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AIRDROP SUPPORT OPERATIONS IN A THEATER OF OPERATIONS

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Preface

PURPOSE

FM 100-10 states that airdrop is a primary field service that will be required on the battlefield at the onset of hostilities. This manual (FM 10-500-1) provides doctrinal guidance to commanders and staff officers. It is used to plan, coordinate, and request the airdrop of supplies and equipment in a theater of operations. Its contents conform to Army and Air Force doctrine and procedures.

SCOPE AND APPLICABILITY

This manual addresses the Army's airdrop mission, both the joint and combined aspects. It presents basic principles of airdrop supply and resupply and the types and methods of airdrop, including the advantages and disadvantages of each. It also covers airdrop support units and their responsibilities at each echelon. Airdrop request procedures, recovery and evacuation procedures, and planning considerations are also covered. This manual applies to US forces worldwide under all levels of conflict and in all climates and geographical environments. It can be modified to apply to allied forces who may have been authorized to receive airdrop resupply support from US elements.

This manual supports FM 10-1. It should be used with FMs 63-1 through 63-4 and FMs 100-10, 100-16, 100-26, and 100-27.

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Unless this publication states otherwise, masculine nouns and pronouns do not refer exclusively to men.

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CHAPTER 1
Airdrop Support on the Battlefield

INTRODUCTION

Combat units carry only the supplies and equipment they will need until they can be resupplied. Airdrop planning and coordination must be continuous so that supplies and equipment are available for the supported units. Equally important is the distribution system. It must allow the timely delivery of the supplies and equipment. When possible, supplies and equipment are delivered directly to the using unit or close-by to save the units' time. As a primary field service (Table 1-1, page 1-1), airdrop provides a vital link in the distribution system. Therefore, field service and transportation planners must plan carefully for airdrop. Airdrop resupply operations can be used to extend all lines of communication. They are extremely important during the early stages of hostilities. Ground lines of communication and forward supply points will be priority threat targets at this time. Later, airdrop will become more important as the combat intensity increases and the depth of the battlefield extends. Airdrop resupply adds flexibility to the distribution system. It allows the combat commander to take the initiative while reducing the impact of overextending his supply lines. The force structure required to support airdrop resupply operations is highly specialized. It should be in place and ready to support this critical field service when hostilities first erupt.

TENETS OF AIRLAND BATTLE AND SUSTAINMENT IMPERATIVES

The basic tenets of AirLand Battle are initiative, agility, depth, and synchronization. Airdrop supports these tenets. It allows the combat commander to fulfill his duties while minimizing his concern about supply support or overextension of the logistic trail. It also allows the commander to place forces in greater depth and to maneuver them more effectively. The sustainment imperatives outlined in FMs 100-5 and 100-10 are anticipation, integration, continuity, responsiveness, and improvisation. Airdrop supports these imperatives by providing the supply and distribution systems the flexibility to change with the tactical situation.

Table 1-1.
Primary and secondary field services

- **PRIMARY**
  - Airdrop
  - Mortuary affairs (graves registration)
- **SECONDARY**
  - Clothing exchange and bath
  - Laundry and reimpregnation
  - Bread baking
  - Light textile and clothing renovation
  - Salvage

JOINT OPERATIONS

As a rule, the airdrop of supplies and equipment is a joint Army and Air Force effort. The Army owns the supplies and equipment to be rigged for airdrop and the special rigging equipment (parachutes, platforms, and containers). All supplies and equipment to be airdropped are rigged according to joint service manuals (Army FMs and Air Force TOs). Once the supplies and equipment are rigged for airdrop, they are moved to the departure airfield aboard Army transportation. They are then placed in a temporary holding location run by the Air Force or transloaded onto Air Force K-loaders which are used to load cargo aircraft. Loading the rigged loads aboard Air Force aircraft is an Air Force responsibility; however, Army personnel routinely assist the Air Force. The Air Force requires a specially trained crew for each type of airdrop mission being flown. Several types of Army-owned aircraft can be used for airdrop missions. However, their range and carrying capacity severely limit their use.

COMBINED OPERATIONS

Headquarters commands at echelons above corps may be combined commands (a mixture of US and allied forces). At corps and below, command organizations are usually national. Airdrop resupply is normally a national responsibility with each country having its own airdrop capability, if required. However, the doctrine set forth in this manual can be modified to fit the needs of a combined command.

THREAT

The threat's ability to disrupt ground lines of communication during the initial stages of hostilities is a strong concern of logistics planners. The threat may use personnel agents, unconventional warfare, or conventional forces to disrupt the land lines of communications. Supplies stored in forward locations are also likely targets. Capture or destruction of these supplies could severely strain the distribution system. Threat tactical doctrine emphasizes deep attacks using high speed and continuous momentum. These attacks could result in some units being temporarily separated from their supply lines. These cases show the need for having a responsive airdrop resupply system in place at the beginning of hostilities. Although airdrop support units operate primarily from the corps rear area and the communications zone, they must still protect themselves from direct and indirect threat actions. FM 10-400 addresses airdrop support unit defensive procedures, both active and passive.

BATTLEFIELD ENVIRONMENT

Army forces could become engaged in various combat scenarios. The geographical area could range from a tropical environment to one of extreme cold. Troops could be sent to a region with no preexisting US presence or to one with a well-developed support structure already functioning. Troops supported could be heavy forces, light divisions, or special operating forces such as a ranger regiment or special forces group, Overcoming the enemy's air defense will be critical to airdrop operations. Low-threat areas are characterized by small arms and lightweight, optically-aimed weapons. Medium-threat areas are characterized by weapons larger than .51 caliber and man-portable, shoulder-fired weapons. High-threat areas have such sophisticated air defenses that penetration is impossible unless suitable countermeasures and tactics are used The airdrop support doctrine in this manual concentrates primarily on the developed theater. It can, however, be applied to any situation. Chapter 8 presents other battlefield concerns.

CHAPTER 2
Principles of Airdrop Supply and Resupply Operations

INTRODUCTION

Airdrop resupply is normally used to deliver supplies and equipment to combat, combat support, or combat service support units when no other delivery method is possible. It provides a critical link in the transportation system. Most airdrop resupply missions are conducted for units in the divisional area or forward of the FLOT for deployed SOF (Rangers, SF) elements. However, situations could arise that would require airdrop resupply in the corps area or in the COMMZ. Airdrop support units can support airdrop missions flown at various airdrop altitudes. Current threat capabilities dictate that airdrop resupply missions should normally be flown at low altitudes (about 300 feet above ground level) and at airspeeds up to 250 knots. The advantages and disadvantages of the various types and methods of airdrop need to be considered when planning airdrop resupply operations.

STAGES OF SUPPLY

Supply in airdrop operations can be classified into three stages. These stages are accompanying, follow-up, and routine.

Accompanying

In the accompanying stage, supplies are taken into an airhead by the assault force. Each unit prepares its own accompanying supplies to support the tactical plan. Accompanying supplies are usually basic loads and selected supplies from supply Classes I, II, III, IV, V, VII, VIII, and IX. As a rule, accompanying supplies will support the assault force from two-to five days, or until the follow-up supply flow can be established.

