

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 401.2). 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.

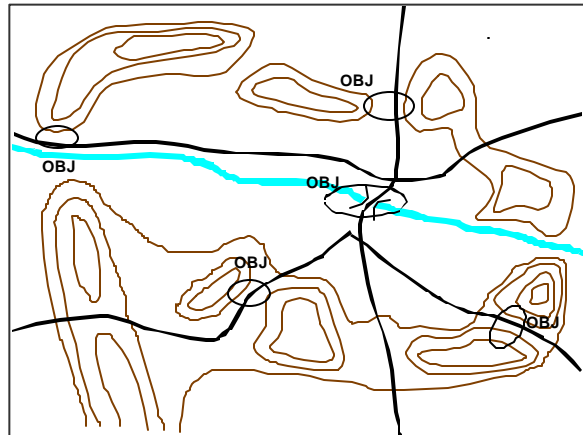


Figure C-1. Assault Objectives

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 up combat power. Once the assault force secures the airhead, it clears all enemy forces within it, not just organized enemy units. The

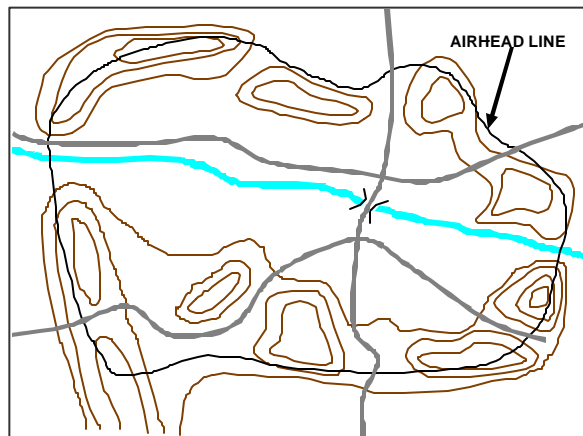


Figure C-2. Airhead Line

The following factors determine the location, extent, and form of the airhead line:

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

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

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

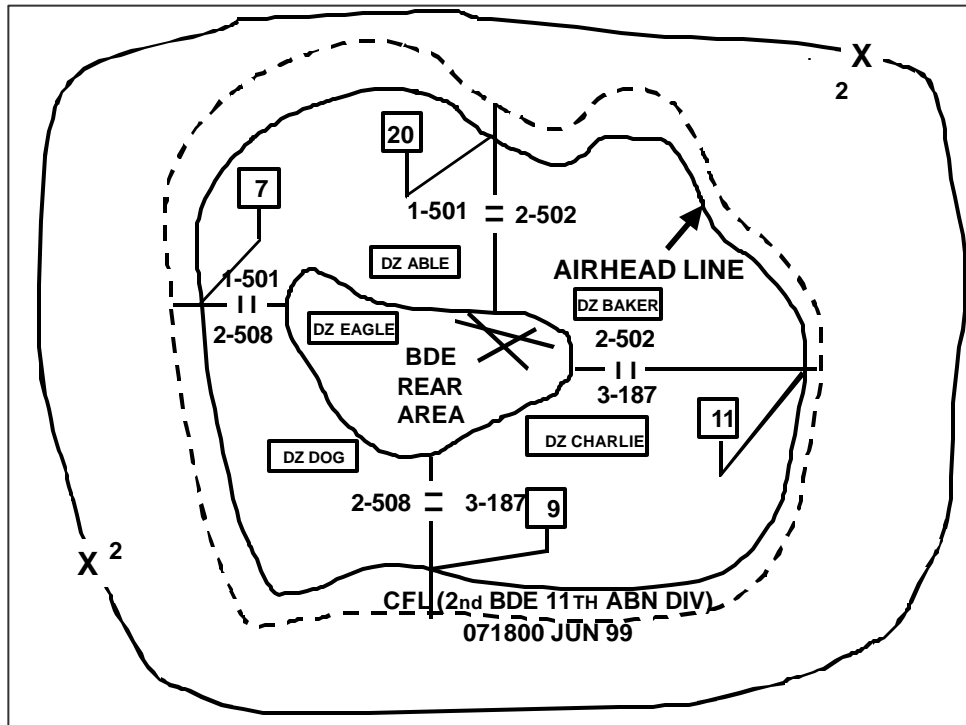


Figure C-3. Boundaries and Fire Support Coordinating Measures for an Airhead

PLANNING CONSIDERATIONS

C-25. The airborne force commander begins planning when he receives an initiating directive or a warning order. JP 318 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.

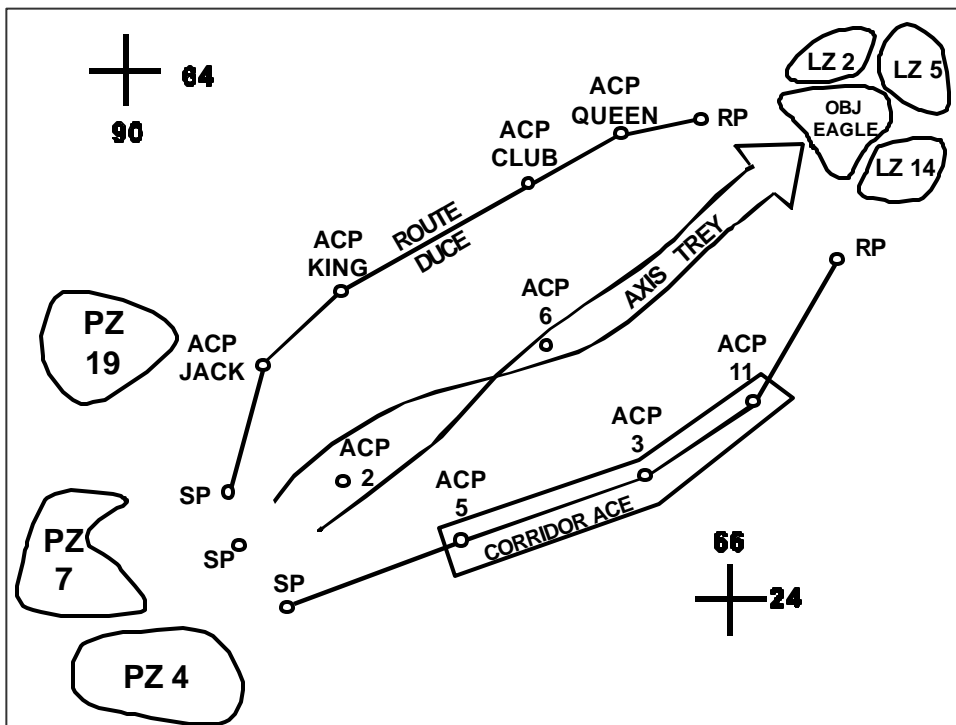


Figure C-4. Flight Routes Depicted on an Overlay

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.