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AIRBORNE

VOLUME 1

AIRBORNE OPERATIONS

(BILINGUAL)

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FOREWORD

1. Airborne Operations, is issued on authority of the Chief of the Defence Staff(CDS).
2. It is effective on receipt and supersedes B-GL-302-010/FT-001, Parachute Operations, 22 Apr 82.
3. Suggestions for amendments should be forwarded through normal command channels to the Secretary of the Army Doctrine and Tactics Board, c/o Mobile Command Headquarters(CHQ).

AIM

4. The aim is to state the doctrine for Canadian airborne forces.

SCOPE

5. This manual outlines the capabilities and limitations of airborne forces and provides guidance on the planning, conduct, command and control and combat service support requirements.

PRIMARY REFERENCES

6. Primary references for the preparation of this publication were:
 - a. ATP 35(A), Land Forces Tactical Doctrine (Revised)
 - b. ATP 41, Air Mobile Operations;
 - c. B-GL-300-000/FP-000, The Army;
 - d. B-GL-301-001/FP-001, Land Formations in Battle;
 - e. B-GL-302-010/FT-001, Parachute Operations;
 - f. B-GL-309-001/FT-001, The Infantry Battalion in Battle; and
 - g. B-GL-313-001/FP-001, Medical Services in Battle.

TERMINOLOGY

7. The terminology used in this manual is consistent with that of B-GL-303-002/JX-Z03 Supplement 3, Army Vocabulary, and AAP-6(R) NATO Glossary of Terms and Definitions.

STANDARDIZATION AGREEMENTS

8. The following international standardization agreements have been wholly or partially incorporated into this volume:

- a. STANAG 3570 Ed 3 - Drop Zone and Extraction Zone - Criteria and Marking
- b. ASCC Air Std 44/13G - Drop/Extractions Zones: Visual Markings

PREFACE

1. The psychological and material effect of airborne troops became evident early in World War II with the German successes in the Netherlands, Norway and Crete. In 1942 the 1st Canadian Parachute Battalion was established initially for the home defence role. Later this unit, as part of the 6th British Airborne Division, participated in two major airborne assaults, notably the D-Day and Rhine Crossing operations. The 2nd Canadian Parachute Battalion was also formed in 1942 as part of a joint Canadian-American Task Force for special operations. This battalion, as part of the First Special Service Force, was later redesignated the 1st Canadian Special Service Battalion and fought with distinction in Italy and Southern France.
2. The employment of airborne forces in World War II introduced revolutionary changes in concepts of mobility, manoeuvre, and surprise in the conduct of war. With today's wide spectrum of conflict, formidable weapons, and greatly improved tactical and strategic mobility, there is a requirement for the development of even more radical concepts for the employment of these forces.
3. The characteristics of airborne forces are boldness, speed, surprise, and the capability for far-ranging action. It is, however, the aggressiveness, initiative, and sense of teamwork of the individual paratrooper that will guarantee success.

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INTRODUCTION
SECTION 1
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AIM

1. The aim is to give guidance for the employment and training of Canadian airborne forces.

SCOPE

2. An airborne operation is a joint operation involving the air movement of forces into an objective area. Troops and equipment may be delivered by parachute, by helicopter, or air-landed. As the principles and techniques are similar, this manual discusses the most complex of these, parachute delivery.
3. The capability and limitations of an airborne force, together with guidance for the planning and conduct of operations, are discussed. In particular the following subjects are considered:
 - a. an introduction to airborne operations,
 - b. command and control,
 - c. conductor operations,
 - d. battle procedure, and
 - e. administrative and logistics.
4. No attempt has been made to discuss the conduct of the land battle in sustained ground operations subsequent to the airborne assault. Such detail can be found in other manuals.

SECTION 2

EMPLOYMENT

CHARACTERISTICS

1. Five characteristics differentiate airborne forces from more conventional forces:
 - a. **Air Mobility.** Airborne forces are specifically adapted to move by air. Their radius of action is in fact that of the transport aircraft; then can be moved within theatres, across theatres, and over nuclear, biological and chemical (NBC) and ground obstacles at relatively fast speeds.
 - b. **Quick Reaction.** Airborne forces are trained to be immediately available to mount a wide variety of operations with minimum delay. They are trained to change their scale of equipment quickly to suite the mission and environment.
 - c. **Flexibility.** Far from being specialized troops, Airborne forces, like all light infantry, have more flexibility in tactical employment than most other troops. They can be used effectively in specific areas where conventional forces are restricted: urban areas, the jungle, the mountains and in the North. They can be delivered by parachute, air-landed, transported by helicopter or vehicle, or on foot.
 - d. **Lightness.** The light scale of equipment makes the acquisition of accurate intelligence, selection of P hour, and appropriate analysis of the environment prime factors in the accomplishment of the mission. On the other hand, it contributes to flexibility and mobility and helps create a special spirit because the emphasis is on the fighting member rather than the fighting equipment.
 - e. **Shock Effect.** Employed properly and with audacity, airborne forces can create a shock effect out of all proportion to their size, fire-power and number.

LIMITATIONS

2. The following limitations must be considered by airborne forces when parachute delivery is intended:
 - a. availability of transport aircraft;
 - b. a need for overall or, as a minimum, local air superiority;
 - c. inability of aircraft to reach their destination for a variety of reasons;
 - d. a need for favourable weather, especially winds, since ground wind speeds over 13 knots may cause high landing-casualties;

- e. aircraft not fitted with station-keeping equipment will have difficulties in maintaining formation in poor visibility;
- f. a need for accurate and extensive intelligence on the projected area of operation;
- g. during descent and landing, airborne forces risk heavy losses from enemy air defences and ground fire; and
- h. a need for special training and special equipment.

REDUCTION OF LIMITATIONS

- 3. Limitations can be reduced by:
 - a. the destruction, neutralization or suppression of enemy air defences and the enemy's electronic warfare (EW) capability;
 - b. heavy preparatory fire support, including close air support, immediately before landing and continued tactical air support during the landing and ground tactical stages;
 - c. the rapid build-up of strength in the objective area or early link-up, relief, or extrication; and
 - d. effective, coordinated, single-ship missions to the same general objective area can reduce the effect of some weather restrictions or poor visibility as well as minimizing the capabilities of enemy defences.

SCALE OF CONFLICT

4. Airborne forces are particularly suited to lower intensity conflicts, due to the vulnerability of transport aircraft and the limitations of a light combat organization. Nevertheless, airborne forces, with their inherent flexibility, might be engaged in a variety of operations from domestic assistance, to international peacekeeping or peace restoration, to national security, through limited war to general war. The enemy may vary from poorly trained insurgents to highly sophisticated armies.

TYPES OF OPERATIONS

- 5. There are three types of parachute operations:
 - a. **Seize and Hold Operations.** This is a typical mission for airborne forces involving an airborne assault, with a possible air-landed reinforcement, to seize and hold objectives until either a linkup with other forces, or until a planned withdrawal.

- b. **Area Interdiction Operation.** This type of operation aims at denying or hindering operations in a specific area. Urban or built-up areas, terrain which is heavily wooded, hilly, dominated by a river or other obstacles which hinder the enemy's off-road mobility, are best suited for such operations.
 - c. **Airborne Raid.** The airborne raid is a tactical or strategic operation, characterized by boldness of concept and execution, and by its short duration. Airborne raids may be conducted to destroy enemy installations or positions, to capture or kill enemy personnel, to rescue friendly personnel, or to harass or disrupt enemy operations. Because of control and logistic considerations, such operations are usually limited in size.
6. Each type of operation has certain common factors:
- a. As the completely successful insertion of airborne forces is uncertain, and as they have limited flexibility in ground manoeuvre, success is dependent upon the forces' initiative and the thoroughness of briefings that all members have received.
 - b. Terrain is of great importance. It should help the harassing manoeuvre, facilitate the creation of obstacles, and provide hide areas.
 - c. The tactical mobility of airborne troops may be improved by transport, included as part of a heavy equipment drop, and by the subsequent use of helicopters.
 - d. The duration of the mission should be limited. The extrication of forces may be carried out by air, sea or ground -
 - (1) by linking with friendly ground forces, or
 - (2) by exfiltrating through the enemy's positions.
 - e. As the heavier direct-fire weapons cannot be carried, organic fire support will be limited. This may demand a special allocation of close air support and a requirement for a larger number of man-portable, anti-armour weapons.
 - f. Air superiority in the objective area and in the area of operations is required to launch an airborne operation. However, that situation could change rapidly following the airborne assault. To ensure freedom of manoeuvre, hand-held air defence (AD) weapons must accompany the initial assault, and further (AD) systems should enter the objective area as early as possible.
 - g. When an airborne force cannot be deployed in a single lift, the composition of the lead element must be well-balanced and be capable of operating independently as subsequent lifts may be delayed due to weather or enemy actions.

- h. Alternate plans are very important as the primary plan may be altered due to weather or enemy action. Hence, alternate plans must be prepared in detail, and rehearsed.

PROBABLE TASKS

7. An airborne operation may be initiated as an independent operation or, more probably, in conjunction with ground force operations in order to prepare, expedite, supplement, or extend the ground force action. Airborne forces may be used to:

- a. collect information in enemy-controlled territory;
- b. conduct raids on headquarters(HQ), lines of communication, and administrative and logistic installations;
- c. seize key terrain, vital ground and defiles;
- d. attack and neutralize enemy fire support bases, including nuclear delivery means and airfields;
- e. provide (from airborne reserves) reinforcements to hard-pressed - or cut off ground forces;
- f. conduct an attack on the rear of enemy positions, or cut off enemy reserves in combination with the action of ground forces engaged in an offensive manoeuvre;
- g. strengthen a threatened flank, repulse an enemy assault in friendly rear areas, or mount a raid;
- h. create a state of insecurity in the enemy's rear areas, possibly in liaison with friendly elements of the population;
- j. capture and retain major strategic targets inside enemy-controlled territory until a link-up with the main forces can be made; and
- k. carry out any light infantry task in the main battle area.

OTHER TASKS

8. In support of other operations, airborne forces may conduct other tasks such as:
- a. deep penetration patrols,
 - b. amphibious operations,

- c. airmobile operations, or
- d. internal security tasks.

INFLUENCE OF NUCLEAR WEAPONS

9. The possible use of nuclear weapons on the battlefield has not reduced the importance of airborne operations. Although airborne operations involving large formations should not be precluded, such operations will only be conducted under favourable circumstances. On the other hand, the conduct of smaller scale airborne operations in conjunction with the ground tactical battle is more probable in the nuclear environment.

10. In a nuclear environment, the further aim of parachute operations could be:

- a. to emplace atomic demolition munitions (AIMs);
- b. to counter exploitation by enemy nuclear fire either by rapidly filling any gaps or by taking up blocking positions;
- c. by harassing and forcing the enemy to concentrate, create conditions favourable for the employment of friendly forces' nuclear weapons;and
- d. to exploit friendly nuclear fire by seizing objectives in depth or by preventing/blocking the deployment of enemy reinforcements.

SECTION 3

SPECIAL OPERATIONAL SKILLS

GENERAL

1. To execute the varied roles and multi-task concept of employment, airborne forces require, in addition to a high degree of proficiency in all basic military skills, expertise in certain special operational skills.

SPECIAL SKILLS

2. **Parachuting.** Personnel must be capable of parachuting, by day or by night, into a combat zone with their personal weapons, equipment, ammunition, and rations. A portion of the force must be trained in parachuting methods required for pathfinding, high altitude low opening (HALO), and special operational techniques utilizing high performance canopies for covert insertion.

3. **Aerial Re-supply.** Unit and sub-unit rigging teams must be trained to rig their own vehicles, weapons, and equipment platforms for serial delivery using parachutes, LAPES, helicopters, or any combination of these means.

4. **Warfare Skills in Varied Environments.** All personnel must be trained in the battle drills, survival techniques, and navigational skills required in a northern, mountain, desert, urban or jungle environment. Selected personnel should be trained in climbing techniques, advanced skiing, river navigation, and small boat handling.

5. **Long Range Patrolling.** A number of personnel should be trained to carry out long range patrols in order to gather intelligence and to disrupt enemy activity. These patrols may be required to utilize high altitude stand-off parachuting techniques to penetrate enemy lines or clandestinely approach targets that would normally be alerted by the close proximity of aircraft.

6. **Intelligence Skills.** Selected personnel should maintain fluency in certain foreign languages. These and other personnel should be trained in foreign army map-marking techniques, and in the use of foreign army vehicles, radios, and weapons.

SECTION 4

FORCES

GENERAL

1. Airborne forces are organized, equipped and trained specifically for delivery by airdropping. The organization and composition of an airborne force depends in part upon air transport capacity.

AIR SUPPORT

2. **General.** Air support to airborne forces includes strategic and tactical transport, air reconnaissance and interdiction, and close air support aircraft.

3. **Strategic and Tactical Transport Aircraft.** Strategic aircraft provide transport to the theatre of operations, and tactical aircraft provide the lift to transport the airborne forces from departure airfields to their drop zones(DZs).

4. **Air Reconnaissance and Interdiction.** Tactical air reconnaissance provides information primarily on enemy forces and defences in the objective area, and battlefield air interdiction is used to hinder or delay enemy countermoves.

5. **Close Air Support.** The achievement and maintenance of local air superiority is imperative. Close air support should begin with the air movement stage and should continue through to the completion of the operation.

FIRE SUPPORT

6. **General.** While integral artillery support is part of the airborne forces establishment, it is limited. Aircraft capacity dictates the number of integral fire support weapons which can be paraded or air-landed. This may be compensated for by providing close air support and support from attack helicopters, long range artillery and naval guns.

7. **Air Defence.** Integral AD elements may be deployed to provide protection to the airborne force.

ENGINEERS

8. Usually airborne forces require engineer assistance for mobility and countermobility tasks. A seize and hold operation may include a requirement to construct landing zones(LZs) or austere airfields.

AIRMOBILE FORCES

9. These may be used in combination with, or in support of, airborne forces.

AVIATION ELEMENTS

10. Aviation elements may be used for reconnaissance, mobility, fire support, command, control and combat service support (CSS) tasks.

CHAPTER 2

COMMAND AND CONTROL

SECTION 1

UNITY OF COMMAND FOR AIRBORNE OPERATIONS

INTRODUCTION

1. Airborne operations are joint operations that require the concentrated efforts of land, air and, in some instances, naval forces to accomplish the strategic or tactical mission. Although the land force will ultimately close with and destroy the enemy, the air/naval forces will be required to provide transportation and protection to the objective area, as well as fire and logistic support. Unity of command to direct this joint effort is essential.

SECTION 2

COMMAND

INTRODUCTION

1. Establishment of a joint airborne(TF) is essential for the planning and conduct of airborne operations involving large formations.
2. The command and control of an airborne operation is achieved by establishing a joint airborne TF for planning and conduct. All levels of command must be briefed thoroughly on the joint task force commander's (JTFCs) intention for the operation and must be able to operate with minimal direction once the airdrop is initiated.
3. **Key Appointments.** The key appointments for an operation are the JTFC, airborne force commander, air component commander, and airlift force commander.

JOINT TASK FORCE COMMANDER

4. **Operational Authority.** This is the officer who exercises command of the TF through the commanders of the airborne and airlift forces.
5. **Responsibilities.** The JTFC's responsibilities include:
 - a. directing the task;
 - b. issuing coordinating instructions;
 - c. ensuring the establishment of coordination with AD, airspace control and tactical air support agencies;
 - d. making provision for replenishment of the force;
 - e. specifying the plan for link-up, relief, or extrication, once the task is accomplished;
 - f. specifying the AD plan and control measures for integral AD resources;
 - g. co-ordination at Suppression of Enemy Air Defences (SEAD); and
 - h. co-ordination of link-up with advancing ground forces or those ground forces controlling the re-entry point .

6. Normally, the JTFC retains the authority to launch the operation or to abort en route to the objective area. Usually the JTFC retains the authority to change DZs. Such decisions are based primarily on the recommendations of the airborne force commander. In some cases, particularly if long distances are involved and communications are unreliable, this authority may be delegated to the airborne force commander.

AIRBORNE FORCE COMMANDER

7. **Operational Authority.** This is the land force officer directed to carry out the operation.
8. The airborne force commander's responsibilities include:
 - a. command and control of the airborne force;
 - b. execution of the JTFC's orders; and
 - c. detailed planning and conducting of all stages of the operation, except the air movement stage, which is conducted in consultation with the airlift force commander.

AIR COMPONENT COMMANDER

9. **Operational Authority.** This is the airforce officer who is given command of the participating air resources.
10. The Air Component Commander's responsibilities include:
 - a. co-ordination of air transport for the airborne force;
 - b. establishing air superiority and coordinating escort aircraft along the air transport corridors, over the DZs and the objective area;
 - c. close air support on the DZ's and the objective area;
 - d. co-ordination of air traffic control through friendly airspace; and
 - e. SEAD, in conjunction with ground forces, as directed by the JTFC.

AIRLIFT FORCE COMMANDER

11. **Operational Authority.** The airlift force commander is the airforce officer who is given command of the participating airlift units.
12. **Responsibility.** The airlift force commander is responsible for the air movement stage of the airborne operation.

JOINT TASK FORCE

13. In a large scale strategic or tactical operation involving all three forces, the chain of command in diagrammatic form may appear as shown in Figure 2-2-1.

14. There are specific situations which may dictate the employment of airborne forces for independent operations. Examples of such operations are area interdiction and airborne raids, where withdrawal must be effected by exfiltration through the enemy's lines. The chain of command in this case will be less sophisticated and may appear as follows:

15. As displayed in Figure 2-2-2, a joint plan is prepared by the airborne/airlift force commanders. The JTFC and staff will co-ordinate the details of the joint plan with other land force(s) as required, and request fire support from the air force(s) and naval gun fire support if available. In addition, they will co-ordinate logistic support.

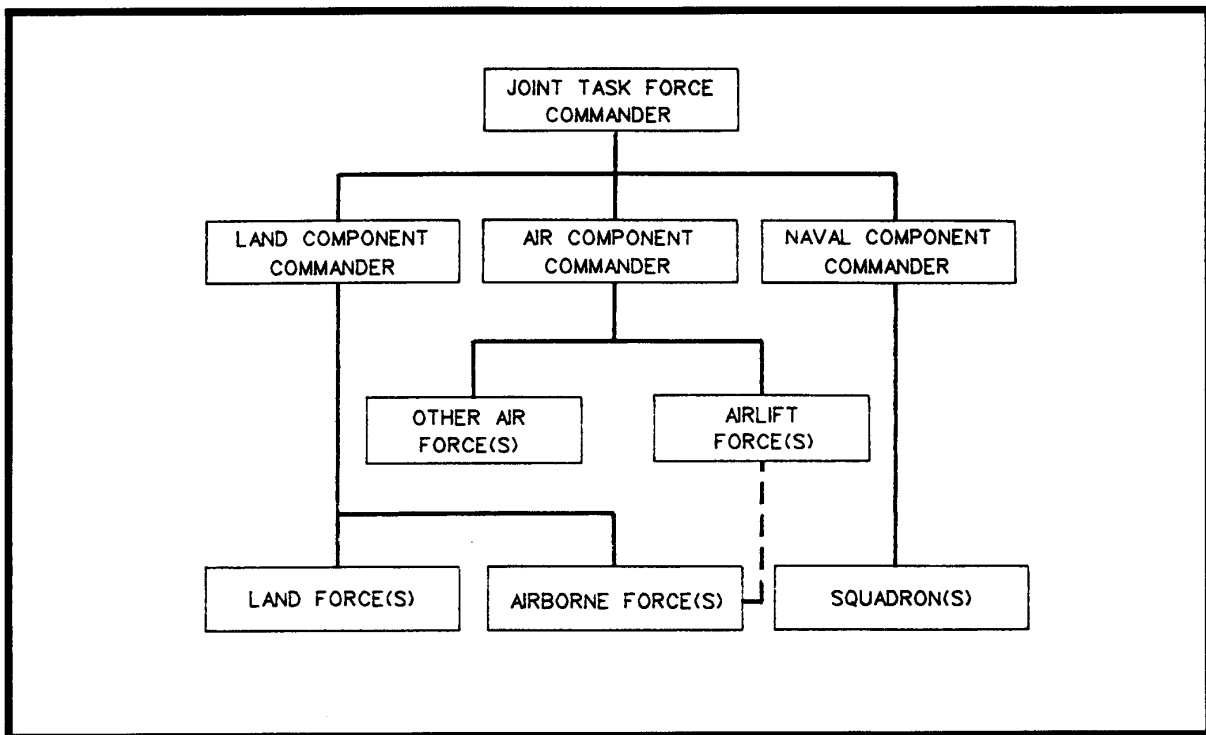


Figure 2-2-1 Possible Chain of Command for a Large Scale Joint Task Force Operation.