Follow-Up

At the follow-up stage, supplies are airdropped to units until routine resupply operations can be set up. There are three types of follow-up supply—automatic, on-call, and emergency (SF only).

Automatic. This is a scheduled method of providing airdrop resupply to the assault force. The force commander, along with his logistics staff elements, estimates the quantities of supplies that will be consumed each day. He then computes the quantities needed to build up the reserve requirement. The automatic resupply plan is developed from these estimates. Items are rigged by an airdrop support unit and stored at the airdrop unit or departure airfield until the delivery date.

On-call. This method is similar to automatic resupply. Logistics planners determine in advance the supplies that may be required, depending on the situation. These supplies are then delivered to the airdrop support unit. They are then rigged for airdrop or held in bulk until needed. Since the supplies could be called for on short notice, it is preferable to rig them in advance. Assignment of load-unique numbers will facilitate the request procedures. Some of the light forces and SOF now have prerigged supplies held in the CONUS base for direct delivery to an operational area. These supplies have load-unique numbers that are known by the units authorized to request the supplies and the storage activity.

Emergency. This resupply method will be used to deliver mission-essential equipment and supplies needed to restore the operational capability and survivability of a Special Forces element and its indigenous force. Preplanned like an automatic resupply, an emergency resupply is delivered when—

- Radio contact has not been established between the deployed Special Forces element and its higher headquarters within a predesignated time after infiltration.
- The deployed Special Forces element fails to make a predetermined consecutive number of scheduled radio contacts.

Routine

The routine supply stage is established as quickly as the situation permits. Routine supplies are delivered as a result of normal requisitioning and issue procedures. They are used to replace supplies that have been expended or to establish reserve stocks.

TYPES AND METHODS OF AIRDROP

A knowledge of the types and methods of airdrop is important to the users, operations planners, and logistics planners involved in developing airdrop requests and equipment stockage requirements. However, the main concern of the unit requesting a mission is that the requested supplies arrive at the time and place required in a usable condition.

Types of Airdrop

Airdrop resupply is classified into four types (Figure 2-1, page 2-3). These are described in more detail below.

Free-drop. This type of airdrop is used infrequently, especially when airdrop equipment is readily available. Parachutes or other devices to slow the rate of descent of the supplies are not used. Some type of energy-dissipating material, such as honeycomb, may be placed around the supplies to lessen the shock when the load hits the ground. The load descends at a rate of 130 to 150 feet per second. Baled clothing and fortification and barrier materials are examples of nonfragile items that can be free-dropped successfully.

High-velocity. This type of airdrop was used extensively during the Vietnam period. Aircraft flying at higher altitudes were not as vulnerable to the unsophisticated air defense systems being used in South Vietnam. High-velocity airdrop uses a small parachute that generates enough drag to hold the load in an upright position during its descent at 70 to 90 feet per second. Items are placed on energy-dissipating material and rigged in an airdrop container. Subsistence items, packaged POL products, ammunition, and similar items may be delivered by this type of airdrop.

Low-velocity. Low-velocity airdrop can be used for all supplies and equipment certified for airdrop. Cargo parachutes reduce the rate of descent to no more than 28 feet per second. Depending on the weight of the load, one to eight parachutes are used. Items are rigged on an airdrop platform or in airdrop containers. Energy-dissipating material is placed under the supplies or equipment to reduce the shock when the load hits the ground. Fragile materiel, vehicles, bridging, and artillery may be airdropped by low-velocity techniques.

Low-altitude parachute extraction. LAPE airdrop is used to airdrop supplies and equipment from an aircraft flying about 5 to 10 feet above the ground. The load is rigged on a specially configured airdrop platform. Energy-dissipating material is placed under the load to reduce the shock when the load hits the ground. As the aircraft flies across the drop area, the load is extracted using one to three LAPE parachutes. The load falls at about 28 feet per second and slides across the extraction zone. The LAPE parachutes keep the load aligned with the extraction zone, prevent tumbling, and help slow the forward momentum. LAPE airdrop requires a relatively flat, smooth area requiring special preparations before it can be used. Almost every item that can be delivered by low-velocity airdrop can be delivered using LAPE airdrop.

Other types of airdrop. Systems have been developed that combine the various types of airdrop. One such system allows the release- of an airdrop bundle from a very high altitude. The bundle is initially slowed by a high-velocity parachute, falling about 90 feet per second. The high-velocity parachute keeps the load stabilized and in proper position during its initial stage. The load is rigged with a barometric device that activates at a predetermined altitude. When this occurs, a low-velocity parachute deploys. The parachute slows the rate of descent of the airdropped item to 28 feet per second or less before ground impact. This system and other similar systems are used mainly in support of SOF.

Methods of Airdrop

There are three primary and three secondary methods for releasing loads from an aircraft. These primary (extraction, door load, and gravity) and secondary methods are described below.

Extraction. The load, rigged on an airdrop platform, is pulled from the aircraft cargo compartment by an extraction parachute or a LAPE parachute. This method is used for all low-velocity and LAPE platform airdrops.

Door load. A small bundle is pushed or skidded out the paratroop doors. This method is used mainly for accompanying supplies and equipment during an airborne troop drop.

