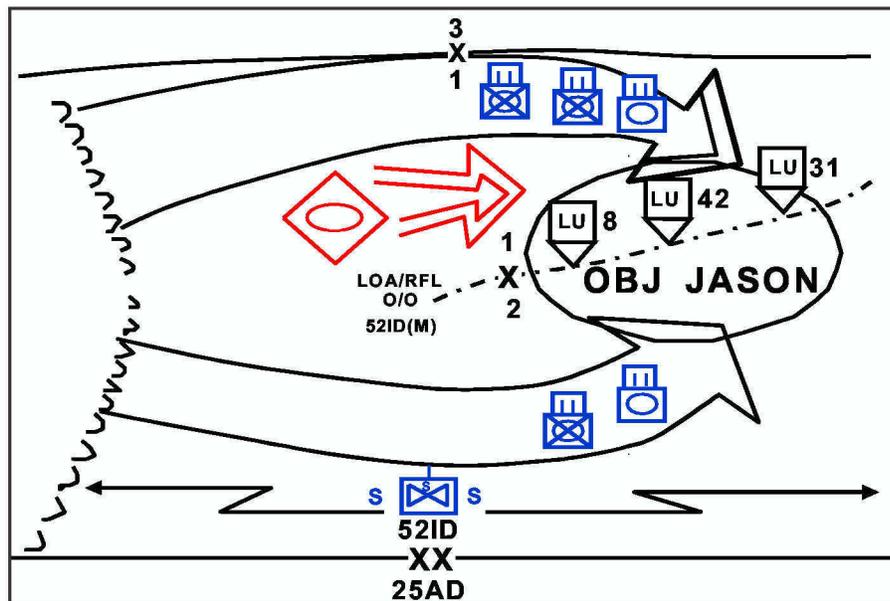


Figure D-11. Linkup of Two Moving Forces

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.