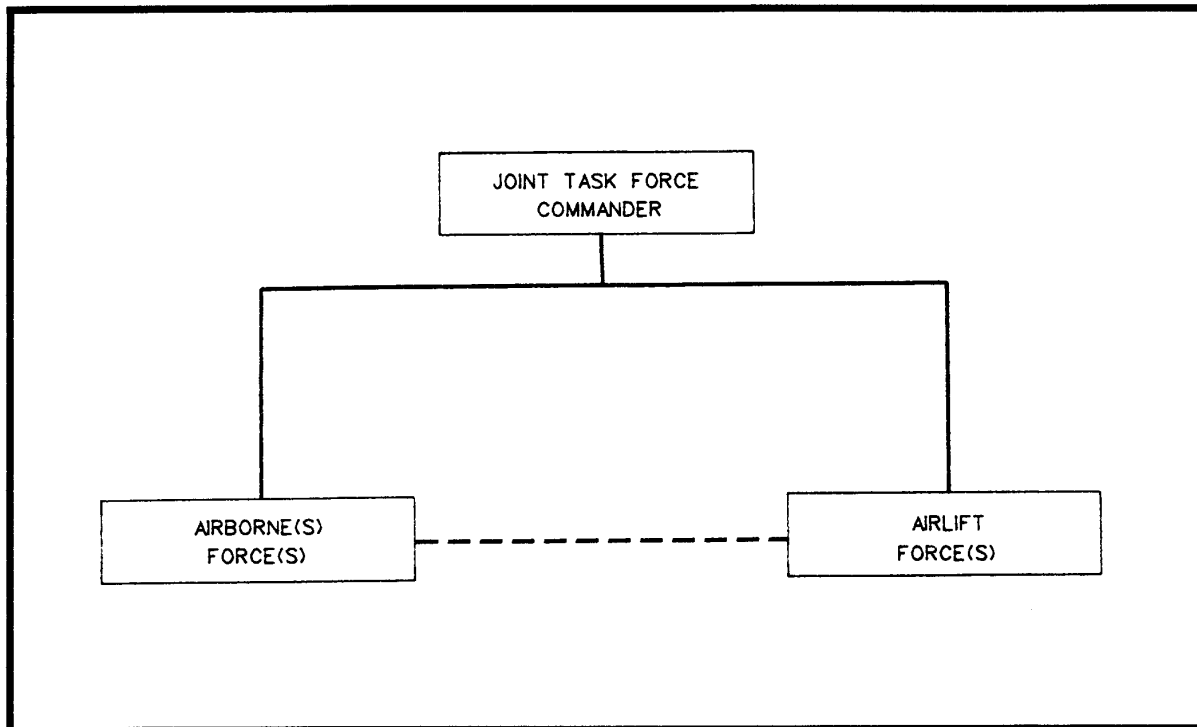


Figure 2-2-2 Possible Chain of Command for Independent Airborne Operations

16. Commanders at all levels must maintain personal contact with their subordinate forces. This will result in:

- a. clearer orders, with less change of misunderstanding;
- b. increased mutual confidence; and
- c. improved morale.

17. When an operation is conducted within the zone of action or vicinity of own forces, the tasks of those forces and the airborne force must be well defined and coordinated to ensure safety. Co-ordination is achieved primarily by: exchanging information and intelligence, integrating fire support plans, establishing reconnaissance procedures and fire support co-ordination measures (particularly the fire support co-ordination line if tactical air support is involved), and by the airborne force providing liaison officers (LOs) to the other forces.

18. Co-ordination is also required when two or more airborne forces operate in proximity to one another. In this case clear command and control relationships must be established.

19. When a link-up is intended, command responsibilities are determined as early as possible during planning. Normally command devolves upon the senior land force commander in whose area of responsibility the airborne force will operate.

SECTION 3

CONTROL

INTRODUCTION

1. There are a variety of measures and techniques available to a commander that allow control and co-ordination of the movement and action of the troops. These acquire even more importance in the conduct of airborne operations where units and HQ must be moved over great distances and marshalled at their departure airfield(s) while battle procedure is ongoing, and where units must be able to enter battle following a sudden change of conditions and environment, even before the controlling HQ can regroup and acquire control following a parachute deployment. The most important measure is a sound and simple plan on which troops are thoroughly briefed at all levels. All levels of command must fully understand the commander's intention for the entire operation and must be able to operate with minimal or no direction once the airborne assault has been initiated.

CONTROL MEASURES

2. **Standing Operating Procedures (SOPs).** An airborne force must be able to react rapidly to exploit a favourable situation. Speed in the mounting and conduct of operations is achieved by mastering clear and concise SOPs. In particular, the joint drills of movement and deployment must be constantly practised with a view towards evolutionary improvements. Suggested headings for an airborne force SOP are listed in Annex A.

TACTICAL CONTROLS

3. A commander controls and co-ordinates movement, both in time and in space, by detailing the following:

- a. the allocation of DZs (primary, alternate and pathfinder);
- b. DZ rendezvous (RVs);
- c. axes of advance;
- d. report lines;
- e. boundaries between units or sub-units;
- f. objectives;
- g. limits of exploitation;
- h. fire co-ordination line (FCL) and link-up point(s), for the link-up or withdrawal phase of the operation;

- j. key timings such as NOT BEFORE, NOT LATER THAN, or BY a certain time;
and
- k. extraction points if troops are to be extracted by air or by sea.

SECTION 4

COMBAT INTELLIGENCE

GENERAL

1. Knowledge of the situation influences a commander's ability to exercise command. The aim of a combat intelligence system is to obtain information from all available sources and to process it rapidly into accurate intelligence for timely use. Accurate intelligence will enable a commander to:

- a. arrive at timely decisions in conducting operations;
- b. select targets for the most effective use of fire-power;
- c. assist in planning future operations; and
- d. avoid being surprised.

2. An airborne force commander should have information as comprehensive as possible about the location, intention and capability of the enemy, the terrain, and probable weather for the duration of the operation. This may be difficult to achieve for airborne operations where the objectives are located deep in enemy territory.

3. **Information on the Enemy.** Prior to detailed planning, intelligence sources, surveillance and reconnaissance means are used to obtain information on the enemy, such as the:

- a. air defence weapons and acquisition means, particularly along intended flight routes and in the objective area;
- b. anti-airborne obstacles, which may be located in proposed DZs;
- c. capability to attack airborne forces during landing and consolidation, and the ability to prevent or delay link-up with friendly land forces; and
- d. armour reserves and security forces which may be used in countermoves.

INTELLIGENCE PLANNING FOR PARACHUTE OPERATIONS

4. Intelligence planning for parachute operations is conducted in accordance with the same principles and procedures discussed in B-GL-315-002/FP-001, Combat Intelligence.

5. Intelligence gathering must not be left to the specialists alone. All ranks must be trained to send back all information, both positive and negative, immediately, without attempting to evaluate or interpret it.

SOURCES OF INFORMATION

6. The chief sources of information available to the intelligence staff are:

- a. infantry patrols, observation posts(OPs) and listening posts;
- b. reconnaissance platoon patrols;
- c. artillery observation posts;
- d. ground surveillance devices,
- e. aerial surveillance and reconnaissance;
- f. pathfinders;
- g. flanking and higher HQs;
- h. prisoners of war (PWs);
- j. local inhabitants; and
- k. radio nets and (LOs) of non-organic supporting arms.

7. In operations against guerilla forces, collection procedures must be adapted to each situation. The military agencies must co-ordinate their work with that of the local police. Intelligence personnel require intimate knowledge of local customs, personalities, languages and cultural background.

DUTIES OF THE INTELLIGENCE STAFF

8. The intelligence staff must:

- a. prior to deployment -
 - (1) complete a full terrain analysis of the area of operations and construct briefing aids;
 - (2) obtain weather forecasts for the anticipated period of operations;
 - (3) produce, for the airborne force commander, a full intelligence estimate of the enemies' likely actions; and
 - (4) produce a data base on the opposing enemy force; and
- b. after deployment -

- (1) direct the system of intelligence within the force;
- (2) collate and process the flow of information to produce intelligence and update the data base;
- (3) update terrain information;
- (4) monitor the progress of battle and situation in the areas of flanking units/formations;
- (5) maintain up-to-date intelligence maps and records;
- (6) maintain an intelligence estimate of the enemy's courses of action for the force commander;
- (7) systematically exploit sources to obtain more intelligence or fill in gaps in the data base;
- (8) carry out liaison with flanking and higher units/ formations;
- (9) in conjunction with the operations (Ops) Staff, carry out operations security (OPSEC); and
- (10) obtain updated meteorological data for the airborne force commander.

9. Updated information on the enemy in the (DZ's) is crucial. It must be possible to cancel or modify the operation at the very last instant if evidence of strong enemy forces near the is detected.

SECURITY

10. **General.** The counterpart of intelligence is OPSEC. Security measures consist of actions aimed at preventing the leakage of information, unauthorized access to vital material, and exposure of personnel to hostile influence.

11. **Security Measures.** These range from the education of the troops in security matters to tactical security measures such as concealment, camouflage, and deception. Security measures must be adopted during the battle procedure when troops are moving to and waiting at the departure airfield. Quarantine arrangements may be essential to protect security of operational information.

SECTION 5

CONTROL OF FIRE SUPPORT

GENERAL

1. Until the force's organic fire support resources have landed and assembled during an airborne assault, reliance for fire support must be placed on close air support, long-range missiles, non-organic artillery, and naval gunfire.
2. Co-ordination of fire support is the responsibility of the airborne artillery commander assisted by an air or sea representative, if allocated. The airborne artillery commander is the commander's advisor on all fire support.

FIRE PLANNING

3. Fire planning for airborne operations requires that the following be considered:
 - a. All available fire support (pre-planned or on call) must be known as early as possible so that the commander's ground tactical and air landing plans can be allotted the fire support required.
 - b. Close air support will be necessary to augment organic fire support throughout the operation.
 - c. Once the force is on the ground, fire support is essential for the local defence of the area, and to cover flight route approaches to the DZ for subsequent airlifts.
 - d. To facilitate the early development of fire support co-ordination at the DZ, both post OP and forward air controller (FAC) parties (if allocated) should be included in the first aircraft loads. If pathfinders are used, a FAC-trained forward observation officer (FOO) should accompany this group.
 - e. Alternate plans for continued fire support must be made to counter a communications failure or electronic jamming by the enemy.
 - f. During the ground tactical phase of any airborne operation, the control of organic support will be decentralized to the level where it can be most effectively exercised.
 - g. The naval gunfire, other allotted artillery, and close air support should be employed on missions beyond the capability of the organic support.

FIRE SUPPORT CO-ORDINATION

4. The fire support co-ordination centre (FSCC) is a cell at the airborne force HQ. The FSCC is based on the tactical HQ of the airborne artillery and is responsible for coordinating all organic and non-organic fire support available to the force. This support may consist of all or any combination of:

- a. organic support which may be either light guns/howitzers or mortars, or a combination of both;
- b. non-organic artillery;
- c. ground attack fighters;
- d. bombers;
- e. attack or armed helicopters; and
- f. naval gunfire.

5. The number and variety of fire support weapons and ground attack fighter aircraft available necessitates that safety measures be imposed to ensure that fire is not brought to bear on our own troops. The following lines may be established to ensure the safety of friendly forces:

- a. **No Fire Line (NFL)**. Artillery, aircraft, or ships must not fire short of this line, except on the request of the supported arms commander, but they may fire beyond this line at any time without danger to friendly troops. This line should be easy to identify on the ground.
- b. **Fire Support Co-ordination Line (FSCL)**. A line established by the appropriate ground commander to ensure coordination of fire not under the ground commander's control but which may affect current operations. It should follow well-defined ground features whenever possible. The establishment of the FSCL is normally coordinated with the air and/or naval commanders concerned.
- c. **Restrictive Fire Line (RFL)**. The RFL is established to co-ordinate fire between airborne forces and link-up forces or between two converging forces. It is used to regulate direct and indirect fire and offensive air strikes. Fire with effects extending beyond this line will be coordinated with the unit on the other side. It is established by the HQ which controls both forces, based upon submissions by them.

ORGANIC FIRE SUPPORT

6. **Artillery.** Providing due consideration is given to the availability of ammunition, the lighter scale of personnel and vehicles and the fact that other artillery may not be available to the airborne force in the early stages of an operation, the same principles of field artillery employment apply. A secondary and vital role of the artillery is anti-armour defence.
7. **Air Defence Artillery.** AD resources for the defence of the airhead must be delivered and be in place at the earliest opportunity of deployment. Air space management and engagement of targets will be coordinated between the FSCC and the air defenders. Control measures to preclude the engagement of friendly air will be detailed in the JTFC's orders.
8. **Mortars.** Because of the limited range of the medium mortar it is likely that a more decentralized control of these weapons will be imposed if they are selected as the equipment for the organic fire support elements in any operation.

AIRSPACE CONTROL

9. Airspace control is effected by liaison and co-ordination with all airspace control agencies, in particular, the highest artillery HQ element FSCC in the airhead, DZ or LZ.

CLOSE AIR SUPPORT

10. Close air support against targets in close proximity to friendly forces must be carefully controlled. Each air mission requires detailed integration with the fire and manoeuvre of the friendly ground forces. The airborne artillery will control close air support strikes through FAC.
11. A tactical air control party (TACP) is not likely to be allocated to the force. However, because of the requirement to control air space, the highest artillery HQ element in the airhead or DZ will be required to clear target engagements to ensure the safety of aircraft approaches.

NAVAL GUNFIRE SUPPORT

12. Canadian ships have guns which can provide limited support for land forces. If allied ships are in support a variety of weapons may be available.
13. Ammunition available consists of high explosive, armour piercing, and illuminating shells with quick, delay, time, and variable time f uses. Limitations are:
 - a. long, narrow, beaten zone;
 - b. limited magazine capacity; and
 - c. safety considerations if the vessel is firing while manoeuvring.

14. Control of naval gunfire is usually carried out by specially trained liaison teams which are made up of an LO, spotters and communications personnel and equipment. The force may be allocated a Naval Gunfire Support Liaison Officer (NGSLO). A shore fire control party may be under the NGSLO's direct control. The spotter with the shore fire control party is most likely to be a specially-trained officer from the airborne artillery.

15. Naval spotters may not be parachute-trained and likely will not be in a position where they can direct fire. Therefore, forward observers with the artillery, or other officers within the force, should be familiar with the basic procedures of naval gunfire support and have the means of communications to the supporting fire agency, to call for and adjust naval gunfire.

SECTION 6

COMMUNICATIONS

GENERAL

1. Communications have been, historically, a major problem in airborne operations. Plans must be based on the assumption that the enemy will quickly jam radio communications and that some radios will not survive the drop. These must be backed up by spare sets and alternative means such as pre-arranged signals, lines etc.
2. Communications are particularly important between the HQ of the JTFC and the forces conducting the operation. An airborne tactical command post may be a useful supplement to normal land-based communications, although its facilities are limited. Airborne, ground, or satellite relay communications will likely be required to provide dependable communications.
3. **Methods of Communicating.** An airborne force will use every means of communication available to them including radio, line, LOs, dispatch riders, runners and visual signals.

FORCE COMMUNICATIONS

4. **Radio.** The force employs the following types of radio:
 - a. very high frequency(frequency modulated)(VHF(FM)) radio nets are the normal method of communication for voice transmission in the mounted and dismounted roles.
 - b. high frequency(single side band) (HF(SSB))radios are available, both as vehicle-borne and man-portable equipments, for alternate nets where range or terrain preclude the use of VHF nets. The modes of operation are voice or morse telegraphy.
 - c. ultra-high frequency(UHF(AM)) man-portable radios are provided for short range ground-air voice communications.
 - d. Satellite Communication Terminal (VLRR); and
 - e. FAX.
5. **Line.** A maximum possible amount of field cable will be carried by the force. Telephones and small manual switchboards will be provided in the force HQ and within the units.

6. **LOs, Dispatch Riders, and Runners.** Limited resources are available within the force for hand carriage of information. The few dispatch riders do not permit a frequent delivery service and should be reserved for special details. Full use must be made of LOs and visiting officers to carry dispatches. In clandestine operations a runner or courier, including air delivery, may be the only safe means of communications.

7. The visual means available within the force include heat sources (for FLIR, ultraviolet, infrared, phosphorescent sources of light, as well as the visible spectrum of light generated by heat) and panel code for communicating to aircraft.

8. **Electronic Beacons.** Electronic beacons can be utilized to assist aircraft in terminal navigation.

9. **Indigenous.** Many communities will still have operational communications systems that may be utilized. When planning for an operation these systems should be taken into consideration as back up and strategic links.

COMMUNICATION TO HIGHER FORMATIONS AND SUPPORTING UNITS

10. Rear-link communications to the controlling HQ may be provided from one of the following sources:

- a. the higher formation, and
- b. by allocation from special task resources within the force.

AIRBORNE OPERATIONS

11. The following major factors distinguish communication requirements in airborne operations from those applicable to more orthodox land operations:

- a. The phased introduction of small, tactical sub-units, usually into an area dominated by the enemy, can only be accomplished if a high standard of communication is attained. The integration of each successive lift, with the consequent regrouping and reorganization of command, demands a corresponding extension and reorganization of the communications network. Detailed planning, and briefings at all levels, are needed to effect this transition.
- b. The reliance placed on offensive air support and the dependence placed on other formations and units for artillery and logistical support dictates a closely coordinated and foolproof system for communications.
- c. The use of vehicles in an airborne operation is generally restricted by the availability of airlift, at least during the initial stages. The bulk of communications equipment of the force must be capable of functioning from man-portable loads.

12. Communications requirements are as follows:

- a. **During the Mounting Phase.** Emphasis on security is mandatory during this phase. All communications subject to enemy interception should appear as normal as possible. Radio silence may be imposed. Maximum use should be made of hand carriage.
- b. **During the Air Operation.** Ground-air communications during the fly-in are critical to allow for the implementation of the alternate plan or even cancelling the operation at this stage (refer to Figure 26-1). The airborne force commander and each senior passenger must monitor the pathfinder frequency on one of the aircraft HF sets. Normally, only the airborne force commander would transmit after verbal consultation with the lead pilot. Transmission must be kept to a minimum.
- c. **After the Airborne Assault Phase.** Rearward and ground-to-air communications must be established by the pathfinder group. When the airborne element is complete on the ground the following communications are needed (refer to Figure 2-6-2).
 - (1) internal communications,
 - (2) communications to call for air, artillery, or naval support as appropriate,
 - (3) communications to the mounting area to call for resupply,
 - (4) communications to the higher HQ, and
 - (5) communications with ground forces with whom link-up is to occur.