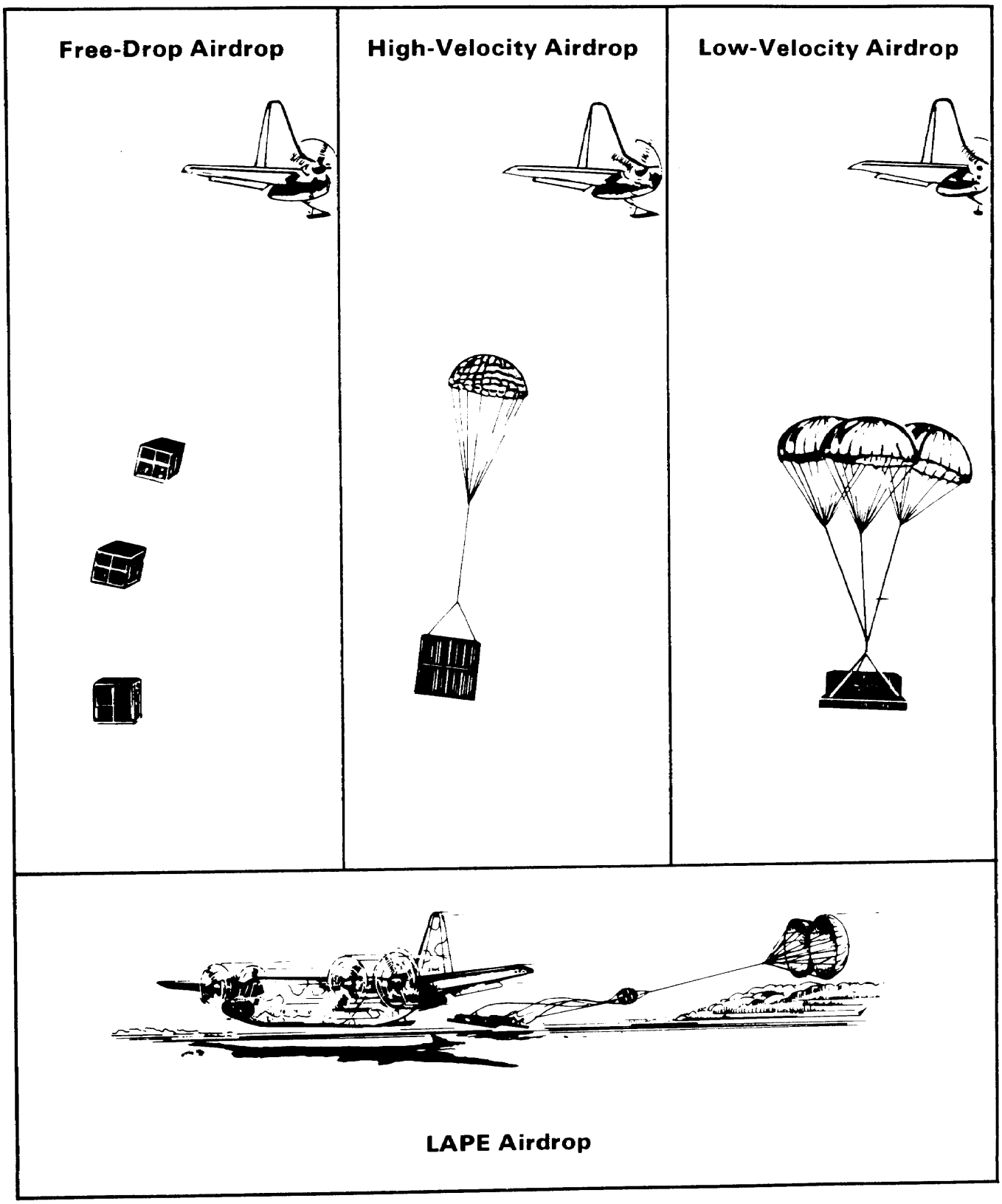


Figure 2-1. Types of airdrop

Gravity. Just before the drop, the aircraft is flown in a nose-up attitude. The bundles are restrained in the aircraft by a release gate of nylon webbing. When this is cut, they simply roll out of the aircraft. The main parachute, either high-velocity or low-velocity, is activated by a static line connected to the inside of the aircraft. This method is used for containers being delivered using both high-velocity and low-velocity techniques.

Secondary methods of airdrop. There are three secondary methods of airdrop. One method is to release a bundle from the cargo hook of a helicopter. The other two are used by SOF. In one of these methods, a bungee cord system is used as an aid to the gravity method. This system allows the airdrop of small bundles from a relatively low-flying, high-speed aircraft. The second SOF method releases a bundle shaped like a bomb from beneath the wing of certain jet (tactical) aircraft.

ADVANTAGES OF AIRDROP RESUPPLY OPERATIONS

Airdrop may offer several advantages over other methods of delivering supplies and equipment. The primary advantage is that it can be used when no other means is available for transporting needed supplies or equipment. Other advantages include the following:

- Airdrop results in less handling of supplies and shorter shipping times. Supplies can be delivered in one lift direct from the corps area or the COMMZ to the requesting unit near the FLOT. In contingency operations where stocks have been established and prerigged, supplies can be throughput directly from CONUS.
- Flying time and aircraft exposure are reduced in comparison to airland operations.
- The need for forward airfields is reduced.
- The need for ground handling equipment is minimized. This reduces congestion in airfield off-loading areas.
- Greater dispersion of ground tactical forces is permitted.
- Aircraft availability is improved compared to airland operations.

DISADVANTAGES OF AIRDROP RESUPPLY OPERATIONS

Airdrop resupply operations provide flexibility to the supply and distribution systems. Even so, there are some disadvantages that the staff planner must consider. The major disadvantage is the vulnerability of delivery aircraft to enemy air defense systems. Some airdrop aircraft fill both a tactical and a strategic logistic role. Loss of these aircraft could have a major impact on the tactical and logistic strategic lift capability. Other disadvantages include the following:

- Special airdrop equipment, being relatively heavy, reduces the amount of supplies or equipment that can be transported.
- Specially trained rigging personnel and aircraft crews are required.
- Adverse weather conditions may affect delivery accuracy.
- Drop zones must be secured to keep supplies from falling into enemy hands.
- LAPE zones normally require some special preparation.

CHAPTER 3
Airdrop Support Units

INTRODUCTION

The airdrop concept for a theater of operations is in a period of transition. The current concept (Figure 3-1, page 3-2) has existed for a number of years. It reflects the same type of airdrop support units in the corps and COMMZ. These units have the same mission. Since they are relatively large, they are difficult to resource. This has resulted in the bulk of the airdrop force structure being placed in the Army Reserve or in an unresourced category. Also, no specially designed unit is responsible for the deployment of the airborne elements of the airborne corps as there is for the airborne division. FM 101-10-1/2 planning factors include two major points that will affect the revised concept. First, most supplies will be airdropped using containers rather than the heavier airdrop platforms. Second, very little airdrop equipment will actually be recovered and sent back to the unit for repair and return to the supply system. Another factor is the ability of the distribution system to throughput supplies to units throughout the theater of operations. The various factors that were considered during the development of the revised concept (Figure 3-2, page 3-3) will be highlighted as each airdrop support unit is discussed in this chapter.

UNITS IN CURRENT AIRDROP CONCEPT

Under the current airdrop concept, three airdrop support companies, three airdrop support teams, and some small, special-purpose units provide airdrop support. These are discussed below.

Quartermaster Airdrop Supply Company

The Quartermaster- Airdrop Supply Company (Figure 3-3, page 3-4) is organized under TOE 10407. Normally, one company is allocated to each corps and TAACOM. It should be attached to the Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446). FM 10-400 has more information on this company.

Capabilities. The company can receive, store, and prepare 200 tons of selected supplies and equipment a day for airdrop. It maintains stocks of supplies used to rig items for airdrop. It assists, as required, in loading supplies and equipment into aircraft for airdrop. When airdrop supplies and equipment have been issued to the direct support level, they are no longer carried on formal reports at the MMC. The company maintains informal accountability through use of status cards and other such records until the items have been used on an airdrop mission. On a limited basis, the company assists in the recovery and evacuation of airdrop equipment. It performs unit-level maintenance on all assigned equipment. Each platoon of the company can operate independently if administrative support, food service, organizational supply and maintenance support, and operational supplies are provided.

Limitations. The company depends on other units for medical, chaplain, finance, and personnel services. It requires additional transportation support to move rigged loads to departure airfields and to assist in company displacement.

Quartermaster Airdrop Equipment Repair and Supply Company

The Quartermaster Airdrop Equipment Repair and Supply Company (Figure 3-4, page 3-5) is organized under TOE 10449; however, some units may still be organized under TOE 10417. Both TOES have two versions. One version supports an airdrop supply company. The other version supports the airdrop equipment support company of the airborne division. Normally, the company is attached to a Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446). FM 10-400 has more information on this company.

Capabilities. The company receives and classifies airdrop equipment, performs direct and general support maintenance, and reclaims airdrop equipment. It requisitions, receives, stores, and issues airdrop equipment to support an airdrop supply company or an airdrop equipment support company.

Limitations. The company depends on other units for medical, chaplain, finance, and personnel services. It requires additional transportation to move airdrop equipment to airdrop units and to assist in company displacement.

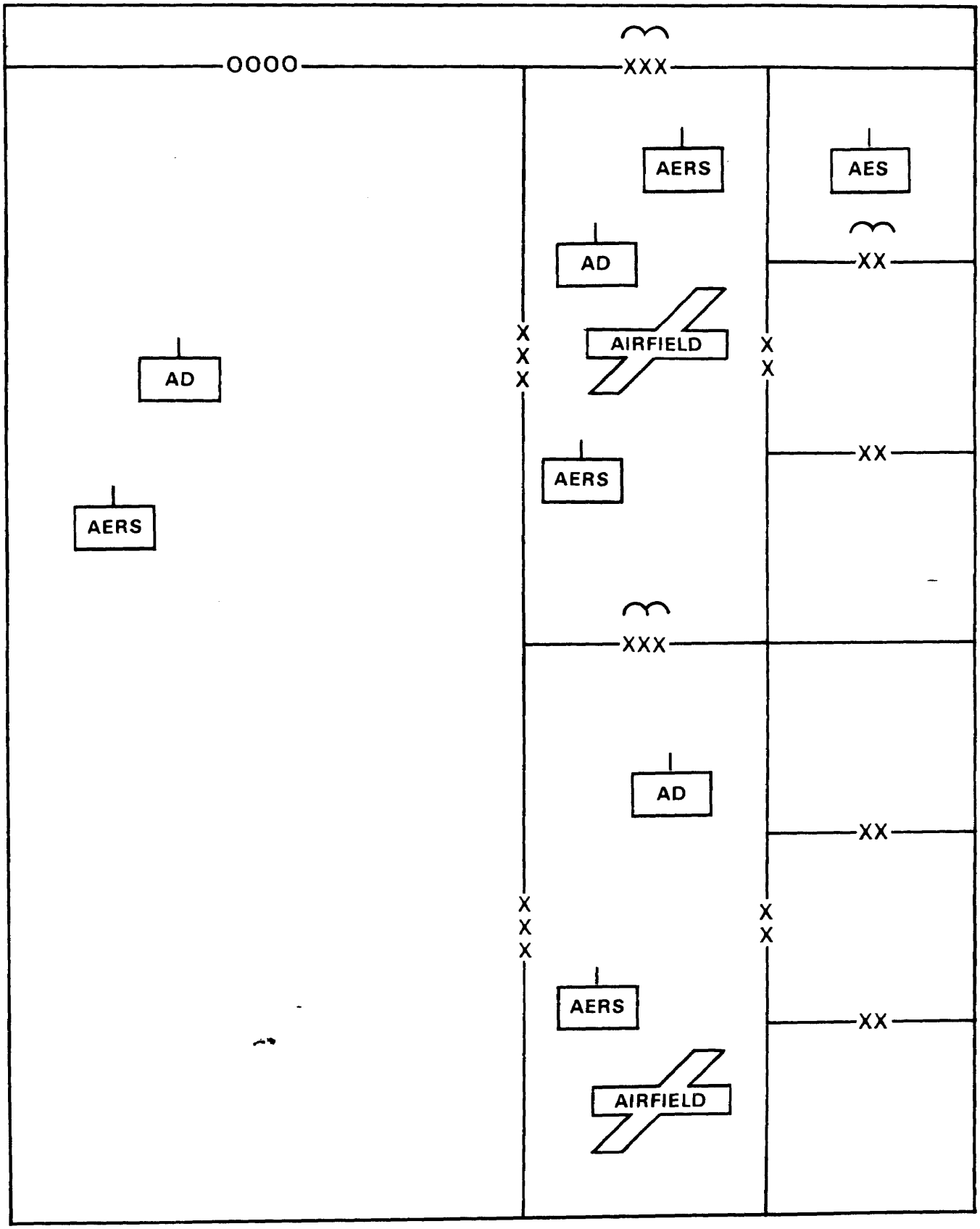


Figure 3-1. Current airdrop resupply concept

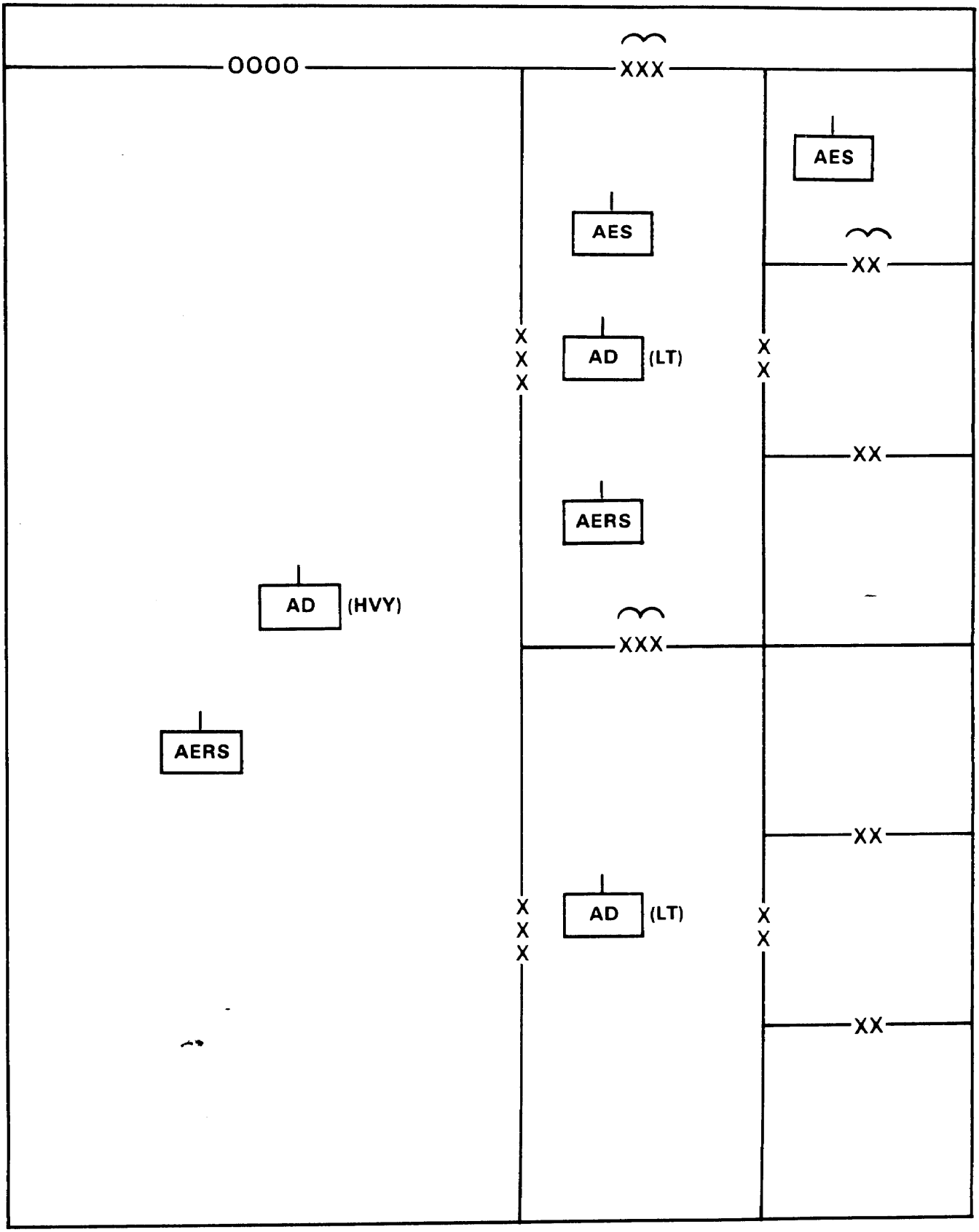


Figure 3-2. Emerging airdrop resupply concept

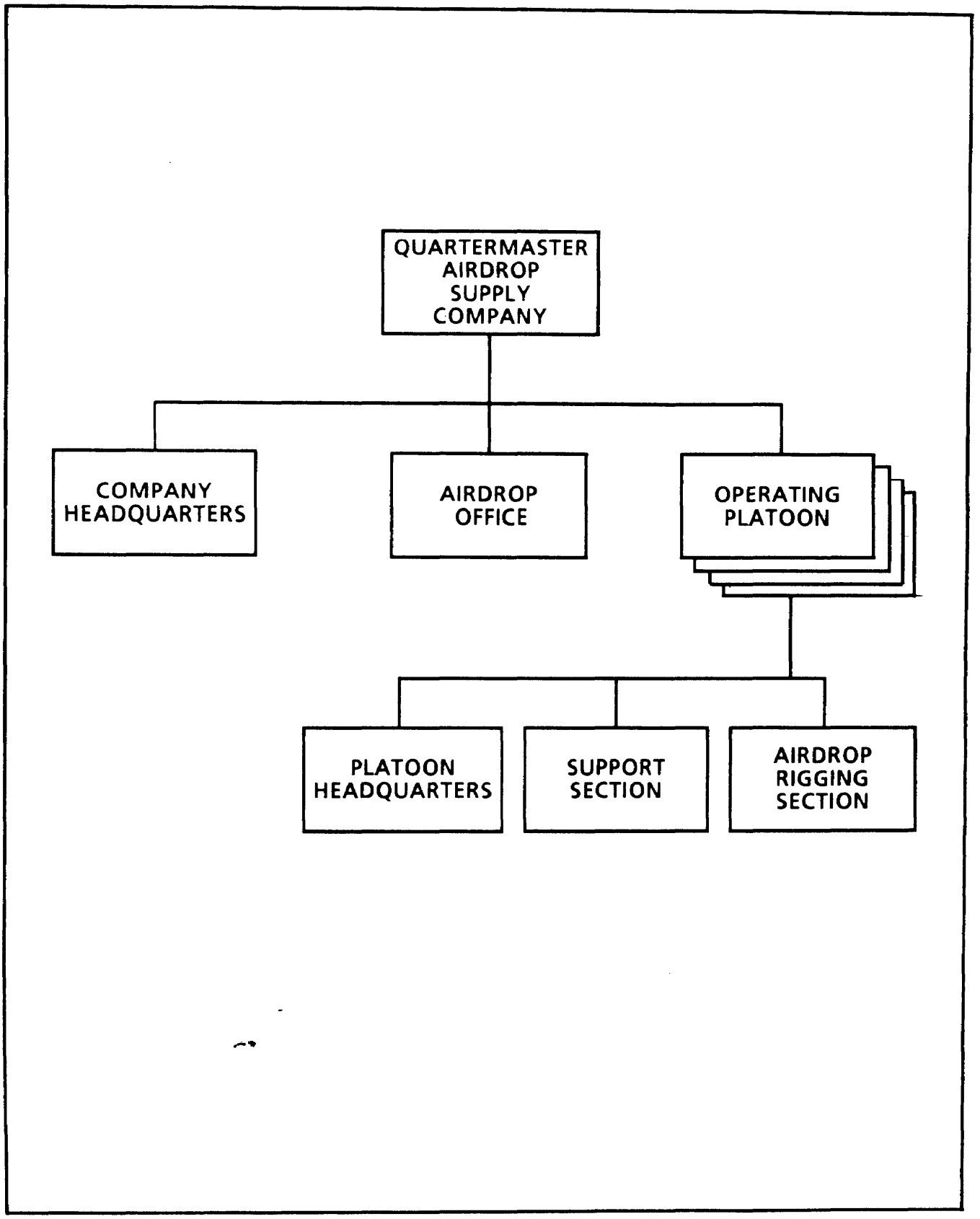


Figure 3-3. Quartermaster Airdrop Supply Company

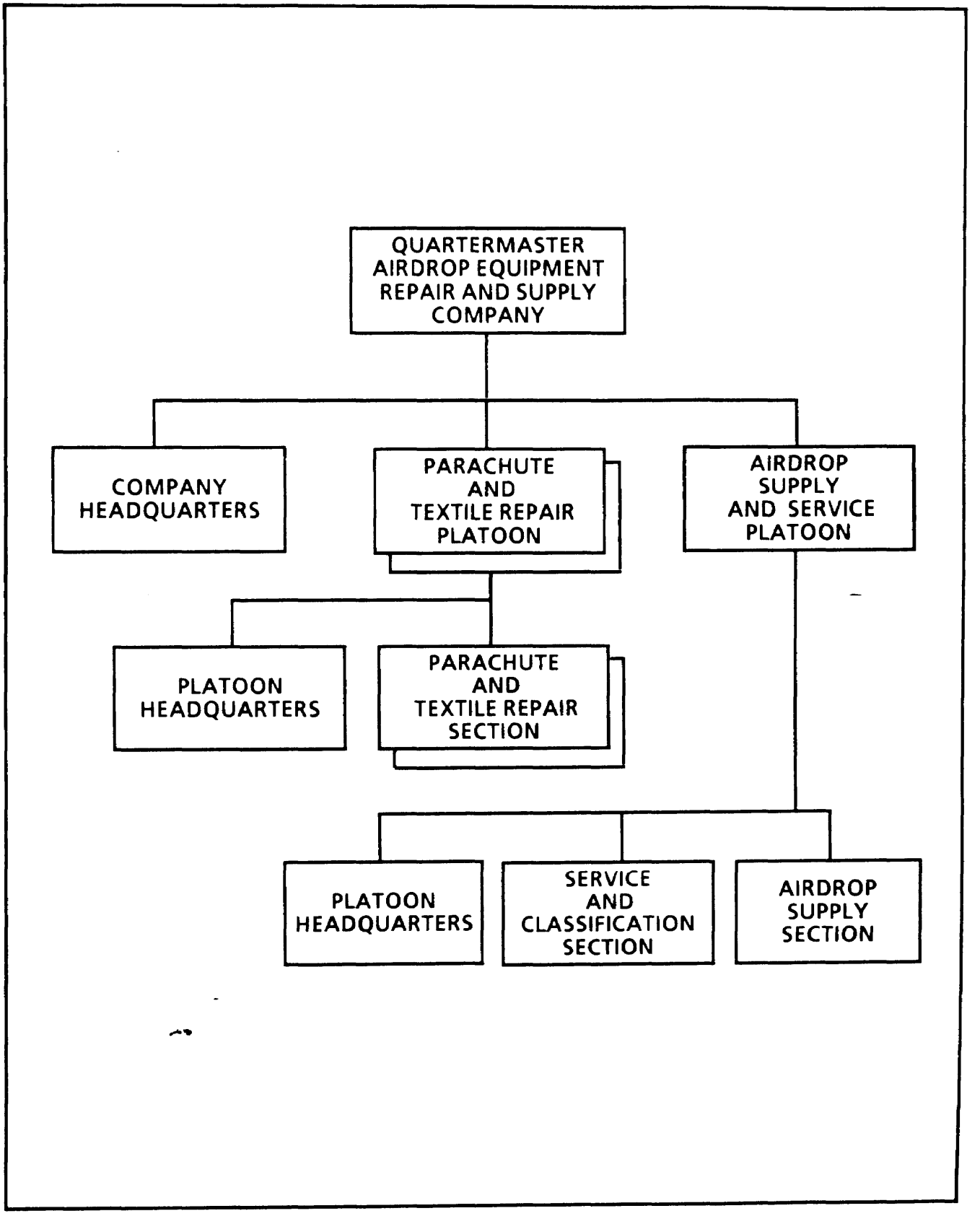


Figure 3-4. Quartermaster Airdrop Equipment Repair and Supply Company

Quartermaster Airdrop Equipment Support Company

The Quartermaster Airdrop Equipment Support Company (Figure 3-5, page 3-6) is organized under TOE 10337. The company is organic to the Supply and Transportation Battalion, Airborne Division (TOE 42055). FM 10-400 has more information on this company.