13. **Planning Considerations.** The following points should be noted when planning forward communications for airborne operations:

- a. **General.** Establishment of communications must be executed as fast as possible. After landing, radios which have been subject to shock may have to be opened under fire and operated at extreme range. This requires a high standard of training and rehearsal.
- b. **Priorities.** Communications must be established with available resources as they arrive, in accordance with prearranged priorities. An example of this would be that, key radio sets may not appear at the DZ assembly areas, and must be replaced by lower priority sets.

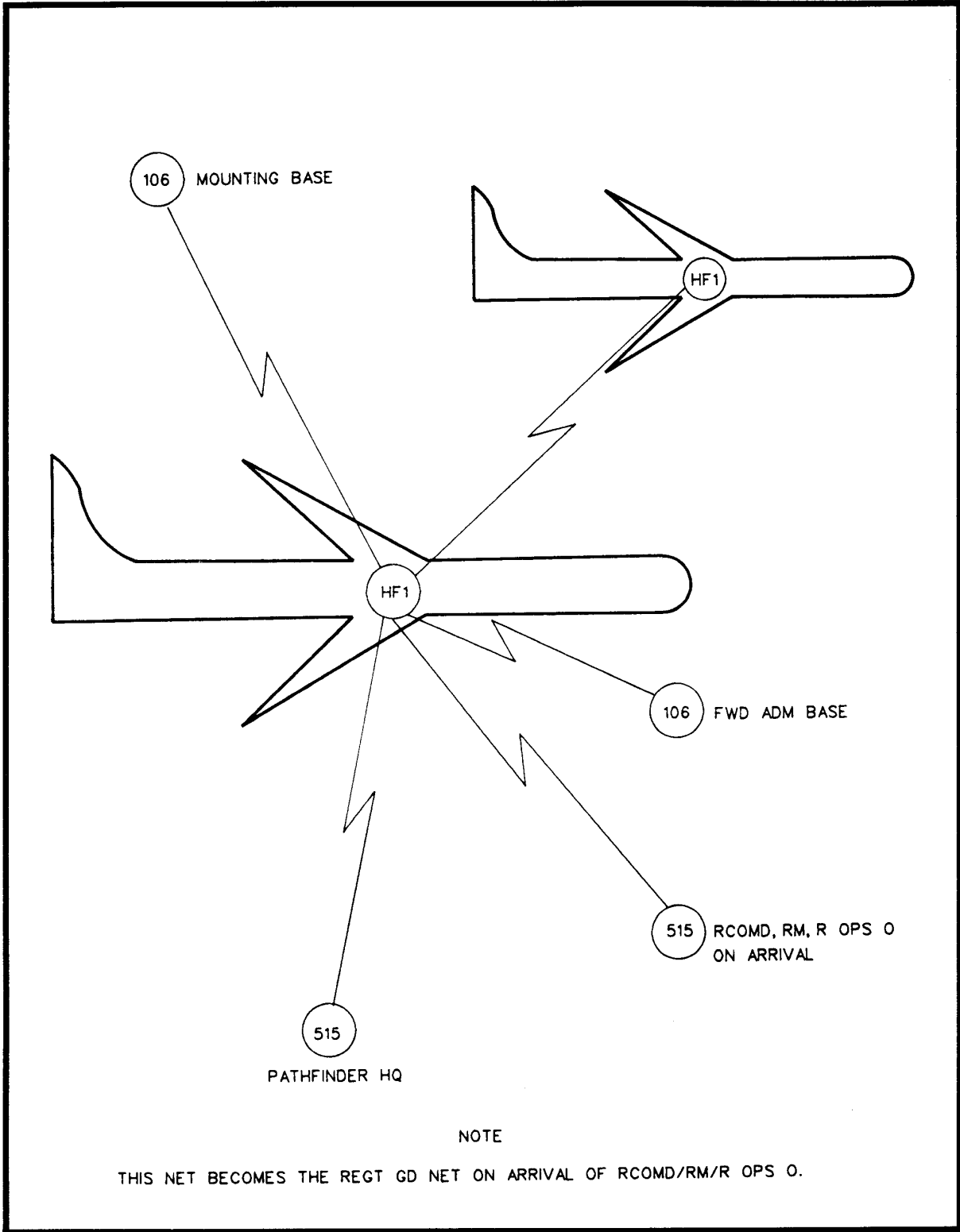


Figure 2-6-1 Communications During the Air Movement Phase

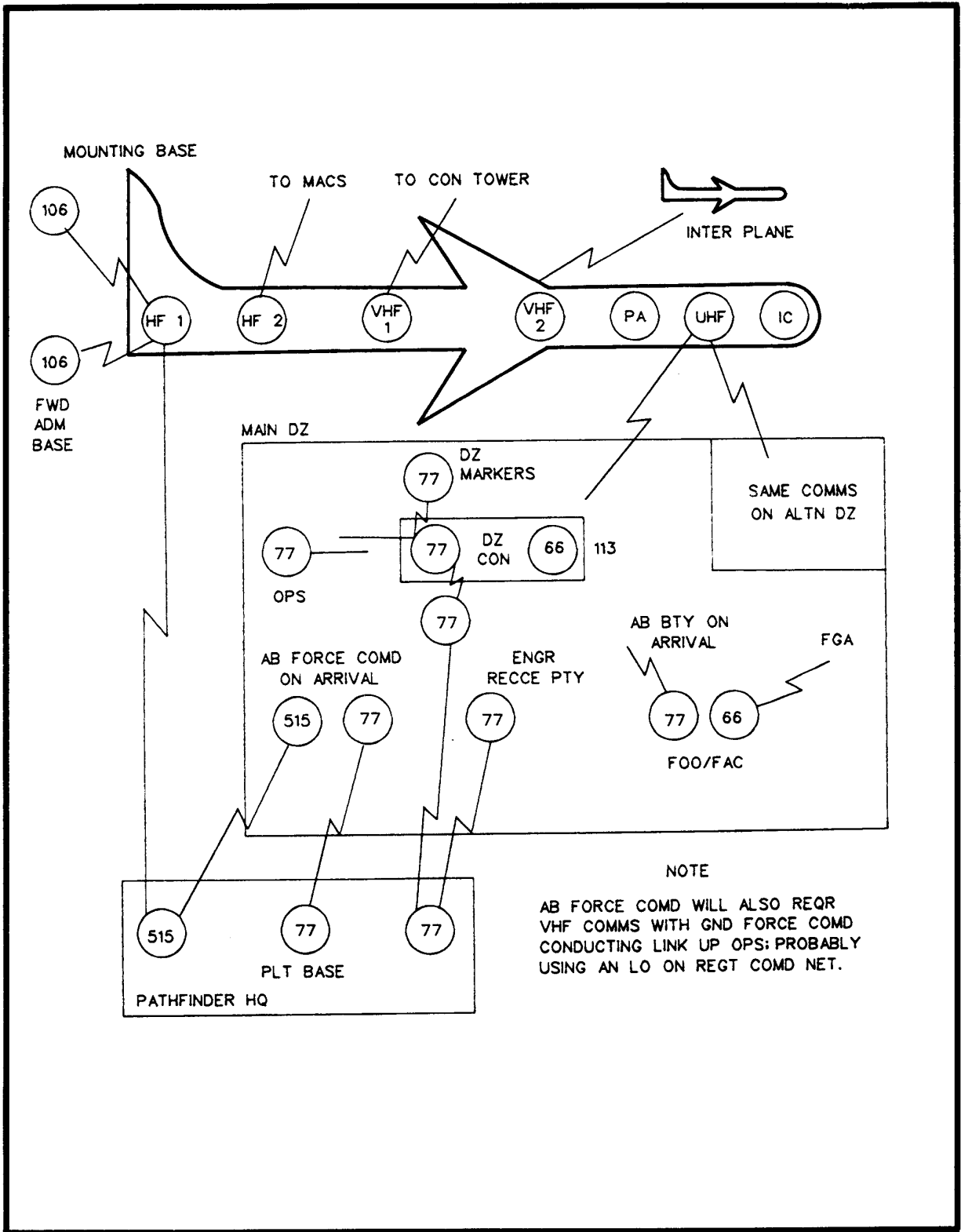


Figure 2-6-2 Communications During a Seize and Hold Operation with a Link-Up

- c. **Casualties.** The communications plan must be sufficiently flexible to allow for a high casualty rate of members and equipment:
 - (1) Replacement equipment must be readily available on the ground and procedures must provide for call-up to replace lost or unserviceable items.
 - (2) Key radio detachments and radio sets must be duplicated in separate aircraft loads.
- d. **Frequencies.** Allocation of workable frequencies for both local, and particularly, long-range communications is vital.
- e. **Security.** The reliance on long-range radio communication, which is subject to interception, makes a high standard of communication security mandatory. Signal operation instructions must state clearly under what conditions transmissions may be made in clear. The security of ciphers and codes requires special arrangements for the following reasons -
 - (1) Crypto personnel and equipment are liable to capture or may fail to arrive at the objective. Compromise procedures must be flexible and well detailed.
 - (2) The larger the number of radio nets employed the more the problem of distribution of communication security material is compounded and the risk of compromise is increased. Additionally, it may be necessary to carry secret information relating to supporting or link-up ground formations, eg, code names, address groups and net identification sign (NIS) extracts, frequencies, etc, which must not fall into enemy hands. Detailed instructions on destruction of crypto and classified material must be SOP.
 - (3) Because proximity to the enemy may preclude the use of machine equipment, manual, one-time cipher systems can be used. These are secure but time-consuming to employ.
- f. **EMCON.** As a rule, the EMCON policy is set only after a careful assessment of the enemy's EW resources. Radio silence is considered the norm prior to P-hr; however, it may not always be required. While airborne forces should minimize their communications there will usually be a requirement to transmit codewords, on contact and to coordinate indirect fire support.

SPECIAL OPERATIONS

14. **General.** Operations including pathfinder operations and long range reconnaissance which involve covert penetration of enemy held or dominated areas present special requirements for communications.

15. **Communication Requirements.** Detachments operating in enemy territory usually enter by infiltration methods. Rigid limitations on size and weight of loads will normally preclude all but the basic man-portable communication equipment. Considerable improvisation may be necessary, particularly where the operational area is large and where the distances to the operational base are extreme. Communications from these detachments are subject not only to interception, which establishes the detachment's presence and may compromise the signalling system, but also to other measures which may reveal the detachment's precise location. Security becomes the overriding consideration in the selection of the means and methods of communication to be employed. Long-range relay stations may be required to pass information back to HQ.

MAINTENANCE OF SIGNALS EQUIPMENT.

16. Airborne operations present little opportunity for back-loading and receiving replacement equipment. Therefore, communications can only be maintained by:

- a. exercising strict economy in operation while maintaining an adequate reserve;
- b. ensuring that spare equipment and ancillaries are readily available; and
- c. ensuring that preventive maintenance is completed and that, where necessary, environmental maintenance routines are followed.

CHAPTER 3

CONDUCT OF AIRBORNE OPERATIONS

SECTION 1

INTRODUCTION

GENERAL

1. Airborne operations involve the movement by air and the delivery by airborne assault of combat forces and their logistic support for the execution of tactical or strategic missions. The operation may be expanded or reinforced by subsequent airmobile operations (helicopter) or air landing of assault aircraft.

OPERATIONAL PHASES

2. The planning, preparation, and execution of an airborne operation is based on four interrelated phases.

- a. **The Mounting Phase.** This is the period of time from receipt of the warning order or planning directive until the tactical transport aircraft take off on the mission. During this period, joint tactical and support planning is accomplished; troops, equipment, and supplies are assembled and readied; and briefings are conducted. Marshalling takes place during the last part of the mounting phase, and includes movement of participating personnel, supplies, and equipment to departure areas and the loading into aircraft.
- b. **The Air Movement Phase.** This phase begins with the take-off of loaded tactical transport aircraft from departure airfields and ends with the delivery of units to their DZs or LZs.
- c. **The Assault Phase.** This is the period beginning with the airborne assault of units on DZs, and extends through the seizure of initial objectives and consolidation of an initial airhead. The assault phase will normally involve a stream of aircraft with specific groups which may be delivered in one drop or they may each have their own drop time or 'P' hour. These groups are usually referred to as the:
 - (1) pathfinder group,
 - (2) assault group,
 - (3) reserve group, and
 - (4) support group.

- d. **The Subsequent Operations Phase.** After the assault phase, operations in the objective area may consist of offence, defence, link-up, or withdrawal. Early ground link-up with committed airborne forces is frequently a part of an operation. However, withdrawal without link-up after accomplishment of the mission may be planned or forced by enemy action. Subsequent operations may also include forward or rearward passage of lines.

TERMINATION OF AN AIRBORNE OPERATION

3. The termination of an airborne operation depends upon the accomplishment of the assigned missions and tasks. The decision whether to terminate an airborne operation will be made by the commander directing participation of both land and air elements.
4. Normally an airborne operation will be considered terminated when the airborne force has been extracted from the area of operations.

SECTION 2

TYPES OF OPERATIONS

GENERAL

1. By nature, airborne forces are lightly equipped and usually on foot, their organization and training make them particularly suitable for the following types of operations:

- a. seize and hold;
- b. airborne raid;
- c. area interdiction;
- d. special operations such as -
 - (1) deep penetration patrols,
 - (2) amphibious operations,
 - (3) airmobile operations, or
 - (4) internal security operations, and
- e. establishing airheads' evacuation of Canadian civilians from areas of unrest.

2. Specific guidance is available in our existing doctrine manuals for all of the above special operations.

SECTION 3

SEIZE AND HOLD OPERATION

GENERAL

1. The title appropriately suggests that there are two distinct phases to this operation. There is an offensive phase, to capture/seize assigned objectives and a defensive phase to hold the objective area until link-up or withdrawal occurs.

OFFENSIVE PHASE

2. During this phase, combat units will parachute onto or as close as possible to their objectives. Use of unit size DZs permits rapid assembly and reorganization of the main attacking/assault force. Some sub-unit DZs may be required to insert forces tasked to prevent enemy reinforcement or withdrawal to/from the objective area. Refer to Figure 3-3-1 and B-GL-301-001/FT-001, Land Formations in Battle, for detailed guidance for the attack.

DEFENSIVE PHASE

3. Once the airborne force has secured its objective area, it may have to hold until a subsequent link-up is complete. Refer to Figure 3-2 B-GL-301-001/FT-001, Land Formations in Battle, it provides the detailed guidance required for defence and link-up operations. The appropriate chapters must be studied and applied to this vital phase of the operation.

4. Close co-operation is required between all components to accomplish the mission. This mutual co-operation and co-ordination is especially vital during link-up. Co-ordination points, identification measures, fire support, unity of command and exchange of liaison parties must be coordinated well in advance. The onus is on the airborne force commander to provide the LO as regular army formations do not, as a rule, have parachutists for LO parties.

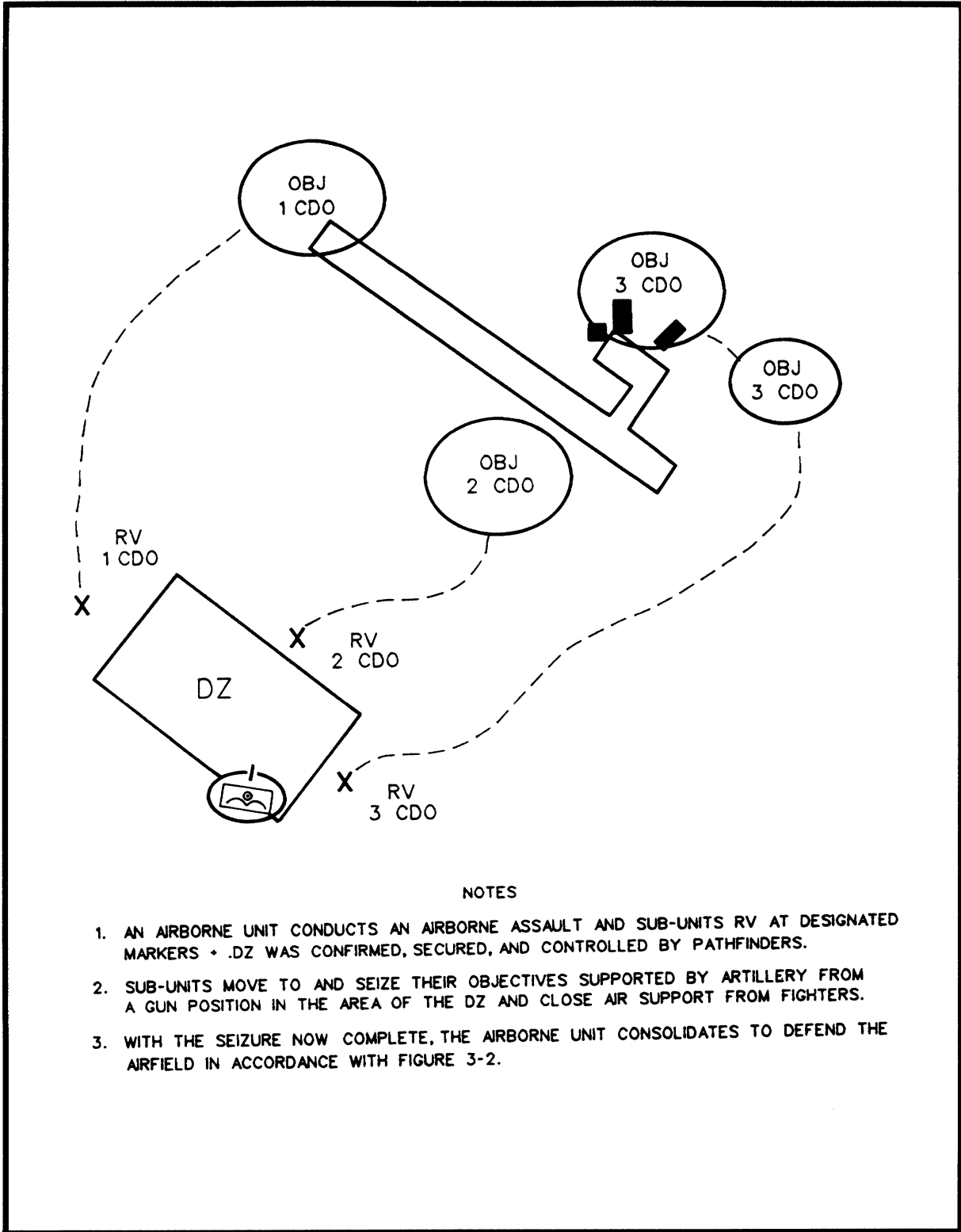


Figure 3-3-1 Example of an Assault During a Seize and Hold Operation

USE OF HELICOPTERS

5. Helicopters and airmobile troops may be used at any time during the operation for one or more of the following:

- a. reconnaissance,
- b. airborne FOO or FAC,
- c. radio rebroadcast (RRB),
- d. fire support from attack helicopters,
- e. reinforcement,
- f. casualty evacuation,
- g. command/liaison, and
- h. tactical mobility.