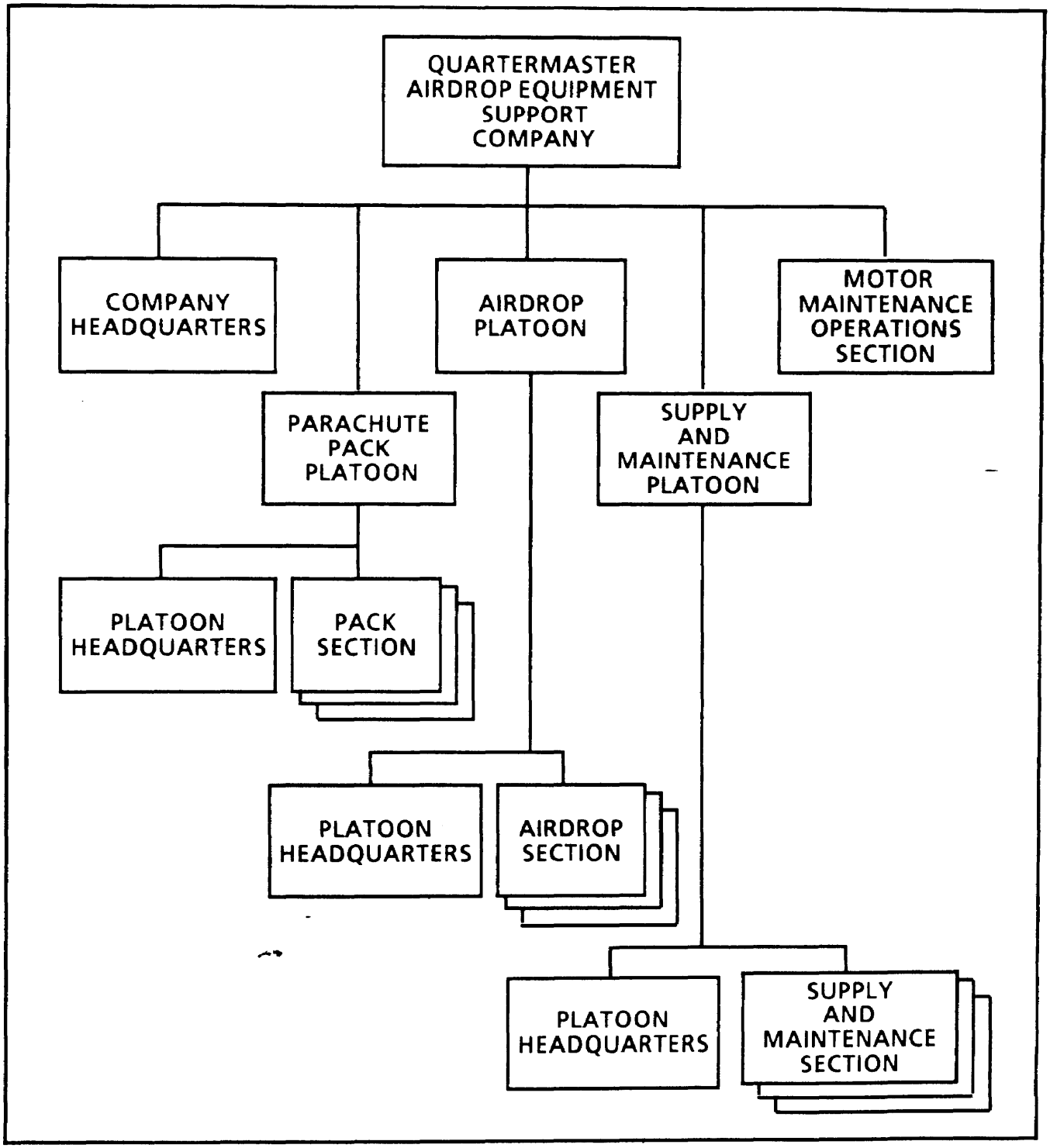


Figure 3-5. Quartermaster Airdrop Equipment Support Company

Capabilities. The company can support an airborne division. It receives, stores, and issues supply items in coordination with the DMMC of the airborne division. It accounts for airdrop items on the division property book the same as it accounts for other division items. The company maintains informal accountability through the use of status cards and other records. When the items are airdropped, they are dropped from accountability. The company packs parachutes and rigs and loads supplies and equipment for airdrop. It can provide 200 tons a day of follow-up supply for a 10-day period. It provides assistance in the recovery and evacuation of airdrop equipment. The company performs unit-level maintenance on airdrop equipment. It has the capability of task organizing to support the division's operational requirements.

Limitations. The company depends on other units for medical, finance, personnel, and maintenance services. It airdrops only the airborne division (troops and equipment) and its basic load. It requires additional transportation to move rigged airdrop loads to departure airfields and to assist in company displacement.

Airdrop Support Teams

Airdrop support teams are organized under 10510 TOES. They are used when units of less than company size are needed to increase the capabilities of fixed-strength airdrop units. The teams may operate independently, in groups, or as part of a company-sized airdrop support unit.

Team LA, Airdrop Supply Team. This team can provide 25 percent of the mission capability of the Quartermaster Airdrop Supply Company (TOE 10407).

Capabilities. The team can receive, store, and prepare 50 tons of selected supplies and equipment a day for airdrop. It maintains stocks of supplies used to rig items for airdrop. It assists, as required, in loading supplies and equipment into aircraft for airdrop. When airdrop supplies and equipment have been issued to the direct support level, they are no longer carried on formal reports at the MMC. The team maintains informal accountability through use of status cards and other such records until the items have been used on an airdrop mission. On a limited basis, the team assists in the recovery and evacuation of airdrop equipment. It provides personnel parachutes for 500 parachutists. It performs unit-level maintenance on all assigned equipment.

Limitations. The team depends on other units for medical, chaplain, finance, and personnel services. It requires additional transportation to move airdrop equipment to airdrop units and to assist in team displacement.

Team LC, Airdrop Equipment Repair and Supply Team. This team can provide 25 percent of the mission capability of the airdrop equipment repair and supply company.

Capabilities. The team receives and classifies airdrop equipment, performs direct and general support maintenance, and reclaims airdrop equipment. It requisitions, receives, stores, and issues airdrop equipment to support an airdrop supply team.

Limitations. The team depends on other units for medical, chaplain, finance, and personnel services. It requires additional transportation to move airdrop equipment to airdrop units and to assist in team displacement.

Team LE, Parachute Pack and Maintenance Team. This team can support 1,000 parachutists with personnel parachutes to include unit, direct support, and general support maintenance.

Capabilities. The team may be used in a theater army, a corps, or an independent division to inspect, pack, and maintain personnel parachutes. Normally, it is attached to a Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446).

Limitations. The team depends on other units for medical, chaplain, finance, personnel, and food services. It requires total transportation support for the unit to displace.

Miscellaneous Airdrop Support Units

In addition to those units already discussed, there are two small, special-purpose airdrop support units. These are discussed below.

Support Company, Special Forces Group. This company is organized under TOE 31803 and contains a small rigger section. The rigger section provides personnel and cargo parachute packing, unit maintenance of air delivery items, rigger support, and limited aerial delivery support to the

special forces group. The Quartermaster Airdrop Supply Company provides airdrop resupply support on a sustained basis for the SFG.

Support Company, Special Forces Battalion. This company is organized under TOE 31808 and contains a small rigger section. This rigger section provides personnel and cargo parachute packing, unit maintenance of air delivery items, and rigger support. The Quartermaster Airdrop Supply Company provides airdrop resupply support on a sustained basis for the special forces battalion.

UNITS IN NEW AIRDROP CONCEPT

The new airdrop concept provides for six types of airdrop support companies and several miscellaneous units. These are discussed below.

Quartermaster Light Airdrop Supply Company

The Quartermaster Light Airdrop Supply Company (Figure 3-6, page 3-8) is organized under TOE 10443. Normally, one of these companies will be allocated to each corps. It will replace the Quartermaster Airdrop Supply Company (TOE 10407) now allocated to the corps. This unit should be attached to the Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446).

Capabilities. This company can receive, store, and prepare 120 tons of selected supplies and equipment a day for airdrop. It maintains stocks of supplies used to rig items for airdrop using the container delivery system. It assists, as required, in loading supplies and equipment into aircraft for airdrop. When airdrop supplies and equipment have been issued to the direct support level, they are no longer carried on formal reports at the MMC. The company maintains informal accountability through use of status cards and other such records until the items have been used on an airdrop mission. On a limited basis, the company assists in the recovery and evacuation of airdrop equipment. Each platoon of the company can operate independently if administrative support, food service, organizational supply and maintenance support, and operational supplies are provided.

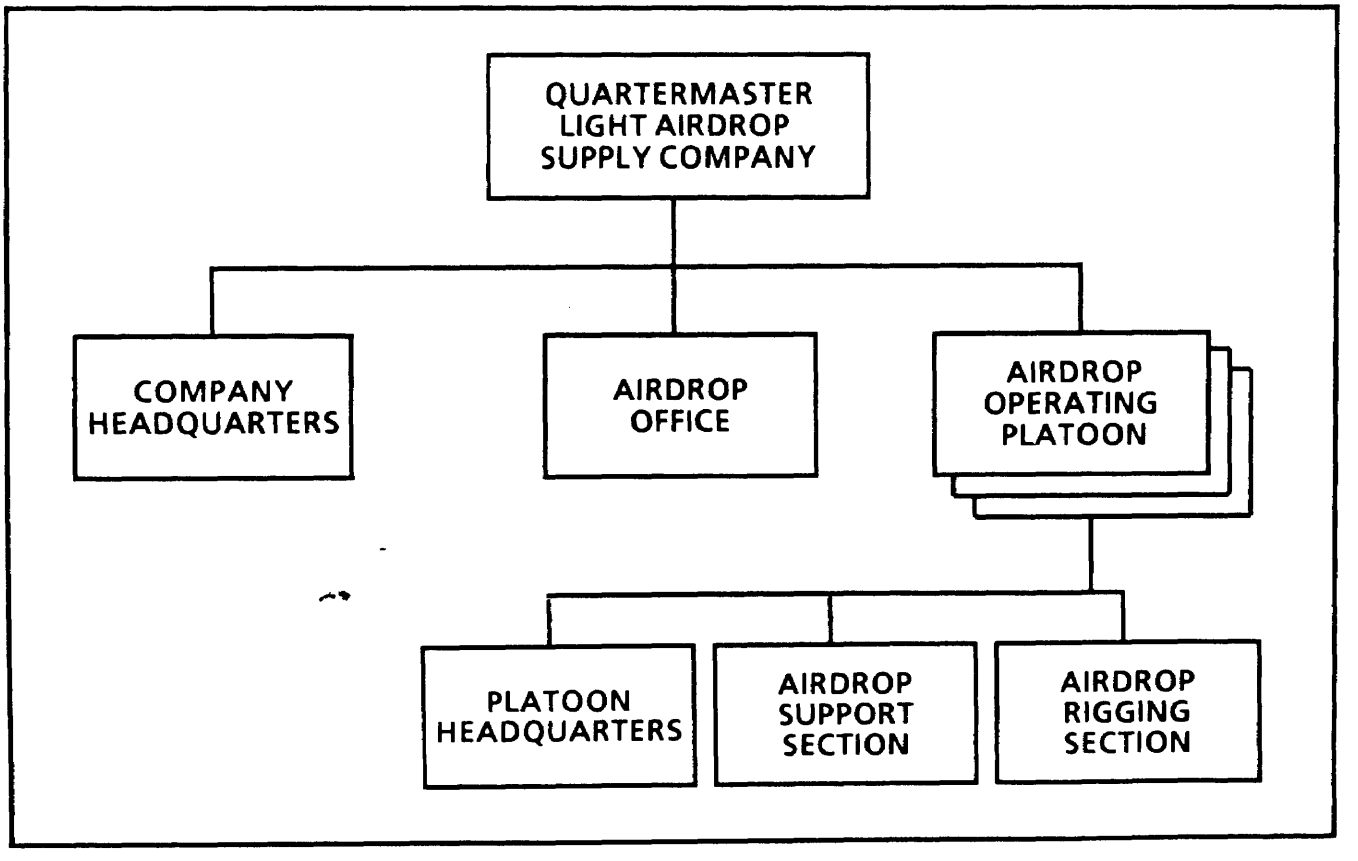


Figure 3-6. Quartermaster Light Airdrop Supply Company

Limitations. This company can rig only supplies and equipment that will fit inside a single or double A-22 container. Most supplies and small equipment items can fit into an A-22 container. A single A-22 container has a 4- by 4-foot base. It can be rigged to a maximum height of 100 inches. The double A-22 container has a 4-by 8-foot base. It can be rigged to a maximum height of 100 inches. Airdrop requests for items that cannot be rigged in these containers must be passed to the supporting TAACOM. The items then will be rigged by the heavy airdrop supply company. The company depends on other units for medical, chaplain, finance, and personnel services. It requires additional transportation to move rigged loads to departure airfields and to assist in company displacement.