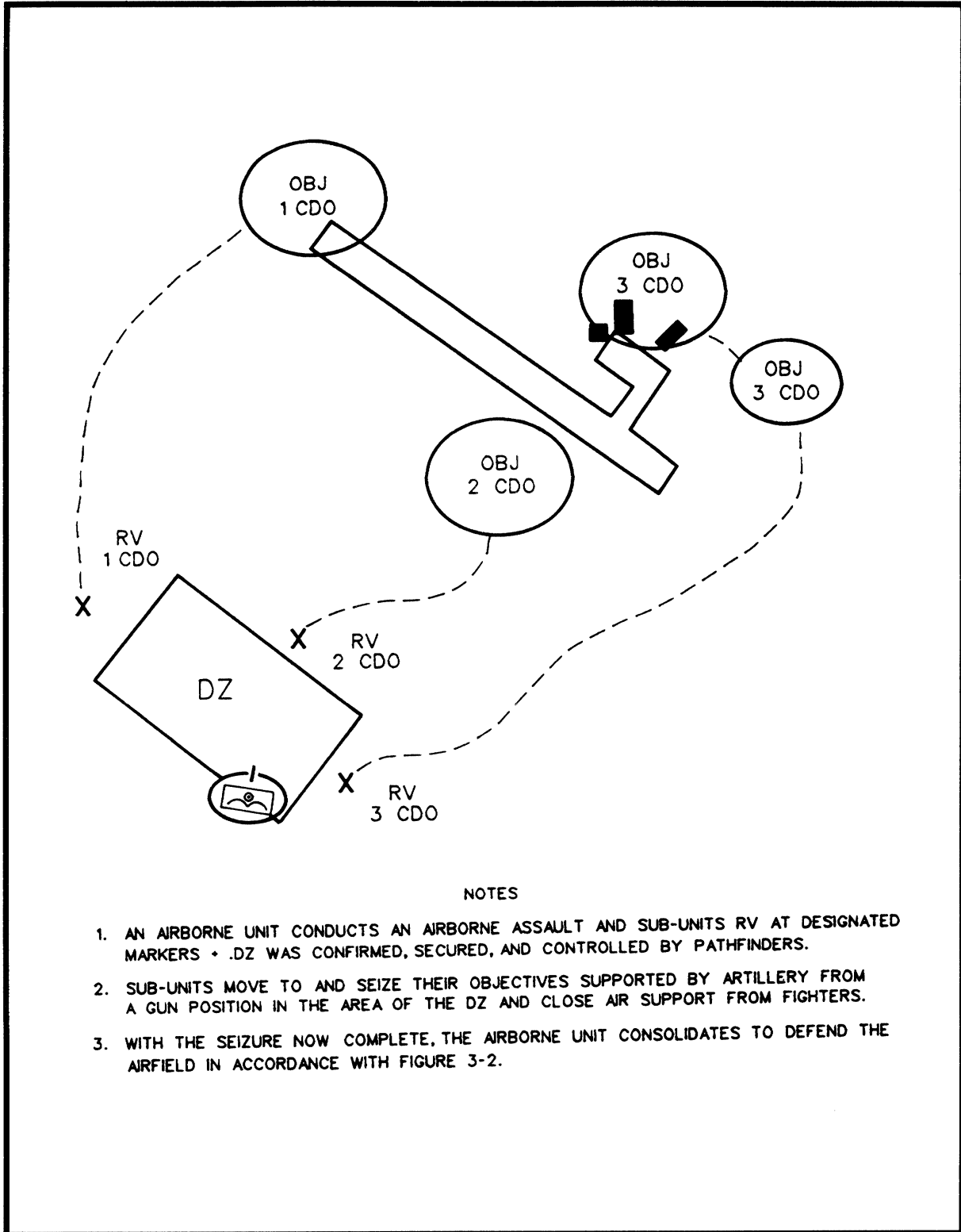


Figure 3-3-2 Example of Defence During a Seize and Hold Operation

SECTION 4

AIRBORNE RAID

GENERAL

1. An airborne raid is a surprise attack to accomplish a specific mission with no intention of holding the area attacked. It is characterized by a sudden strike to gain surprise and a rapid, deceptive extrication of the raiding force to avoid decisive engagement. An airborne raid is more likely than a ground raid to be beyond supporting distance of the nearest friendly troops.
2. Elements of an airborne force may be called upon to conduct airborne raids. These operations are normally planned at theatre or force level.
3. The size of the force employed depends on the mission, the nature and location of the objective, and the enemy situation. The force may vary from a platoon to a commando. The size of the force should be kept to the minimum necessary to accomplish the mission. An example is shown at Figure 3-4-1.

METHOD OF INFILTRATION

4. Airborne raids are similar to ground raids except that the raiding force parachutes into the objective area. Extrication may be by air or other methods. Parachuting permits the raiding force to bypass enemy positions, terrain, or distance barriers that may preclude a ground raid.

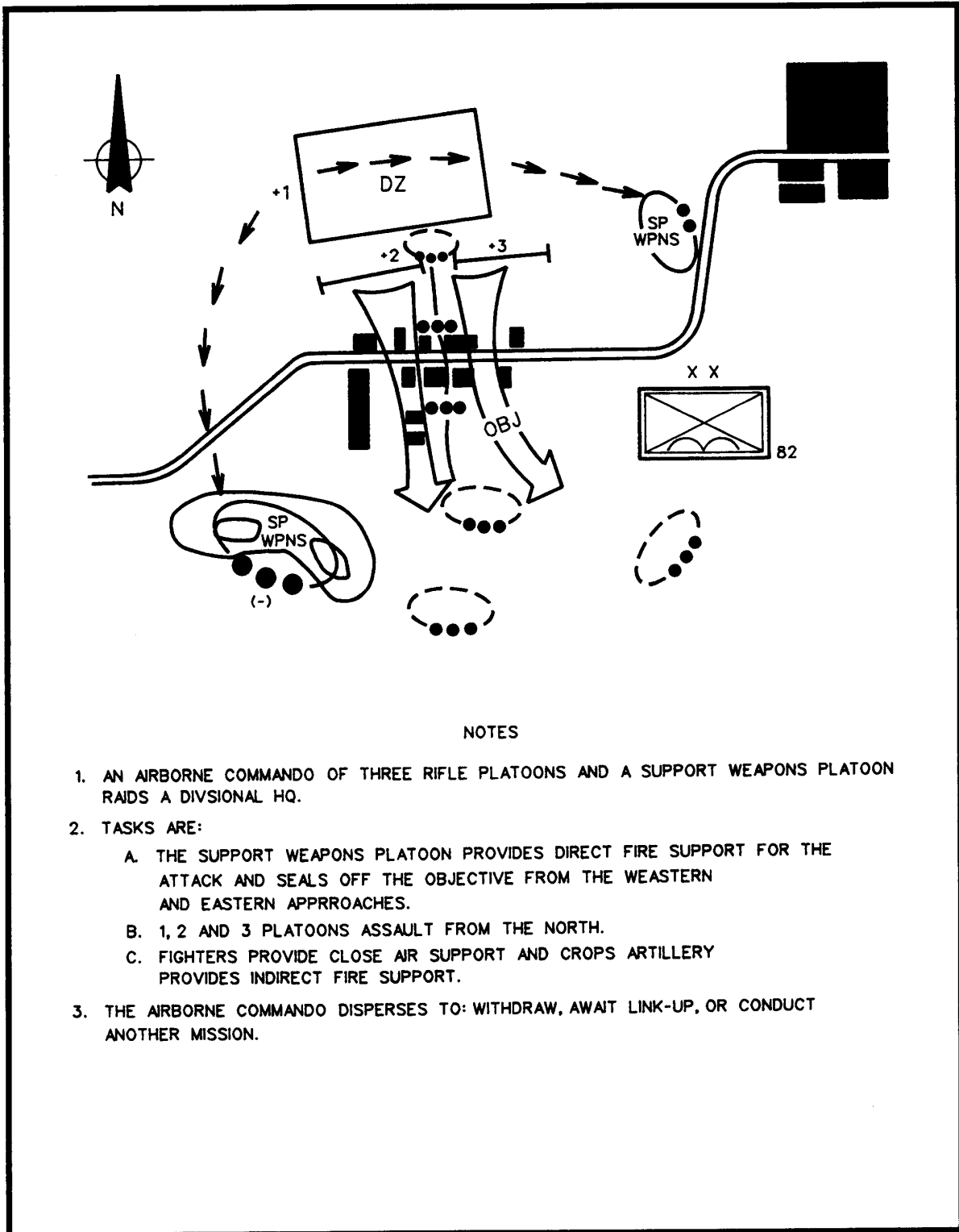


Figure 3-4-1 Example of an Airborne Raid at Commando Level

MISSIONS AND OBJECTIVES

5. Airborne raids may be conducted:
 - a. to obtain information about enemy defences;
 - b. to destroy enemy installations or positions;
 - c. to capture or kill key enemy personnel;
 - d. to rescue friendly personnel;
 - e. to draw attention away from other operations or to keep the enemy off balance. This forces the enemy to deploy additional units to protect its rear areas;
 - f. to harass or disrupt enemy operations; or
 - g. to seize critical equipment or carry out similar intelligence missions.

6. Objectives for the raiding force may be either deep in enemy territory or relatively close to the FEBA. The raiding force may operate separately or in conjunction with friendly guerilla forces to hamper enemy operations and support the mission of other friendly forces. Suitable objectives include:
 - a. command posts,
 - b. communication centres,
 - c. transportation networks,
 - d. airfield installations,
 - e. key personnel,
 - f. supply installations and facilities,
 - g. rear area HQ,
 - h. intelligence targets,
 - j. PW enclosures, and
 - k. nuclear weapon facilities.

ORGANIZATION OF THE RAIDING FORCE

7. To achieve flexibility the raiding force is organized and trained so that elements can act independently. Since a large force is easy to detect when moving from a DZ to the objective area or during the withdrawal, elements may move directly to their respective positions and withdraw to extraction point(s) by different routes. To ensure proper command and control, tactical integrity must be a key consideration during consolidation. In other words, complete sub- or sub-sub units are tasked to form one of the four basic elements of a raid. These are -

- a. the assault element,
- b. the support element,
- c. the security element, and
- d. the reserve.

8. **Assault Elements.** The efforts of all other elements of the raiding force are dedicated to allowing the assault element to spend sufficient time on the objective to accomplish the mission. The assault element is organized and trained to close with and destroy the enemy or capture the objective and then withdraw to the extrication point. Once the objective is captured the assault element may be required to rapidly complete the following actions before its withdrawal:

- a. dispatch search parties to comb the area for documents, specified or new equipment, key personnel and enemy pockets of resistance;
- b. dispatch demolition parties to destroy vehicles, equipment and/or installations;
- c. handle casualties and prepare them for evacuation; and
- d. handle PWs.

9. **Support Element.** This element of the raiding force provides fire support during the assault on the objective. It co-ordinates all supporting fire including close air support.

10. **Security Element.** The enemy must not be allowed to withdraw from or reinforce its position during the actual conduct of the raid. A security element seals off the objective during the assault.

11. **Reserve.** As is the case for any operation, it is desirable to have a reserve. This is not always practical in an airborne raid since the operation is of short duration. If the force is to be employed on other operations in the same general area following the raid, then a reserve would be required.

CONDUCT

12. **Time and Duration.** To gain surprise airborne raids are preferably carried out at night, at dawn, in twilight, or in fog, mist, or other conditions of poor visibility. The execution of a daylight raid requires the extensive use of supporting fire, including close air support, and measures to limit enemy observation and detection. The raid is executed as swiftly as possible and the raiding force is extricated before the enemy can react with significant force.

13. **Rehearsal.** Raids are rehearsed whenever possible. The more complex the planned operation, the greater the need for rehearsal. The ground tactical plan is rehearsed on terrain similar to the objective area and under conditions similar to those anticipated for the raid.

14. **Conduct of the Raid.** The parachute assault plan must enable the elements of the raiding force to assemble and carry out their assigned tasks without further regrouping. The actions of the raiding force elements are decentralized, and each operates as required by its own mission. These actions are coordinated by the raiding force commander. The raiding force commander can influence the action by using available supporting fire and the reserve. The raiding force commander must be alert for unexpected hostile reactions.

EXTRICATION OF THE RAIDING FORCE

15. This is frequently the most difficult and hazardous part of the operation. The exit must be carefully planned and timings must make allowance for the evacuation of casualties and stragglers. The exit may be less complicated through the point of landing, but it is often safer through another location. The raiding force could acquire any means of transport available in the area which would assist in the extrication. Battle simulators, delayed demolitions, booby traps, and close air support are useful in delaying the enemy's pursuit (refer to Figure 3-4-2).

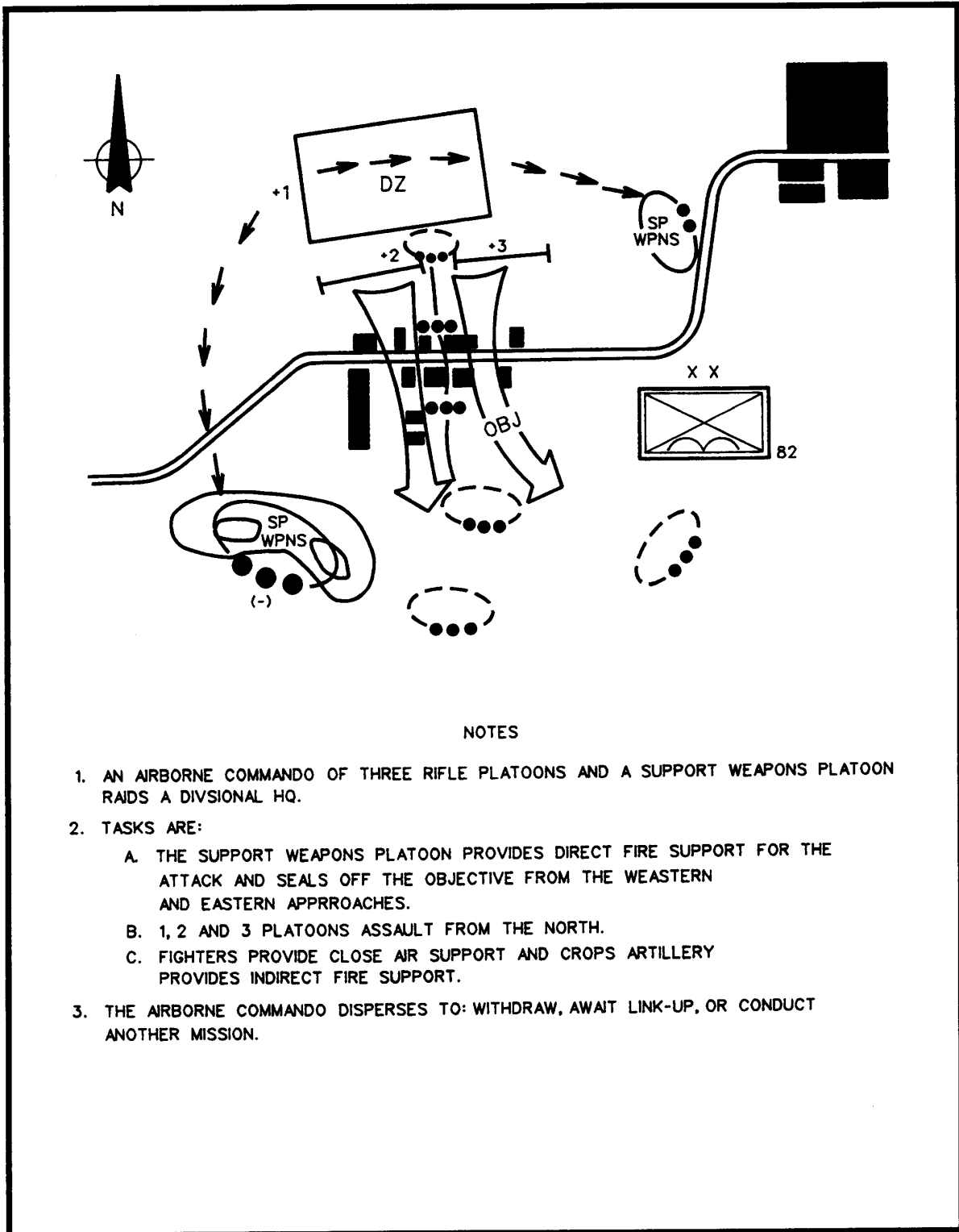


Figure 3-4-2 Layout of Extrication Zone (See CF ACM 60-260(1) , Annex C, Appendix One

16. Extrication methods available are as follows:

- a. The raiding force may be extricated by air, land, or sea. It may move overland for some distance to RV with aircraft away from the objective area or it may move overland by evasion and exfiltration. This latter method is favored when -
 - (1) the distance to friendly lines is relatively short;
 - (2) the terrain provides cover and concealment for the movement of small groups on foot, and limits the employment of mobile units against the raiding force;
 - (3) enemy forces are dispersed or under such pressure that they have difficulty in concentrating against the raiding force;
 - (4) the raiding force is equipped lightly and does not have the mission of evacuating PWs or materiel;
 - (5) the raiding force moves through an area occupied by friendly civilians, or where friendly guerilla forces can assist the extrication; or
 - (6) enemy fire, enemy air activity, adverse weather, or other factors prevent extrication by air.

- b. Submarine or naval surface vessels may be used for extrication by sea. Plans should provide for alternate beaches and for naval gunfire to cover the extrication if required.

SECTION 5

AREA INTERDICTION OPERATIONS

GENERAL

1. Airborne forces may be assigned an area interdiction mission. This type of operation is appropriate in conjunction with a major offensive by friendly forces and may be of short or long duration. Although the force commander retains overall control, the operation is characterized by assignment of sectors to sub-units within the overall area (refer to Figure 3-5-1).
2. Interdiction is the attack and disruption of enemy lines-of- communication installations with the object of destroying the enemy force and restricting its freedom of movement. It is the cumulative effect of numerous smaller offensive operations such as raids, ambushes, mining and sniping. Industrial facilities, military installations, and the enemy lines of communication are the most vulnerable and lucrative targets for interdiction operations.
3. A planned area interdiction programme aims at:
 - a. slowing the movement of enemy supplies, equipment, and raw materials;
 - b. the destruction of storage and production or maintenance facilities;
 - c. the destruction of, or damage to, military installations;
 - d. causing the enemy to commit large forces for rear area security; and
 - e. demoralizing enemy troops.
4. Likely targets for area interdiction operations are:
 - a. transport facilities such as railway lines and rolling stock, motor transport compounds, aircraft and airfield maintenance facilities, watercraft and port facilities;

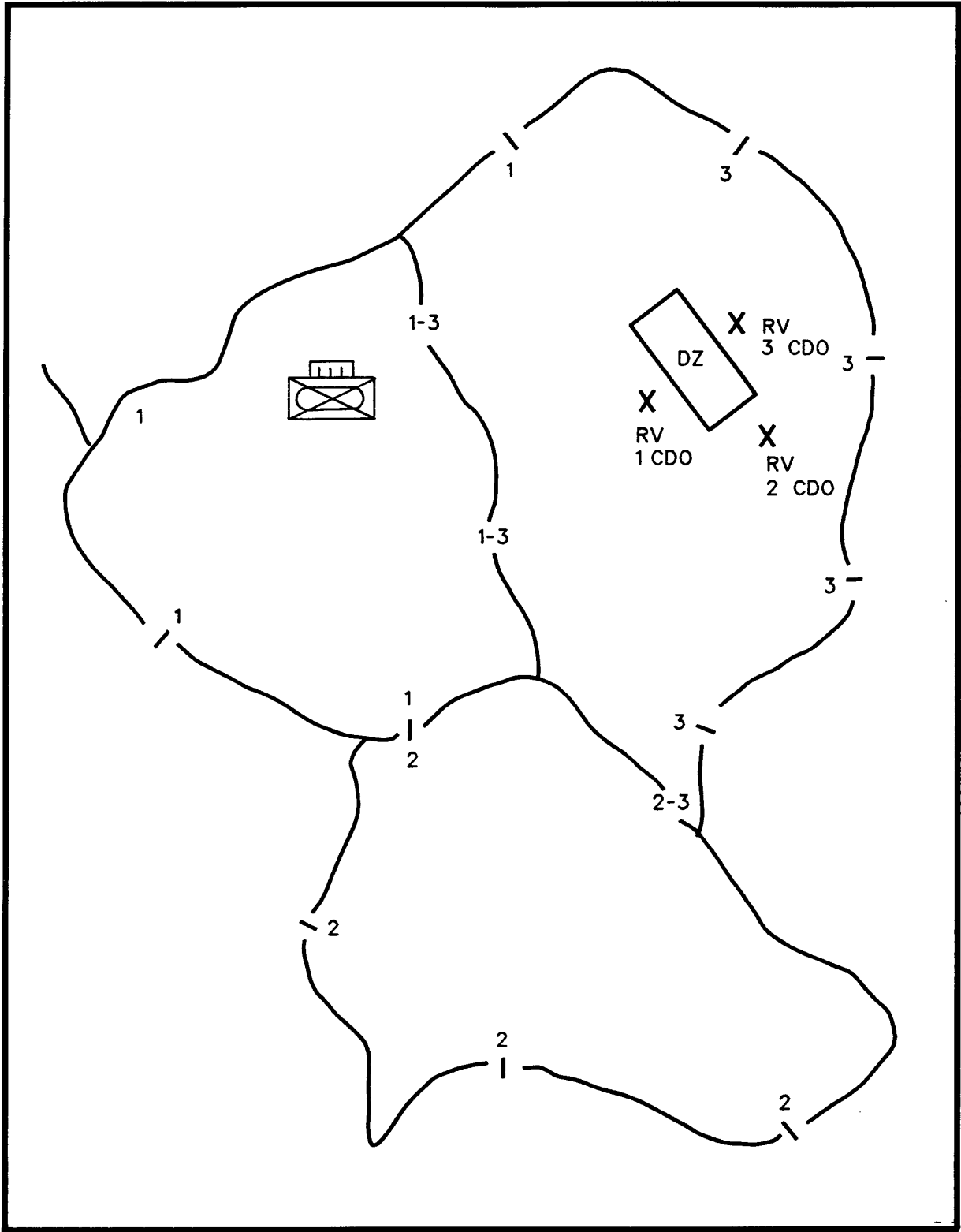


Figure 3-5-1 Area Interdiction Operation (not to scale)

- b. communication facilities such as telephone, telegraph, radio, and television installations;
 - c. power stations and sub-stations;
 - d. fuel storage and refinery installations for gas and oil; and
 - e. military stores installations and maintenance facilities.
5. The conduct of this type of operation must be planned at the highest level to ensure the achievement of the theatre commander's aim.

TERRAIN

6. Terrain that limits or restricts the off-road mobility of enemy forces and which favours concealment will assist the interdiction force in the accomplishment of the mission.

TACTICS EMPLOYED

7. The area assigned to the interdiction force is divided into sectors. Each of the subordinate elements of the force is responsible for operations within its assigned sector. The dispersed force presents few, if any, lucrative targets for enemy reaction troops.
8. The area assigned to the interdiction force must provide space for manoeuvre and permit the use of reconnaissance and security teams to ensure early detection of targets or enemy search and destroy parties.
9. The elements of the force operating in the various sectors should inflict maximum damage on any enemy force located in, or entering the objective area. No attempt should be made to deny completely the interdiction area to the enemy.
10. Equipment, weapons, or supplies that reduce the cross-country movement of the interdiction force are not normally brought into the area.
11. Administration. Because of their often precarious character careful consideration must be given to our lines-of-communication, eg, aid stations, evacuation points, refuelling facilities and delivery points. Use will often be made of enemy facilities, although bases may be established for missions of long duration. These should be avoided, however, due to their large security requirements.

MOBILITY

12. When required to accomplish the mission, sufficient ground and air transportation should be introduced into the interdiction area. This will help prevent the interdiction force from being trapped and defeated in detail.

13. Elements of the interdiction force may be moved within the area by means of VTOL/STOL aircraft. The number of aircraft introduced into the interdiction area is dependent on the distance from friendly areas and the ability of the aircraft to survive and operate within enemy territory.

14. If a reserve is not taken into the interdiction area, an on-call reserve may be moved into the interdiction area from the departure area or unengaged elements of the interdiction force may be shifted within the interdiction area.

15. The duration of the operation and the amount of support required in food and ammunition will dictate the necessity for establishing clandestine bases. These should be avoided whenever possible in order not to restrict mobility.

MOVEMENT RESTRICTIONS

16. The interdiction force must not move outside of the interdiction area without specific authority. The restriction on movement is necessary to reduce co-ordination problems and to allow the delivery of fire of all types into enemy locations outside the interdiction area.

CO-ORDINATION AND CONTROL

17. When an interdiction force is operating in an area, increased emphasis must be placed on co-ordination and control of the following:

- a. **Nuclear Fire.** Maximum control of fire is required to avoid casualties among the dispersed and moving elements of the interdiction force. Certain areas, where targets for nuclear weapons either exist or probably will exist during the course of the operation, are designated as no entry areas. These areas are reserved for attack by nuclear weapons and their location is areas by any portion of the interdiction force is allowed only with the specific approval of a designated control HQ.
- b. **Communications.** The dispersion of the interdiction force over a large area complicates communication problems and requires the augmentation of existing radio facilities by relay stations, either ground or airborne as well as measures to preclude enemy DF, such as frequency hopping and burst transmitters.
- c. **Supply.** The interdiction force should enter the area with its accompanying supplies. Additional supplies are delivered on an on-call basis to selected locations by air-landing, LAPES or airdropping resupply methods. Since operations are based on maintaining a minimum level of supply there is a greater need to use captured enemy stocks and to live off the land.

EXTRICATION OF THE FORCE

18. On completion of the mission, and having obtained approval from the designated control HQ, the force may concentrate to assist the advance of friendly ground forces, or it may be extricated. Extrication of the troops may be achieved by one of the following methods:

- a. evacuation by air or sea;
- b. fighting their way out as a concentrated force;
- c. withdrawal by small groups;
- d. remaining hidden in the area to await the approach of friendly forces; or
- e. joining with local para-military forces.

SECTION 6

PATHFINDER OPERATIONS

GENERAL

1. Pathfinders are inserted into the area by land, sea or air, days or hours before, or just preceding the parachute assault by the main force. If inserted by parachute, they may employ stand-off parachuting performance canopies to achieve aircraft separation from the target, greatly reducing the risk of detection. When an airborne operation is being considered, pathfinders may be used in order to gather intelligence. If the enemy is weak or vulnerable, the pathfinders may be ordered to deal with the enemy. If it is decided to conduct an airborne operation, the pathfinders may continue to provide intelligence. They may also assist in the airborne assault, but it is more likely that separate pathfinders will be deployed. Their primary responsibility is to reconnoitre, secure and control the primary and alternate DZs. They may also be tasked to reconnoitre:

- a. an LZ for fixed or rotary wing aircraft;
- b. a resupply DZ or EZ;
- c. a beach head for an amphibious operation; and
- d. routes across small water and mountainous obstacles.

TASKS AND ORGANIZATION

2. During the parachute assault phase, an airborne operation is particularly vulnerable until the force is concentrated at sub-unit RVs on the DZ. In order to achieve a rapid concentration and to gain surprise, the pathfinder group will be responsible for the following:

- a. reconnaissance to confirm the suitability of the primary and alternate DZs;
- b. the security of the DZ until the main force is concentrated at its RVs;
- c. electronic/visual marking of the DZ;
- d. local reconnaissance and the marking of routes to objective areas;
- e. the establishment and maintenance of communications with the mounting base in order to provide the airborne force commander with up-to-date tactical and weather information;
- f. FOO/FAC capability to direct close air/artillery support immediately preceding, during and following the airborne assault;
- g. establishment and control of RV's;

- h. briefing of commanders on the latest situation as they arrive at their RVs;
- j. guiding the assault force to objectives; and
- k. subsequent patrol tasks once the DZ is handed over to the force commander.

3. **Organization.** A pathfinder group is based upon the structure of a unit or force reconnoissance size of the group depends on the commander's estimate of what resources are required to carry out the tasks listed at paragraph one. The group will normally consist of the following:

- a. a pathfinder HQ consisting of:
 - (1) a commander,
 - (2) group/platoon warrant officer,
 - (3) radio rear link detachment,
 - (4) FOO/FAC party,
 - (5) medical assistant, and
 - (6) engineer recce party;
- b. a section to provide security of the DZ;
- c. a section to establish and control the RVs; and
- d. a DZ controller's party to establish the DZ markings and control the parachute drop.

METHOD OF OPERATIONS

4. Pathfinders may be inserted well in advance of the main assault force and then move by foot to their respective DZs. If this advance delivery would compromise security, pathfinders could be deployed a matter of minutes before in the lead aircraft. If a commander decides to use this approach, it must be realized that the pathfinders would not be able to conduct prior recce of the DZ, recce objective areas, or provide the latest tactical/weather information.

5. **Situation A.** In this case, the pathfinders are inserted into the area approximately 24 hours before P hour. A general sequence of events for a typical operation may be as follows:

- a. The pathfinders move from their landing area or through the FEBA to the DZ and establish a patrol base.
- b. They reconnoitre the DZ and the surrounding terrain that dominates it and the approach route(s) for the aircraft.
- c. Using a codeword, the pathfinders would send a quick sitrep to the airborne force commander, confirming the suitability of the DZ and informing the commander of the tactical situation in the area.
- d. The pathfinders deploy OPs to cover likely enemy routes to the DZ, and to observe the DZ to ensure it remains secure.
- e. Reconnaissance detachments reconnoitre routes from the RVs to the objectives.
- f. At the last possible moment, the pathfinders, using marker panels by day or fuzees by night, layout the DZ code identification letter eg A at the impact point, and mark/man the RVs to control the drop.
- g. Pathfinders control the drop and air/artillery in support of the operation.
- h. The pathfinders' commander and the RV guides brief their respective commanders on the latest tactical situation and then proceed with subsequent tasks.

6. **Situation B.** In this case the pathfinders are inserted onto the landing area in the lead aircraft minutes ahead of the assault. They would only have time to accomplish the following actions:

- a. move directly to predesignated positions as follows -
 - (1) rapidly establish the DZ code identification letter,
 - (2) man OPs close to the DZ, and
 - (3) mark the RVs and act as guides;
- b. control the drop and air/artillery in support of the operation; and
- c. hand over to the appropriate commanders at their RVs and proceed with subsequent tasks.

CHAPTER 4
BATTLE PROCEDURE
SECTION 1
GENERAL

DEFINITION

1. Battle procedure is the whole process by which a commander makes a reconnaissance and a plan, gives the orders, and deploys the troops for battle. The three basic steps in the process are:
 - a. reconnaissance and planning,
 - b. the issue of orders, and
 - c. deployment.

JOINT PLANNING

2. An airborne operation must be planned jointly by the airborne force commander, and the airlift force commander. The requirements for land, air or naval fire and logistical support will be identified during the joint planning. Support will then be requested from the appropriate component commanders or from the JTFC.

BASIC TACTICAL PLANNING CONSIDERATIONS

3. Ground tactics of an airborne force are similar to those of infantry, but more specifically to the characteristics and limitations of light infantry. Planning considerations for the employment of an airborne force are as follows:
 - a. Airborne forces should not be assigned missions that can be performed as economically or as expeditiously by other combat forces.
 - b. An airborne force relies on artillery, air, and naval fire support from outside the objective area as organic supporting fire is normally limited within the objective area.
 - c. Operations rely on both strategic surprise to catch the enemy defenders unprepared, as well as tactical surprise to reduce their vulnerability during landing and reorganizing on the DZ.

- d. Airborne operations can be conducted in daylight or during darkness. Establishing a recognizable pattern in the timing of assaults should be avoided. The principal advantage of landing at night is that darkness aids in gaining tactical surprise and reduces the effectiveness of enemy fire. Disadvantages are -
 - (1) the difficulties of locating DZs,
 - (2) an increase in the time required to assemble troops and equipment,
 - (3) a decrease in effectiveness of supporting fire, and
 - (4) an increased opportunity for enemy movement of armour toward the airhead under cover of darkness;
 - e. In an airborne operation, the initial assault normally will be made by parachute elements. Air-transported units may then be air-landed onto protected landing areas to exploit the tactical advantage gained or to conduct other operations.
 - f. The airborne force is most vulnerable to enemy counter-attack during the period immediately after landing. Movement of strong enemy forces to the airhead area during this period must be prevented primarily by close air support or indirect fire.
 - g. Dependent upon the mission, enemy capabilities, forces available, weather, the terrain in the objective area, and the planned time until link-up, reinforcement, or withdrawal, the airborne force may assault in one of two ways. It may be dropped onto a single DZ with all combat elements or it may be deployed onto multiple DZs on missions independent of, or only partially dependent upon, the action of the remainder of the force -
 - (1) **Single DZ.** The selection of a single DZ facilitates control, coordination, and planning but may complicate the problem of achieving adequate dispersion. This method of employment may make it easier for the enemy to determine the location and size of the airborne force and to counter-attack, particularly with nuclear weapons.
 - (2) **Multiple DZ.** Multiple DZs complicate control, but have the advantage of providing more dispersion and making the acquisition of intelligence more difficult for the enemy. The possibility of defeat in detail is greater.
4. Guidelines for the selection and marking of DZs, LZs and Us are included as Figures 4-1-1 to 4-1-4.

WEATHER

5. Airborne operations are affected by weather to a greater degree than are most other operations. Surface wind velocity can cause unacceptable injury rates. For this reason, weather information must include data on surface and drop altitude wind velocities, visibility as affected by precipitation, fog, cloud cover and ceilings, and nuclear and conventional preparatory fire effects in the objective area.

6. The effects of weather on airborne operations are analysed to determine the general impact on enemy capabilities and friendly courses of action. This general analysis will be a prime factor in planning the operation. For example, weather may:

- a. prevent preliminary air bombardment missions essential to preparing the objective area for the assault;

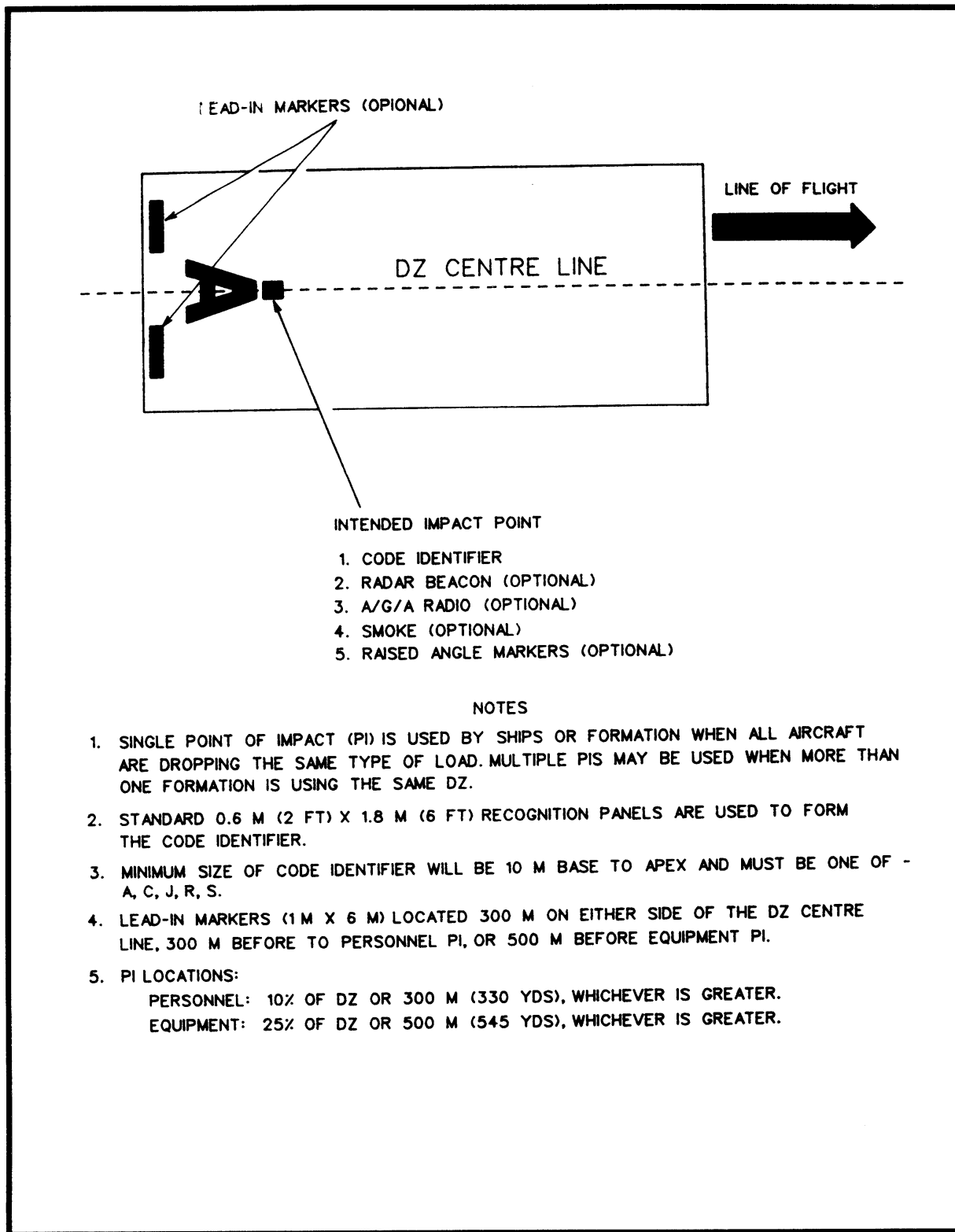


Figure 4 1-1 Minimum Drop Zone Markings (Day Operations)

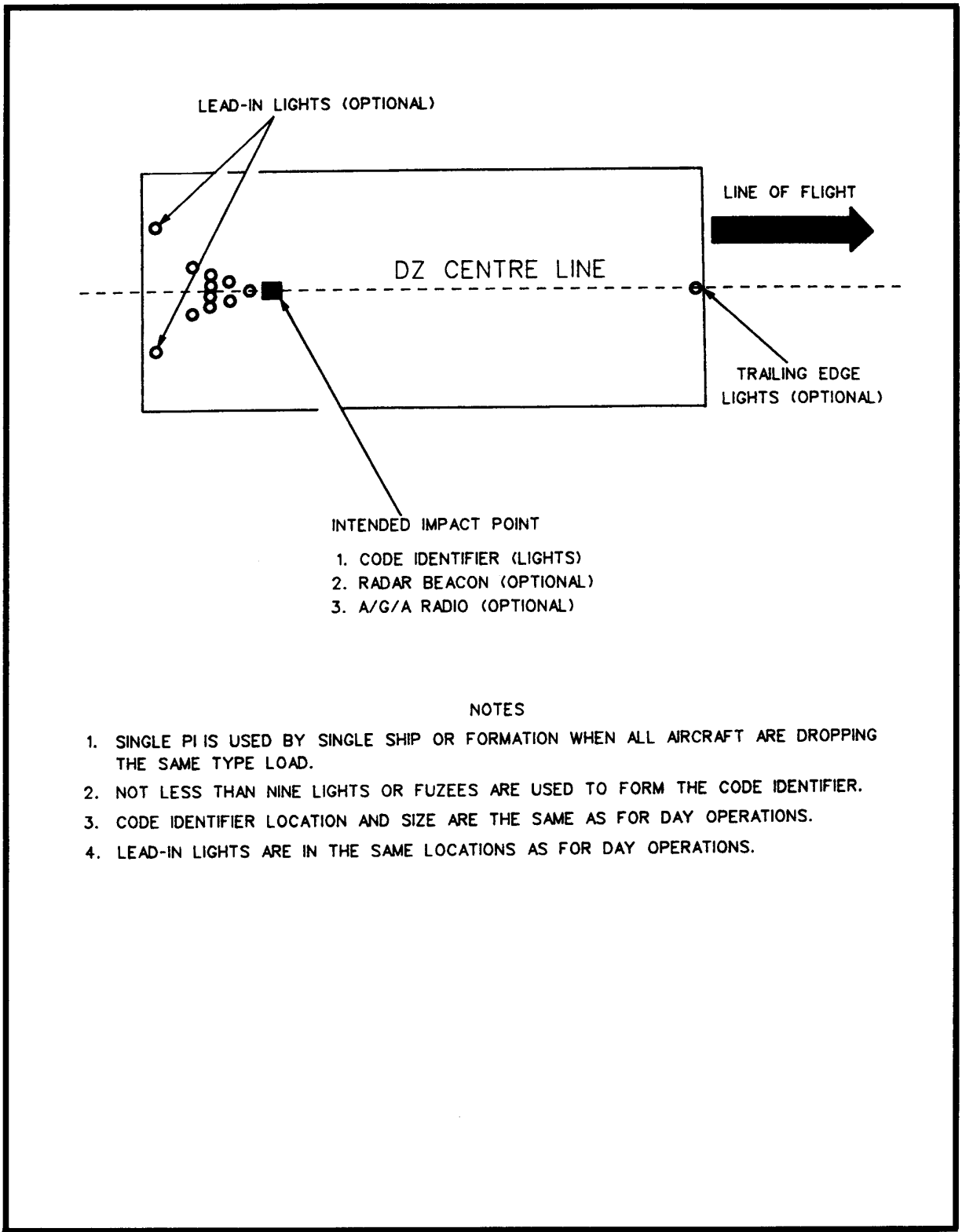


Figure 4-1-2 Minimum Drop Zone Markings (Night Operations)

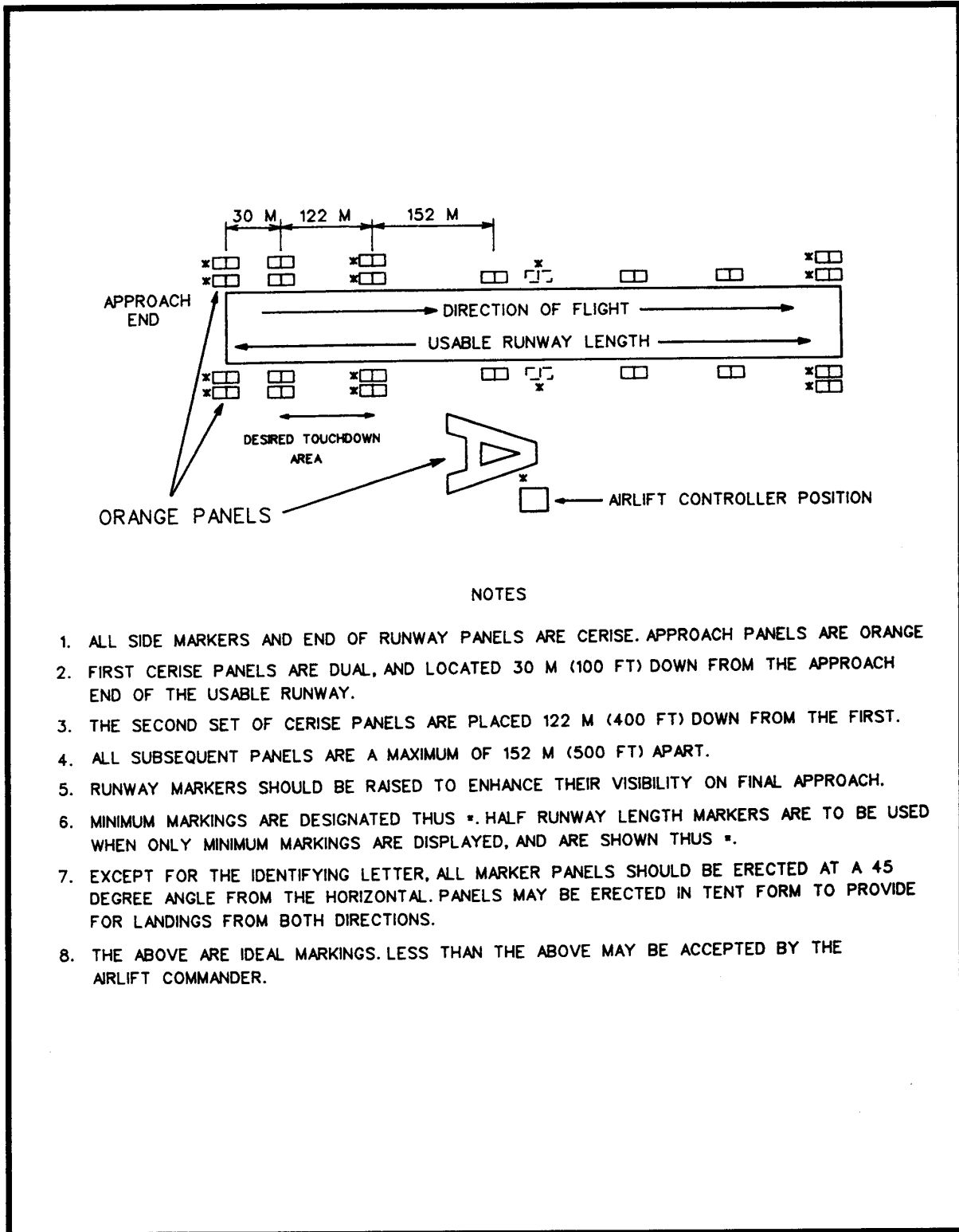


Figure 4-1-3 Landing Strip Marking (Day)

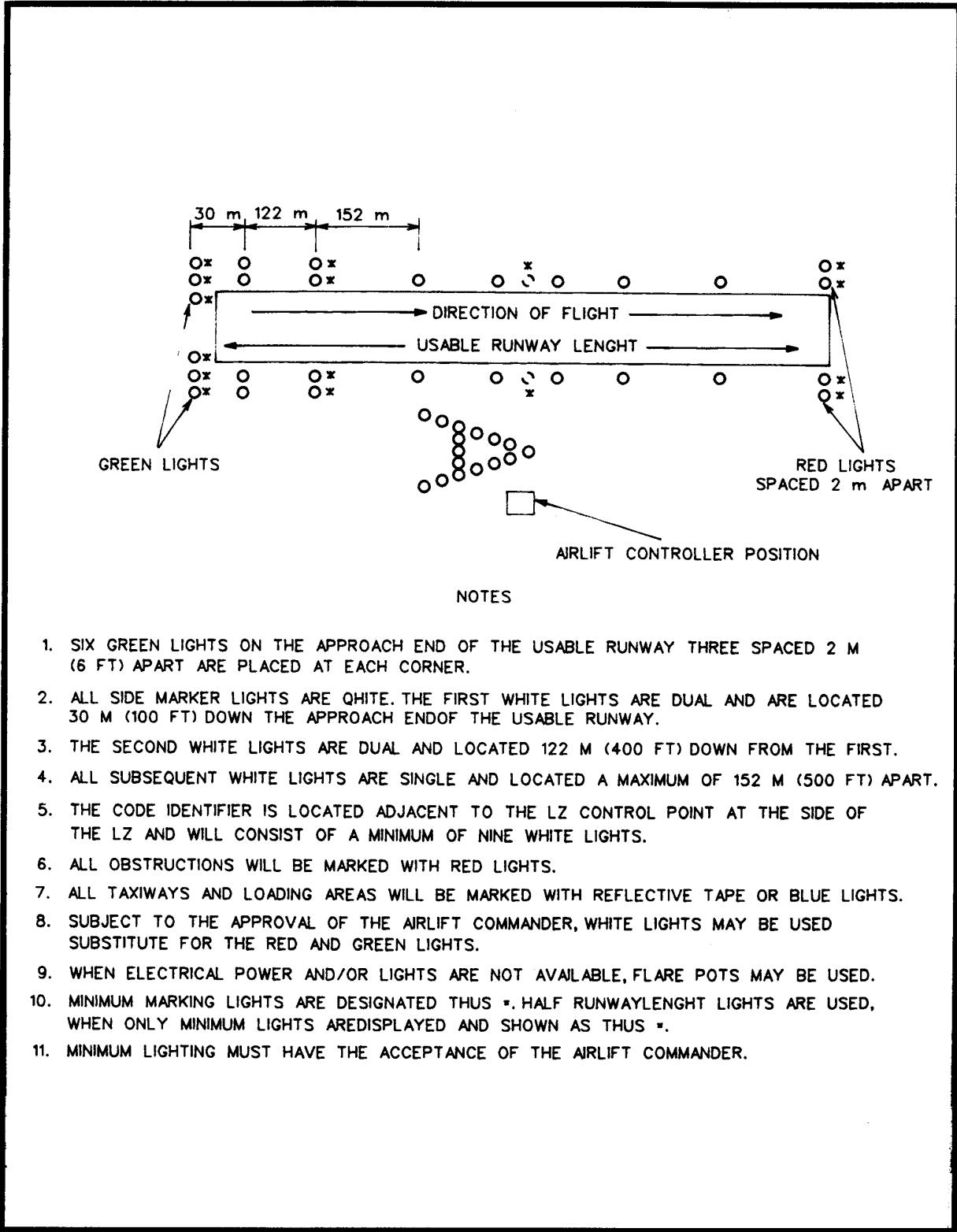


Figure 4-1-4 Landing Strip Markings (Night)

- b. curtail training for the operation;
- c. require provision of special types and unusual quantities of clothing, lubricants, food, and other materiel;
- d. necessitate postponement or cancellation of the operation;
- e. delay take-off of aircraft or prevent flights from reaching the objective area;
- f. prevent accurate or mass delivery of units into the objective area;
- g. prevent or delay supply or reinforcement of units in the objective area;
- h. interfere with close air support;
- j. cause significant variations in the effects of friendly or enemy employment of nuclear weapons; and
- k. prevent or delay the repair, preparation, or construction of airfields or air-landing facilities.

7. Weather minimums describe the worst weather conditions which will allow full-scale participation by all forces. The airborne force commander specifies the maximum acceptable surface wind velocity in the objective area. Airlift and close air support force commanders specify the minimum ceiling and visibility which must prevail in the departure area, en route, and in the objective area. When weather conditions are less favourable than specified minimums, the operation may proceed regardless, or may be cancelled or postponed.

8. **Weather Decision.** The overall commander who has ordered the operation will make the final decision on go, postponement or cancellation of the operation based on recommendations of the airborne and airlift force commanders.

SECTION 2

RECONNAISSANCE AND PLANNING

RECONNAISSANCE

1. An airborne force commander should make an aerial reconnaissance of the objective area and the routes to it whenever conditions permit. If this is not possible, the reconnaissance should consist of a study of maps, terrain models, and air photographs of the objective area. The following items are of particular importance for pre-airborne assault reconnaissance:

- a. the nature of the DZs, including anti-airborne obstacles;
- b. likely assembly areas;
- c. enemy locations near the objective area, including the location of reserves and armoured units;
- d. avenues of approach that could be used by enemy forces to counter the airborne assault; and
- e. the nature of the objective and the location of terrain suitable for defending the objective.

2. Reconnaissance of the objective area must be continuous to provide current information throughout the planning phase, but should be controlled to prevent a premature disclosure of the selected DZs. Aerial reconnaissance should be planned early in the initial stage of the airborne operation and implemented as soon as feasible.

PLANNING SEQUENCE

3. **Warning.** The detailed joint planning of an airborne operation will be initiated by the receipt of a warning order issued through the proper chain of command. In addition to the normal information included in this type of order, the warning order must authorize direct liaison between the airborne unit and the airlift force that will support the operation. The airborne force and airlift commanders make joint initial studies and subsequently issue their initial instructions in the form of warning orders, containing the following information:

- a. general situation;
- b. probable mission;
- c. timings for the preparation phase of the operation as follows -
 - (1) stages of readiness,

- (2) the location and time for the issue of the operations order, and
- (3) the time of issue for the administrative order and air movement table;
- d. special instructions concerning the following -
 - (1) procurement of special equipment,
 - (2) training and rehearsals,
 - (3) the time of orders for movement to the marshalling area, and
 - (4) security and briefing instructions;
- e. grouping details (if known);
- f. any known information regarding resources allocated to the operation, ie number and type of aircraft and duration available;
- g. location of mounting and staging base and departure airfield (if known); and
- h. any other details known that will be of assistance to the airborne force commander to initiate the battle procedure and planning for the operation.

4. **Higher HQ Order or Directive.** The higher HQ will issue an operation order or instruction which will include the following information as applicable:

a. **Situation -**

- (1) Enemy forces must be covered in detail but may be issued as an Intelligence Annex to the order. Both ground and air strengths, and capabilities in the objective area and along the axis of air movement are vital. Details of the enemy's ability to reinforce the objective area, and the type of force anticipated should be detailed. In addition the following will be covered -
 - (a) terrain,
 - (b) meteorological data, and
 - (c) local inhabitants.
- (2) Friendly forces - general intentions in the area or theatre of operations.
- (3) Attachments and detachments - resources allocated and designation of command and control relationships for the joint task force (JTF).

b. **Mission** - Higher HQ states the task.

c. **Execution** -

- (1) The higher HQ gives a general outline of its plan including the roles assigned to the JTF and other forces under its command, operational control or in support.
- (2) Tasks are detailed to the JTF and other forces. From this sub-paragraph the JTF and subsequently the airborne force and airlift force, formulate their mission.
- (3) Co-ordinating instructions detail the following -
 - (a) timings for the start of the operation, the completion of each phase, and the completion of the entire operation,
 - (b) limit of exploitation for ground forces,
 - (c) route limitations,
 - (d) provisions for alteration, postponement or cancellation of the operation,
 - (e) availability of airfields as alternates,
 - (f) fire support available from other agencies including nuclear. The RFL for the operation must be specified,
 - (g) tactical air support including fire support, liaison and reconnaissance,
 - (h) air transport arrangements including details of the number of aircraft, type, and duration available,
 - (j) aviation arrangements for helicopter support may be included,
 - (k) co-ordination with other agencies or forces,
 - (m) instructions for link-up/extraction, and
 - (n) rehearsals if desirable.

d. **Service support -**

- (1) Higher HQ will designate the mounting, staging and support bases, and the mounting and departure airfields.
- (2) If the marshalling area has not been designated in the warning order it will be in this order or directive.
- (3) Higher HQ will also state its intentions regarding the following -
 - (a) handling of PWs,
 - (b) medical evacuation of casualties,
 - (c) provision of subsequent resupply including reinforcement,
 - (d) restrictions on the amount and type of supplies or equipment to be taken, and
 - (e) the allocation and source of nonorganic equipment required for this operation.

e. **Command and signals -**

- (1) Higher HQ details the chain of command for this operation and appoints or confirms the appointment of -
 - (a) the JTFC,
 - (b) the land and air component commanders,
 - (c) the airborne force commander, and
 - (d) the airlift force commander.
- (2) The security and briefing instructions are updated.
- (3) Signal and communications arrangements are detailed.
- (4) Recognition signals to be used on linkup are detailed.

NOTE

Airborne force/airlift force commanders may be designated later by the land and air component commanders.

5. **Estimate and Plans.** Based on information from reconnaissance and from higher HQ orders or instructions, the airborne force and airlift force commanders will conduct an estimate of the entire situation. Since every action must be aimed at accomplishing the mission, the following five interrelated plans are developed (The plans are developed in reverse order of their conduct.):

- a. **Ground Tactical Plan.** This plan, developed by the airborne force commander, determines the strength and composition of the forces required to accomplish assigned tasks and the logistics required.
- b. **Airborne Assault Plan.** Produced in concurrence with the ground tactical plan, this plan indicates the sequence and method of delivery, and the place of arrival of troops and materiel.
- c. **Air Movement Plan.** This plan, developed by the air planning staff, is produced in concurrence with the airborne assault plan.
- d. **Air Loading Plan.** Developed by the airborne force staff based upon the airborne assault plan and the air movement plan.
- e. **Mounting Plan.** This plan is developed jointly by the airborne force commander and the air planning staffs and is produced in concurrence with the air movement plan.

GROUND TACTICAL PLAN

6. This stage begins when the force lands on or near its objective. The assault group secures the DZ for subsequent airdrops or air landings, if this has not been done by pathfinders, and proceeds with its task.

7. Once the objective is secure, the force prepares for defence, link-up, re-deployment or extrication in accordance with the plan.

8. This plan, developed by the airborne force commander, covers the employment of the force once it is on the ground and includes both the initial action and subsequent activities, and will take into consideration the following:

- a. enemy strength, capabilities and probable intentions in the objective area;
- b. resources required to successfully complete the mission at the objective such as
 - (1) own troops required,
 - (2) additional troops and equipment required from other agencies,

- (3) fire support required from artillery, tactical air, tactical aviation, and naval gun fire support,
 - (4) accompanying supplies and equipment,
 - (5) subsequent requirements to resupply the force, and
 - (6) communications requirements;
- c. from the above considerations the airborne force commander is able to determine the following for inclusion in the plan -
- (1) the strength, composition and organization of the force, and
 - (2) the amount of training or rehearsals required;
- d. from a time and space study the airborne force commander will determine the probable length of the ground phase of the operation and the best time to initiate the airborne assault;
- e. casualty estimates will be determined in order to plan casualty replacement; and
- f. the airborne force commander will identify the degree of co-ordination with other forces required.

AIRBORNE ASSAULT PLAN

9. This plan evolves from the ground tactical plan and co-ordinates the airdrop onto the DZs in proper sequence to execute the ground tactical plan. The plan is the product of joint planning between the airborne force and airlift force commanders.

10. DZs may be secured early by infiltrating or airdropping pathfinder groups into the objective area in advance of the assault group. The assault group airdrops onto, or as close as possible to, its objective, supported by heavy suppressive fire. The use of unit DZs permits rapid assembly into the tactical deployment required by the plan. The reserve and support group will be landed as necessary and if an air landing is to follow the airdrop, a time interval is needed to clear the landing area of enemy forces and remove parachutes, obstacles, and heavy equipment or supply loads.

11. The airborne assault plan will take into consideration the following factors and requirements:

- a. enemy, especially air defence capabilities;
- b. terrain and weather data;

- c. the mission;
- d. the strength, composition and organization of the airborne assault force;
- e. the order of delivery for elements of the force;
- f. when each element is required and where; hence the number and locations of DZs and probable length and duration of the airborne assault phase including the best time schedule for the drop; and
- g. pathfinder and fire support requirements for this phase.

AIR MOVEMENT PLAN

12. This plan is based on the requirements of the two previous plans. It will be developed by the airlift force commander in close co-operation with the airborne force commander, taking into consideration the following factors:

- a. enemy air defence capabilities along the flight plan route(s);
- b. tactical air reconnaissance and fire support requirements;
- c. meteorological information;
- d. the mission;
- e. aircraft resources, availability and requirement;
- f. flight planning information required, such as the time of flight, flight path and approaches to DZs;
- g. evacuation procedures for personnel of downed aircraft;
- h. navigational aids and special equipment requirements;
- j. air movement phase initiation time;
- k. inter-forces co-ordination requirements;
- m. training or rehearsals; and
- n. communications arrangements, including electronic silence requirements.

AIR LOADING PLAN

13. This plan's development is based upon the airborne force commander's requirements as identified in the airborne assault plan and the resources available as identified in the air staffs' air movement plan. This plan provides direction regarding:

- a. tactical cross-loading of key personnel and resources (air loading tables);
- b. priorities of loading including **red star passengers**;
- c. senior passenger in each aircraft to monitor airlift force and airborne force command nets;
- d. chalk composition, preparations and manifesting; and
- e. movement of troops and equipment from quarantine to the emplaning point.

MOUNTING PLAN

14. Again this plan, produced by the JTFC is the result of a joint estimate conducted by the airborne force and airlift force commanders. This plan will take into consideration the following factors:

- a. airfields, the availability and suitability of mounting and departure airfields;
- b. airfield resources' allocation to airborne elements and airlift elements;
- c. airhead traffic control arrangements;
- d. movement of troops and equipment from barracks to mounting base or direct to departure airfield;
- e. maintenance and supply requirements for the ground and air elements to the force;
- f. rigging responsibilities for preparation and installation of loads;
- g. rehearsals and training to be conducted;
- h. arrangements for briefings and orders;
- j. communication requirements;
- k. co-ordination and liaison between elements of the force and with outside agencies; and
- m. security.

SECTION 3

ISSUE OF ORDERS

BRIEFING

1. **General.** Airborne troops have no opportunity for ground reconnaissance before an operation and their dispersed arrival on the battlefield demands considerable initiative and resourcefulness from each soldier. All members are given a thorough briefing, so they can locate themselves immediately after landing by day or by night and so that each member knows the planned movements and aims of the sub-unit and unit. Not only will this enable members to join their own unit without delay, wherever they may land, but it also enables the unit COs to move off to their objectives from RVs without having to waste time on further orders.
2. **Security.** The dependence of the ground tactical plan on secrecy, in order to achieve surprise and gain the initial success vital to an operation, conflicts with the need for giving every member a detailed briefing before take-off. During planning, knowledge of the operation will be restricted to essential commanders and staff officers. The briefing of all ranks below the level of unit COs will not normally take place until units have moved into secure transit camps.
3. **Briefing Aids.** To provide a detailed briefing for all ranks in the short time available, every possible aid must be used. These include:
 - a. large-scale vertical and oblique air photographs showing the landing area, the objectives and the routes to them;
 - b. landscape models, ranging from elaborate and long-term use products for the high level planners, to sand tables made by unit intelligence sections;
 - c. films, originating from models, diagrams, and photographic reconnaissance sorties;
 - d. maps; and
 - e. satellite photographs.

SEQUENCE OF ORDERS

4. The plans devised during joint planning will be issued as executive orders by the respective commanders. A suggested sequence for orders and instructions is:
 - a. **Warning Order.** From the JTFC's initial order the airborne force and airlift force commanders will prepare and issue their own warning orders as discussed in Chapter 4 paragraph 12.

- b. **Operation Order.** Based on the JTFC's orders and the joint planning activities, the airborne force and airlift force commanders will issue their own operation orders (see Annex B for specimen headings). The airborne operation order will contain annexes to amplify some aspects of the operation. Suggested annexes are listed in the following appendices:
- (1) Appendix 1, Annex B - suggested annex to an Airborne Operation Order - Airborne Regiment Assault Operation Order.
 - (2) Appendix 2, Annex B suggested annex headings for an Air Movement Order.
- c. **Airborne Force Commander's Briefing.** This briefing will be given by the airborne force commander to the aircrew normally as part of the airlift force commanders briefing. A suggested format is given in Annex C.
- d. **Confirmatory Orders.** If the numbers and the situation allow a final gathering of the entire force in one area, then the JTFC should deliver the final confirmatory orders to every member of the force. This may be impossible at the force level but the airborne force and airlift force commanders, or their unit commanders, must make a special effort to hold a final mass briefing of their command. The advantage in terms of troop morale and inspiration far outweigh the minor administrative burden of such a course.

SECTION 4

TRAINING AND REHEARSALS

GENERAL

1. As soon as troops have consolidated, their duties and battle drills are similar to those of infantry. Every airborne soldier must remember that the aircraft and the parachute are simply a means of getting to the battlefield and that the primary aim in training is always to reach the highest standard of infantry skills.
2. The tactical air move and the airborne assault do, however, demand special training. This section describes some of the collective air training necessary for airborne troops and those parts of ground training which need special emphasis.

AIRBORNE TRAINING

3. An airborne force must be capable of launching an operation on short notice. Training should be progressive and designed to maximize readiness. Training at airborne unit level consists of:
 - a. individual training including parachute techniques, flight discipline and loading and unloading of aircraft;
 - b. unit training peculiar to airborne operations including unit loading of aircraft, techniques for mass delivery in assault landings, assembly after landing, familiarization with tactics suitable for expected conditions in the objective area, special measures for anti-armour defence, and special problems of administration and logistics; and
 - c. command and staff training including techniques of preparing airborne operation orders, annexes, and air movement forms; marshalling techniques and procedures; organization and functions of other participating forces; communications procedures and techniques; logistical procedures; employment of combined arms; conduct of tactical operations; and command post exercises.
4. Because of the nature of parachuting, a close study of morale is essential for every commander of airborne troops. The fact that a whole unit or formation jumps into action together helps to foster team spirit, and the elation which follows a successful descent contributes considerably to the fighting spirit of an assault unit. These advantages are operative only when the unit has good discipline and sound training. Poor discipline in the air, ignorance of aircraft drills and parachuting technique will lead to confusion at the departure airfield, slipshod equipment checks, and bad exits. The result may be DZ casualties, slow consolidation, and loss of confidence.

INDIVIDUAL GROUND TRAINING

5. **Initiative and Endurance.** The initiative and resourcefulness demanded of airborne troops in the period between landing and reaching the assembly area have already been mentioned. The nature of airborne operations means that troops, to advance and attack, must rely on their own fire power and ability to move; and that in defence they will often be surrounded. Self-reliance, teamwork, and the mental and physical power to endure must be developed by training. This endurance can be achieved by individual initiative exercises, by section and platoon exercises of similar type, and by constant repetition of endurance exercises aiming for the development of both mental and physical strength.

6. **Alertness and Suspicion.** Airborne troops find themselves suddenly transported from semi-peacetime conditions, well behind the fighting area, to the middle of enemy territory where not only the enemy's troops are active, but the whole population may be hostile. Alertness and suspicion are therefore important attributes of the airborne soldier and must be developed by training exercises involving reconnaissance, long range patrolling, and escape and evasion.

7. **Map and Air Photo Reading.** The fact that reconnaissance before an airborne operation has to be done from maps and air photographs, makes it important for every officer and NCM to have a good knowledge of photo reading and for all ranks to be well trained in map reading. These skills are critical in enabling the paratrooper to quickly reorganize after the drop, when all paratroopers must check their own location and make their own way to the assembly area. Orientation must be taught in all its forms, by air-photo, map, compass, sun, stars, and observation.

8. **DZ and RV Assembly Drills.** DZ and RV assembly drills must be practised until all ranks know them instinctively. The density of dropping, of both members and heavy equipment, makes good DZ drills essential if confusion on the DZ is to be avoided.

9. **Weapons Training.** Airborne troops can carry comparatively little ammunition into the objective area. Good marksmanship and fire discipline are necessary to avoid waste. The absence of any great weight of supporting artillery fire makes weapons training especially important. In the units, adequate reserves of anti-armour specialists should be trained, and all ranks should be trained in the use of enemy weapons.

10. **First Aid.** Self-aid and first aid refresher training should be conducted prior to an airborne operation.

COLLECTIVE TRAINING OF AIRBORNE TROOPS

11. **Purpose.** The purpose of collective training is to practise every phase of the airborne operation. Command post exercises, field exercises, and tests are conducted, as far as is practicable, during each training phase to ascertain progress and ensure standardization of procedures of the airborne and airlift forces. Day and night exercises must be conducted.

REHEARSALS

12. Prior to specific airborne operations, every effort should be made to conduct rehearsals which will parallel as closely as possible the conditions expected in the actual operation. The requirement for rapid planning, security, and speed in execution may prohibit rehearsals.

COLLECTIVE AIR TRAINING

13. **Collective Air Training.** Airlift force training for airborne operations should include formation flying; execution of mass drops, heavy equipment drops, LAPES and assault aircraft landings; combat air extraction procedures; qualification of necessary specialists; command and staff techniques; logistical procedures; individual flight techniques; air exercises; and rehearsals.

14. **Collective Ground Training.** Collective ground training of airborne troops follows normal principles, but with special emphasis on tank-hunting, all round protection in defence and night operations. The lack of armour and shortage of heavy weapons and ammunition make night the ally of airborne troops. They should be so trained that they can move and fight as easily by night as by day and are capable of carrying out any operation by night, from the small reconnaissance patrol up to the deliberate attack.

CHAPTER 5

ADMINISTRATION AND LOGISTICS

SECTION 1

INTRODUCTION

GENERAL

1. The aim of this chapter is to describe the administrative and logistic support required to enable an airborne force to execute its role.
2. Administrative support is the assistance given to troops, by staff planning, personnel management, internal management of units, finance, and civil affairs. Logistic support refers to transportation, supply, and maintenance matters.

FUNDAMENTALS OF ADMINISTRATION

3. Like the principles of war, these fundamentals have evolved through experience. They are not rigid rules for the planning and conduct of unit administration but rather they are guides for the preparation of a sound administrative plan. The fundamentals of administration are discussed fully in B-GL-304-002/FP-001, Unit Administration, but they bear repeating here:
 - a. foresight,
 - b. economy,
 - c. flexibility,
 - d. simplicity, and
 - e. co-operation.
4. **Airborne Applications.** Although all of the fundamentals are important two take on added importance.
 - a. **Foresight.** Due to the many variables and unknowns a tactical plan for an airborne operation must be extremely flexible. An operation which originally had only a very limited aim may experience unexpected success and develop into a far bigger operation requiring supplies of a different nature to those originally planned for. The administrative planners must appreciate this fact and attempt to foresee the possible variations in order that success is not jeopardized by the lack of logistic backup.

- b. **Economy.** Initial resupply for parachute operations is by air and is subject to interruption by both weather and enemy air activity. Shortage of supplies of a certain nature will undoubtedly occur; therefore, all ranks must realize the necessity for stringent economy measures and practice them constantly.

FACTORS

5. Commanders at all levels must ensure that their administrative arrangements are capable of supporting their tactical plans. Some important considerations in administrative planning for parachute operations are -

- a. the speed of movement and possibility of lengthy lines of communication;
- b. the possibility of interference with air supply, by both enemy action and weather, and the limitations of the range and load carrying capability of aircraft;
- c. the requirement for tactical loading and subsequent loss of pay load;
- d. the requirement for a flexible plan which can adapt to rapid changes in the tactical situation within the objective area;
- e. the necessity of making imaginative use of all possible space and methods for introducing all nature of supplies into the airhead or objective area; and
- f. the limited facilities available to the airborne forces to move supplies on the ground.

SECTION 2

THE ADMINISTRATIVE AND LOGISTICS SYSTEM

ADMINISTRATIVE AREA AND BASES

1. The locations from which the organic or attached administrative component of the force operates are of two types:
 - a. **The Force Administrative Area.** This is the geographical area from which the force's B echelon and attached administrative supporting elements operate. In the conduct of an airborne operation it will usually be based on an austere landing strip or resupply DZ within the perimeter of an airhead.
 - b. **Base.** A base is an administrative area of a permanent or semi-permanent nature which is normally located near an airfield/seaport. Ships which perform a base-like function for a theatre may also form part of a base. The main administrative centre of a theatre is known as a theatre base.

LOGISTICS

2. **The Logistics System.** In some instances the force will be partly dependent upon the logistic system of a larger or an international force with which it is operating. However, some use of the Canadian system will be required to supply items peculiar to the CF, to manage an evacuation and replacement system and to maintain liaison with the supporting HQ to ensure Canadian requirements are adequately satisfied.
3. **Resupply.** Resupply from the theatre base to forward airfields will be by medium or short range air transport. The movement of supplies from the forward airfield or to combat units may be by ground vehicles, aerial delivery (parachute, free drops, or LAPES), helicopters, or by any combination of these means. Refer to Figure 5-2-1.
4. An airborne force's first and second line support will normally require augmentation by third line resources in order to successfully mount, equip and logistically prepare for a large scale airborne operation. This capability will only be sufficient for isolated, commando-sized operations and to sustain the operation in the ground tactical phase.

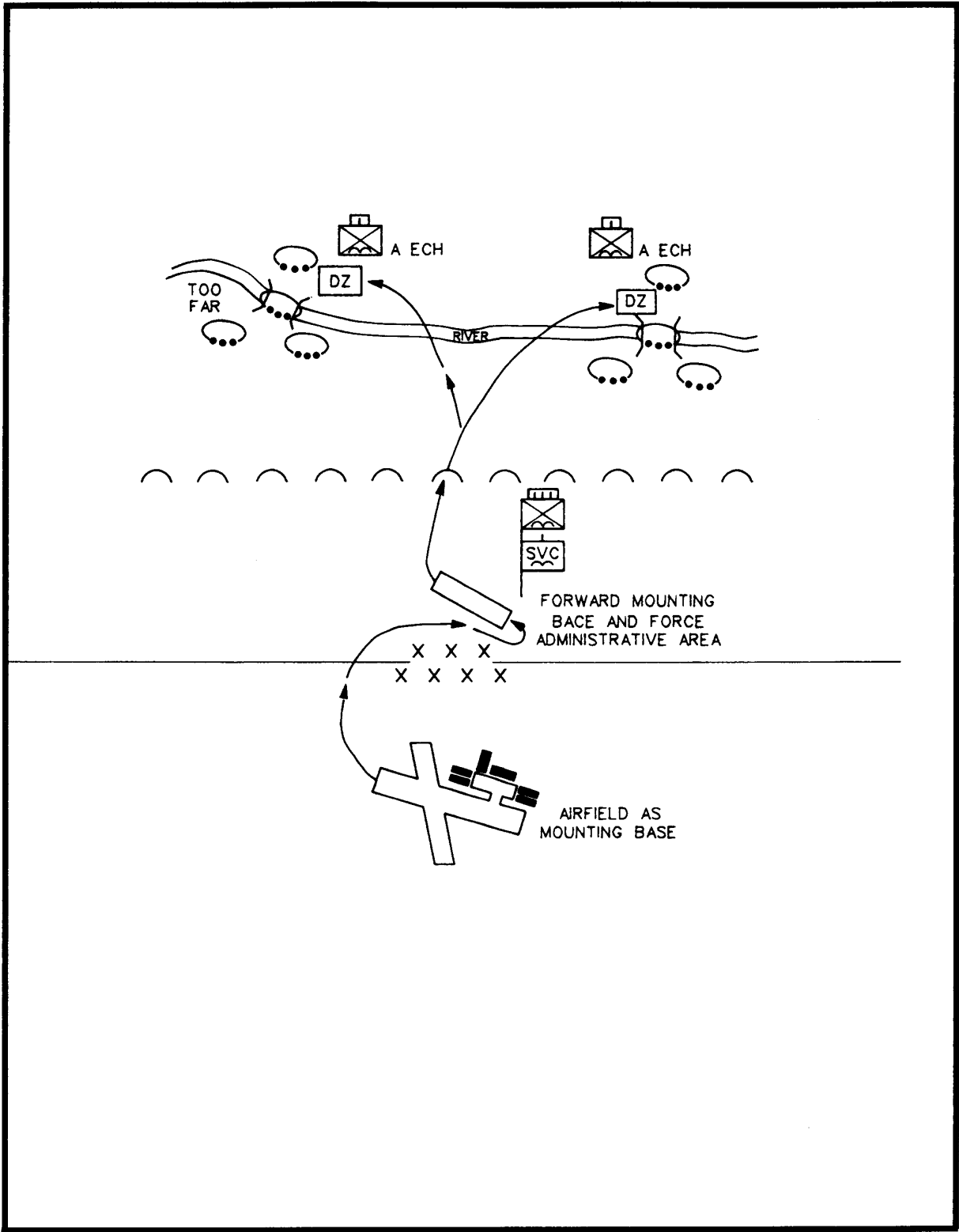


Figure 5-2-1 Aerial Resupply from Mounting Base to an Airborne Force

SECTION 3

ADMINISTRATIVE AND LOGISTICAL PLANNING OF PARACHUTE OPERATIONS

GENERAL

1. All aspects of administrative and logistic planning must be coordinated with, and designed to support, the ground tactical plan. The basis for planning is similar to other combat operations. Certain aspects of personnel and civil affairs considerations as well as supply, transport, maintenance and medical services require emphasis in airborne operations.

PERSONNEL AND CIVIL AFFAIRS

2. Personnel and civil affairs planning involves consideration of:

- a. unit strengths,
- b. replacements,
- c. PWs,
- d. graves registration service,
- e. morale and personnel services,
- f. public information,
- g. civil affairs, and
- h. currency.

3. **Unit Strengths.** Airborne operations should be launched with units at full strength or overstrength in personnel. Action should be taken during the preparatory period to eliminate any existing deficiencies.

4. **Replacements.** A pool of parachute-trained specialists to replace casualties should be maintained. The size of this pool should be based on estimated losses. The replacements should be received prior to the operation. This temporary overstrength permits early replacement of initial losses. They should be held at the departure airfield and should not participate in the initial parachute assault. Plans must provide for an allocation of aircraft for movement of replacements to the objective area. They should be air-landed in the objective area and only parachuted in an emergency. If the force continues to operate in the objective area and suffers casualties beyond replacement pool strengths, units will be reinforced with non-parachutists from the theatre resources. These personnel will be withdrawn from the force when they leave the battle area and the force will be brought up to strength with trained parachutists.

5. **Prisoners of War.** Policy on disposition of PWs will be made by higher HQ based on the tactical situation, intelligence requirements and evacuation resources. They may be evacuated by air from collecting points within the airhead. Guards must be provided on evacuation by supporting agencies. Walking wounded could be used as extra guards.
6. **Graves Registration Service.** Decentralization of responsibility for graves registration is necessary in the initial stages of the operation. Battlefield search will be a force responsibility. The force commander will approve or designate temporary burial locations as required. The dead will not be evacuated by air unless such an action is ordered by higher HQ.
7. **Morale and Personnel Services.** Measures must be planned in advance for maintaining high morale during the mounting phase during which long periods of confinement can be expected. Provision must be made for mail services, chaplain services, amenities and entertainment.
8. **Public Information.** Provision must be made for continuous dissemination of unclassified information to the public. Although higher HQ will usually take on this responsibility, the force must be prepared to provide briefings, transportation, and accommodation (however primitive) to accredited correspondents. Transmission arrangements for correspondents' news copy and photographs to the next higher having field press censorship facilities may also be required.
9. **Civil Affairs.** Sudden and unexpected airborne operations may cause panic among the civil population in areas that previously were far removed from any fighting. The major problems, especially in enemy territory, are likely to be the control of refugees and the choice of suitable local inhabitants who can best maintain local administration in our interest. For this purpose, use should be made of field security personnel and, when the situation permits, of the civil affairs (or military government) staffs attached from higher formations. These officers may have to be parachutists.
10. **Currency.** It may be advisable for a proportion of the assault force to be provided with the local currency so that requirements can be purchased locally and helpful inhabitants rewarded. The extent of this issue will depend on the type of operation and the anticipated local resources. Local currency may also be useful for escape and evasion after capture or wide separation. Strict security measures are required when issuing local currency for the objective area during the mounting of an airborne operation.

LOGISTICS PLANNING

11. **General.** Logistic planning must be made jointly between the airborne and airlift force staffs and should be concurrent with tactical planning. For any airborne operation to be successful, logistics planning must commence at the embryonic stages. One of the most critical phases is the mounting phase. Proper planning during this phase will determine the later success and timeliness of the operation. FMOP 510, Joint Airlift Operations, contains useful planning considerations for the mounting phase.

12. **Planning Considerations.** Considerations that affect logistical planning include:
- a. number and location of marshalling/transit camps and composition of forces to be marshalled therein;
 - b. aircraft loading characteristics and allocation;
 - c. materiel handling equipment available;
 - d. proximity to lines of communication, available transportation and distance from supply points;
 - e. nature and amount of accompanying supplies and equipment and requirements for follow-up supplies, to include the transition to routine supply and the build-up to planned stock levels;
 - f. initial patient evacuation policy from airhead;
 - g. airfields and air landing facilities available in the departure area, and in the objective area, to include engineer effort and equipment requirements for necessary improvement or new construction where existing facilities are inadequate or insufficient;
 - h. supplies, equipment, personnel, and materials required in the objective area; and
 - j. long-range weather forecasts and the effect on resupply operations must be taken into account in determining the initial provisioning of the force.

13. **Supply.** The quantity and type of supplies and equipment carried by airborne forces are dictated by the initial combat requirements. They are influenced by the handling capability of the airborne units in the objective area, availability and carrying capacity of tactical airlift aircraft, projected date of link-up or withdrawal, anticipated weather, and enemy capabilities. Unused cargo space in the follow-up echelon normally will be used to carry supplies for forces already in the objective area.

14. **Phases of Supply.** Phases of supply in airborne operations are as follows:

- a. **Accompanying.** Accompanying supplies are those supplies taken into the airhead by units at their time of entry. Accompanying supplies are issued to units prior to marshalling to allow their early preparation for air movement and delivery in the assault. Each unit receives and prepares its own accompanying supplies. Units in both the assault and follow-up echelons will carry accompanying supplies into the airhead. Unit prescribed loads accompanying the assault units are established by the airborne force commander. Loads are delivered into the airhead carried by individuals, in door bundles, on vehicles, and in heavy drop or air-landed loads. The quantity of accompanying supplies should be sufficient to sustain operations for three days with the F echelon and four days with the A echelon.
- b. **Follow-Up.** Follow-up supplies are those supplies delivered after the initial airborne assault to resupply units until routine supply procedures can be instituted upon link-up or extraction. Delivery is made by air landing, LAPES, parachute, or free fall. There are two types of follow-up supply: planned and emergency.
 - (1) **Planned.** Planned follow-up supplies are brought into the objective area on either prescheduled deliveries or on demand. They are based upon estimated daily expenditures plus requirements to build-up reserve stocks. The type and quantity of supplies to be included in planned follow-up supply is determined by the airborne force. It is generally not desirable to schedule planned follow-up supplies for delivery on D-Day since units within the airhead are expected to be fully occupied with seizing objectives, establishing the airhead, and recovering accompanying supplies.
 - (2) **Emergency.** Emergency follow-up supplies are held in readiness in the departure area for immediate delivery to units on a specific request basis. These emergency follow-up supplies consist of additional quantities of those supplies included in planned follow-up supply, essential major items of equipment, and supplies which are not consumed at a predictable rate. The airborne force determines the quantities and types of supplies to be included in the emergency supply. The requirement is given to the supporting agency which, in co-ordination with the airlift force, is responsible for assembling, maintaining, and loading the supplies aboard aircraft. Depending on the situation, emergency supplies may be held by package loads, such as 105 mm artillery ammunition, or held in bulk, pending emergency requests for specific types and amounts.

15. **Loading.** Cross loading should distribute supplies among aircraft in such a manner that equipment and supplies essential to the initiation of combat are readily accessible to units on landing, and so that one type of item of supply is not lost on the abort or loss of one aircraft. Particularly critical equipment should be duplicated to safeguard against loss or damage.

16. **Delivery of Supplies.** Prior to the availability of improved air-landing facilities at the airhead, supplies are delivered to units by airdrop, LAPES, or air landing. Parachute delivery of supplies will be pre-planned or take place on request. Early operation of LZs must have high priority to ensure logistical support of the force. First priority in the use of available airlift is given to the need of the force in the objective area, the second consideration is the effective and efficient utilization of available airlift.

17. **Captured Supplies and Salvage.** Within the limitations prescribed by technical services and technical intelligence requirements, full use is made of captured or abandoned enemy materiel and supplies. Captured materiel requiring evacuation by air is designated, processed, and prepared for air movement in accordance with instructions from higher HQ. Logistical considerations require recovery of salvageable equipment, especially parachutes and air delivery containers. In short duration operations, damaged materiel is evacuated only when airlift is available that would otherwise be returning to the departure area without a full payload.

18. **Repair and Maintenance.** To minimize requirements in the objective area, intensive maintenance must be performed prior to departure. Direction for repair and recovery of battle-damaged vehicles, weapons and ancillary equipment, as well as scales of repair parts will be given, depending on the duration and scope of the operation. Equipment-backloading will be dependent upon the availability of aircraft and the expendability of the equipment.

19. **Water.** Filled water containers should be carried both for use en route and for consumption in the objective area. The location of possible water supply points must be predetermined and engineer water purification personnel should be made available in the objective area as early as practicable. Water resupply may be effected in the same manner as any other combat supply.

20. **Transport.** Provision of transport will be essential in the mounting phase of the operation. Consideration of distances from resupply DZ's to F echelons will dictate the requirement for organic transport on the operation.

SECTION 4

SUPPLY BY AIR

GENERAL

1. Resupply by air will involve several agencies working in close cooperation in order to effectively support the ground forces in a timely fashion. FMOP 510, Joint Airlift Operations, details the duties and responsibilities of the air component key personnel as well as guidelines for conduct of airborne operations and tactical airlift. The airborne force components intimately involved will normally consist of the emplaning staff, and the force's service support unit which will include an airborne tactical air movements section, and a para rigger section.
2. The airborne tactical air movements section will have the following responsibilities:
 - a. prepare palletized and unpalletized cargo for external carriage by rotary wing aircraft;
 - b. prepare all cargo and equipment for low velocity air drop or LAPES delivery;
 - c. provide the necessary instructions in load preparation and procedures to user units; and
 - d. accounting, storing, and limited maintenance of all air drop equipment and hardware.
3. The service support unit in conjunction with the A echelon will be responsible for the following:
 - a. selection, siting, and marking of cargo DZs or LZs;
 - b. control and organization of DZ parties;
 - c. when required and practicable, the clearance of DZs when the zones are being established as delivery points;
 - d. field-packing cargo parachutes for subsequent re-use.
4. The service support unit, with the B echelon and augmentation from theatre resources, will be responsible for the assembly, preparation and delivery of loads to the air component in order to meet the needs of the ground forces.

5. The airborne forces' emplaning staff will be responsible for liaison with the air component during resupply operations.
6. The para rigger section will be responsible for the storing, accounting, and maintenance of all cargo and personnel para stores. It will also ensure that sufficient quantities of parachutes are available to conduct and support the operation.

SECTION 5

MEDICAL SUPPORT AND AEROMEDICAL EVACUATION

GENERAL

1. Medical considerations are of paramount importance in the conduct of parachute operations. Airborne units and their personnel can be rendered ineffective by:
 - a. wounds;
 - b. disease or injury in the operations area;
 - c. lack of, or unenforced, medevac policy; and
 - d. casualties due to climate and temperature,
2. Medical plans and preparations in support of the mission are necessary if failure is to be prevented. Adequate medical support of an airborne operation requires that the medical staff have full knowledge of current intelligence and operational plans, and adequate time for medical planning and co-ordination.
3. Allowance must be made for probable losses of medical equipment and supplies during delivery into the objective area. Policy concerning provision of medical supplies to non-Canadian personnel should be stated.
4. Attention must be given to the medical problems that will arise not only in the airhead but in the marshalling areas and in the arrival airfields and hospitals to which patients will be evacuated from the airhead. Such relatively minor problems as the provision of litter-bearers and ramps for unloading patients from aircraft are simple to solve when planned for in advance; they may be serious limiting factors when their need appears suddenly and without warning during an airborne operation.

MEDICAL SUPPORT FOR AN AIRBORNE OPERATION

5. **Mounting Phase.** Force medical personnel accompanying the assault must prepare themselves and their equipment for combat while in the marshalling area. Planning must therefore provide for non-organic medical service for the airborne force. Such service should include dispensary care, evacuation to hospitals especially designated for the reception of sealed-in-personnel, preventive medicine, and medical supply support. Such relatively simple matters as the provision of safe drinking water and protection from the elements and from disease-bearing insects during this phase of the operation may spell the difference between success or failure in later phases. It is imperative that immunizations be completed, malaria prophylaxis initiated when necessary, and all personnel thoroughly indoctrinated on epidemiological problems peculiar to the areas of operation.

6. **Air Movement Phase.** Adequate preparation and the prior indoctrination of troops must be made to prevent disabilities that otherwise would result from fatigue, hunger, dehydration, changes in atmospheric pressure, noise, motion sickness, lack of acclimatization, or altitude sickness.

7. **Assault Phase.** Medical assistants parachute into the objective area with subunits to which they are attached, and render medical assistance to casualties as required. A field transfusion team, a holding team, a field surgical team, and an evacuation platoon must accompany the assaulting force to provide an immediate surgical capability until link-up or air evacuation by helicopter or airlanding is possible.

AEROMEDICAL EVACUATION

8. **The Evacuation Policy.** The evacuation policy should be flexible and planned to adjust to any contingency. It is established in advance but is modified as circumstances permit or require. Patients who can be returned to duty within a short period of time usually are not evacuated from the airhead; those who cannot be returned to duty within a predetermined time are evacuated as soon as possible. Adequate triage before evacuation retains effective personnel within the airhead and prevents unnecessary evacuation from the airhead.

9. **The Evacuation System.** Patients are evacuated from the objective area in airlift aircraft on return flights or by aeromedical evacuation sorties. The movement of patients out of the objective area normally takes precedence over all other evacuation requirements.

10. **Detailed Study Reference.** The instructions and criteria governing the procedure for aeromedical evacuation of personnel are published in B-GL-313-001/FP-001, Medical Services In Battle.

ANNEX A

SUGGESTED SUBJECT HEADINGS: REGIMENTAL STANDING OPERATING PROCEDURES

ORGANIZATION

1. **Allocation of Resources.** HQ, alternate HQ, and sub-unit organization for battle into echelons to include allocations of:
 - a. personnel,
 - b. vehicles,
 - c. weapons, and
 - d. vehicle loads.
2. **Normal Locations.** This will include the normal locations of supporting arms. Although these are detailed in warning orders their location prior to operations and regrouping should be standard.
3. **Duties.** The normal duties of key personnel are listed.
4. **Normal Composition of R and O Groups.** They may include those people who normally answer radio collective calls.

COMMUNICATIONS

5. **Normal Distribution.** This will include the radio nets, telephone stations, and SDS procedures:
 - a. codes and standard fixed call signs, and
 - b. drills to re-establish communications, both within the force and to higher HQ.

MOVEMENT

6. Includes:
 - a. **Administrative Moves.** This should include the following details -
 - (1) normal packets;
 - (2) speeds;

- (3) densities;
 - (4) road priorities for certain vehicles such as command vehicles, ambulances, etc;
 - (5) convoy flags;
 - (6) manning of start and release points; and
 - (7) route signing and traffic control.
- b. **Tactical Moves.** This should include the following detail -
- (1) speeds;
 - (2) procedures at halts;
 - (3) procedures for entering, occupying and leaving concentration areas, assembly areas, and attack positions; and
 - (4) procedures to be followed when vehicle breakdowns occur.
- c. **Composition of harbour and reconnaissance parties are given.**
- d. **Immediate readiness procedures and procedures for a quick move are included.**

PROTECTION

7. Includes:
- a. state of readiness,
 - b. challenging,
 - c. protection against aircraft and NBCW attack,
 - d. decontamination procedures
 - e. radiation monitoring drills,
 - f. nuclear warning system,
 - g. responsibilities,(to include duties of key personnel),
 - h. planning,

- j. documentation,
- k. security seal-off drills,
- m. loading and unloading drills (This will include responsibilities for exterior cargo rigging),
- n. personnel emplaning/deplaning drills,
- p. DZ/marketing and procedures,
- q. RV markings,
- r. assembly area drills,
- s. standard or type loads, and
- t. personnel and equipment scales.

REPORTS AND RETURNS

8. **Tactical and Administrative.** The various reports needed in operations including the times at which each report is submitted.

ADMINISTRATION

9. **Administrative/Resupply Procedures.** These should cover each echelon within the regiment and include:

- a. basic load and immediate reserve of ammunition, rations, and POL to be carried;
- b. air supply drills;
- c. procedure for the demand of ordnance stores;
- d. repair and recovery; and
- e. casualty treatment.

ANNEX B

SPECIMEN HEADINGS FOR AN AIRBORNE OPERATION ORDER

1. **Situation:**

- a. Topographical,
- b. Meteorological,
- c. Enemy forces,
- d. Friendly forces,
- e. Air support,
- f. Naval support, and
- g. Atts and Dets.

2. **Mission:**

- a. Gen outline -
 - (1) Phase 1 - Para Aslt,
 - (2) Phase 2 - Seize objectives A, B, C,
 - (3) Phase 3 - Establish security on airhead,
 - (4) Phase 4 - Prep for redeployment;
- b. Unit tasks and groupings;
- c. Pathfinder tasks and groupings;
- d. Arty;
- e. Engrs;
- f. Air;
- g. Co-ordinating Instructions -
 - (1) Timings -

- (a) W hr,
 - (b) Summary of P hrs,
 - (c) W hrs,
 - (d) Confirmatory orders,
 - (e) Unit RV plans to RHQ,
 - (f) Fire plans to RHQ,
 - (g) Deployment/mounting timings;
- (2) Fire plan;
 - (3) Mounting procedures;
 - (4) Airborne assault plan (IAW OpO and mounting plan);
 - (5) DZs (IAW OpO);
 - (6) DZ RV locations and markings (day/night) -

| RV | FeatureLocation | Markings |
|----|-----------------|----------|
|----|-----------------|----------|

- (a)
- (b)
- (c)
- (d)
- (7) Boundaries;
- (8) Routes;
- (9) LOD, axis;
- (10) Report lines, bomb lines, NFLs, FSCL, RFL;
- (11) Limits of exploitation;
- (12) Link up procedures;
- (13) Identification;

- (14) Rehearsals;
- (15) Lost communications procedures (see airborne OpO);
- (16) DZ clearance.

3. **Service Support:**

- a. Dress,
- b. (See Administrative order attached).

4. **Command and Signal:**

- a. Comd -
 - (1) Airborne force commander,
 - (2) Air commander,
 - (3) Alternate airborne force commander,
 - (4) RHQ forward and rear, during mounting phase,
 - (5) Ground commander until arrival of regimental commander;
- b. Locations -
 - (1) RHQ Forward Opens (time);
Closes (time);
 - (2) RHQ Rear Open (time);
Closes (time);
 - (3) RHQ Tac parachutes with;
 - (4) RHQ Main parachutes with (unit; Initial loc at (grid reference;
- c. SOIs. To be issued by (time);
- d. Codenames:

| Serial No | Codename | Meaning | Issued by |
|-----------|----------|-----------------------------|-----------------------|
| 1 | | | |
| 2 | | Airborne Assault Successful | Pathfinders and units |
| 3 | | DZ Secure | Pathfinders |
| 4 | | DZ Not Secure | Pathfinders |
| 5 | | In Location | All |
| 6 | | Airstrip Ready | Engrs |

e. Nicknames:

| Serial No | Nickname | Meaning |
|-----------|----------|-----------------------|
| 1 | | DZ |
| 2 | | DZ |
| 3 | | P Hour |
| 4-7 | | Geographical Features |

f. Passwords;

g. Map ready reference points.

APPENDIX 1, ANNEX B

**SPECIMEN HEADINGS FOR A PARACHUTE OPERATION ORDER
ANNEX
TO AN AIRBORNE OPERATION ORDER**

PARA OPO NO

Refs: A.
B.

Time Z:

1. **Situation.**
2. **Mission.**
3. **Executive.**
 - a. Schedule (repeated as necessary for succeeding lifts) -
 - (1) Date,
 - (2) Chalk No.,
 - (3) Aircraft,
 - (4) Unit,
 - (5) Load,
 - (6) Para type,
 - (7) ac take off,
 - (8) Drop altitude,
 - (9) DZ name,
 - (10) P hrs,
 - b. Altn to para;
 - c. Cargo;
 - d. Action on DZ;

- e. DZ -
 - (1) Map,
 - (2) Location of DZ centre (longitude/latitude),
 - (3) Coordinates of DZ extremities,
 - (4) Code letter identifier (pers and eqpt),
 - (5) Ac approach,
 - (6) DZ hazards,
 - (7) DZ dimensions,
 - (8) Elevation (ASL),
 - (9) DZ markings -
 - (a) Lead in panels (optional),
 - (b) Code letter identifier,
 - (c) Trailing edge (optional),
 - (d) Smoke;
 - (10) DZ Procedures -
 - (a) Electronic beacon,
 - (b) Contact of DZ controller and formation lead,
 - (c) Initiation of smoke,
 - (d) Indication of winds.

4. **Service Support.**

- a. Manifests,
- b. DZ controller,
- c. Medical,

- d. DZ clearance,
- e. Rations,
- f. Ammo/Pyro.

5. **Command and Signal.**

- a. Command -
 - (1) TF Comd,
 - (2) Airborne force comd,
 - (3) Air lift comd, BB
 - (4) Para coordinator;
- b. Signals -
 - 1) A/G/A frequency,
 - 2) Ground frequency,
 - 3) Call signs of DZ and aircraft;
- c. DZ markings;
- d. Lost comms procedures.

APPENDIX 2, ANNEX B

SUGGESTED ANNEX HEADINGS FOR AN AIR MOVEMENT ORDER TO AN AIRBORNE OPERATION ORDER

1. **Layout.** The air movement table forms a separate annex to the airborne assault operation order.
2. **Documentation.** Times of completion by units and distribution of the air loading tables, flight manifests, and aircraft load priority forms.
3. **Standing Orders and SOP.** Reference to any alteration in:
 - a. parachuting signals and aircraft drills;
 - b. release of containers;
 - c. release of special stores, such as bicycles or dogs; and
 - d. duties of ABLOs and other LOs.
4. **Issue of Special Stores:**
 - a. survival kits,
 - b. escape aids, or
 - c. LPUs.
5. **Flight Instructions:**
 - a. direction of run-in;
 - b. heights of drop for members and equipment;
 - c. second runs over the DZ;
 - d. hour and times of drop of members and heavy equipment.
6. **Aircraft Loading and Heavy Dropping:**
 - a. payload for each type of aircraft used in the operation;
 - b. any special loading restrictions other than those shown in the standard load diagrams; and

- c. any special instructions necessary for dropping and clearance of the DZ of heavy equipment.

7. **Liaison:**

- a. list of AMOs and ATLOs on each base airfield; and
- b. instructions to units on liaison with the airfield force.

8. **Miscellaneous:**

- a. disposal of equipment, casualties, and refusals in returning aircraft; and
- b. salvage of parachutes.

ANNEX C

SUGGESTED AIRBORNE FORCE COMMANDER BRIEFING FORMAT TO AIRCREW

1. **Ground Tactical Plan:**
 - a. current situations,
 - b. mission of airborne forces,
 - c. composition of force,
 - d. critical timing for ground operations, and
 - e. local air activity.

2. **Airborne Assault Plan:**
 - a. personnel strength and summary of major weapons and equipment;
 - b. tactical cross-loading as required;
 - c. personal equipment as required;
 - d. number of chalks - personnel and equipment;
 - e. confirmation of drop altitude;
 - f. location and description of DZ(s) (main and alternate) including marking;
 - g. number of passes (normally only one);
 - h. maximum winds authorized by airborne force commander;
 - j. agreed stop drop procedures;
 - k. action in event of incomplete drop;
 - m. jumpmaster or stick commander drill; and
 - n. communications with DZ (main and alternate) -
 - (1) prior to drop,
 - (2) during drop,

(3) following drop, and

(4) code words.

3. **Air Movement Plan:**

- a. names and location by chalks and aircraft tail number of airborne force commander, red star and senior passengers; and
- b. arrangements for in-flight communications between airborne force commander and chalk commanders.

4. **Alternate Plan:**

- a. review of alternate deployment plan including circumstances under which the alternate plan is to be adopted;
- b. details of alternate DZs and control arrangements at the alternate;
- c. locations of airheads where the force may be air-landed and control arrangements at these airheads;
- d. details of rendezvous and passwords for aircrew who may be forced down close to the objective area.

5. **Movement Plan:** confirmation of critical timings.