Quartermaster Heavy Airdrop Supply Company

The Quartermaster Heavy Airdrop Supply Company (Figure 3-7, page 3-9) is organized under TOE 10643. Normally, one of these companies will be allocated to each TAACOM. It will replace the Quartermaster Airdrop Supply Company (TOE 10407) currently allocated to the TAACOM. This unit should be attached to the Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446).

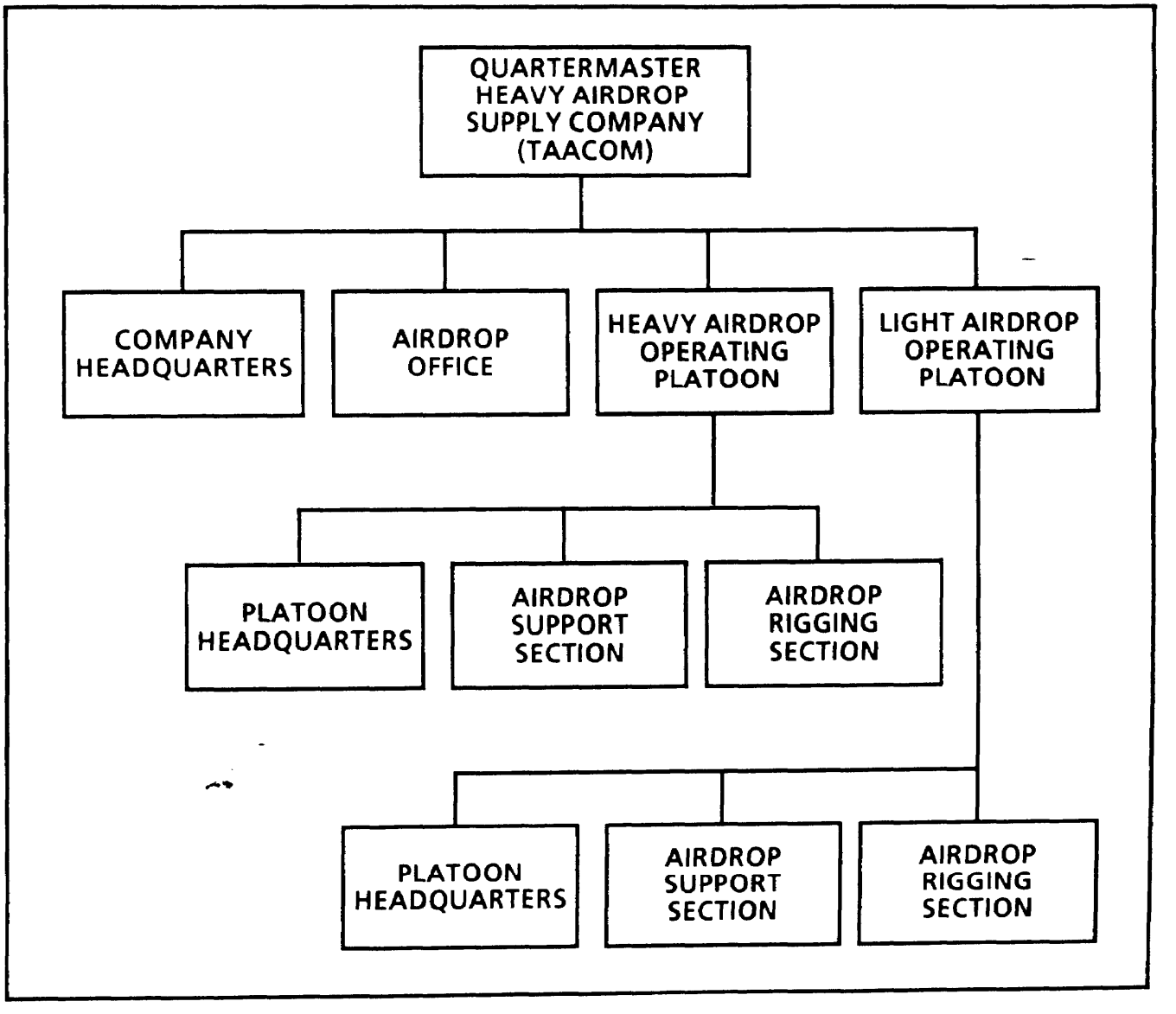


Figure 3-7. Quartermaster Heavy Airdrop Supply Company (TAACOM)

Capabilities. This company can receive, store, and prepare 200 tons of selected supplies and equipment a day for airdrop. It can rig container loads the same as the Quartermaster Light Airdrop Supply Company. It also can rig platform loads weighing up to 42,000 pounds each. The company rnaintains stocks of supplies used to rig items for airdrop. It assists, as required, in loading supplies and equipment into aircraft for airdrop. When airdrop supplies and equipment have been issued to the direct support level, they are no longer carried on formal reports at the MMC. The company maintains informal accountability through use of status cards and other such records until the items have been used on an airdrop mission. Only under unusual circumstances will the company assist in the recovery and evacuation of airdrop equipment. Each platoon of the company can operate independently if administrative support, food service, organizational supply and maintenance support, and operational supplies are provided.

Limitations. The company depends on other units for medical, chaplain, finance, and personnel services. It requires additional transportation support to move rigged loads to departure airfields and to assist in company displacement.

Quartermaster Airdrop Equipment Repair and Supply Company (Airborne Corps)

The Quartermaster Airdrop Equipment Repair and Supply Company (Airborne Corps) (Figure 3-8, page 3-11) will be allocated to the airborne corps. It will provide airdrop equipment supply and maintenance support to the three airdrop support units. These units are the airborne division airdrop equipment support company, the airborne corps airdrop equipment support company, and the light airdrop supply company. The airborne corps will be the only corps with an airdrop equipment repair and supply company. It will normally be attached to the Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446).

Quartermaster Airdrop Equipment Repair and Supply Company (TAACOM)

The Quartermaster Airdrop Equipment Repair and Supply Company (TAACOM) (Figure 3-9, page 3-12) will be al1ocated on the basis of one per TAACOM. The company will provide airdrop equipment repair and supply support to the heavy airdrop supply company allocated to the TAACOM. It must also provide airdrop equipment repair and supply support to the light airdrop supply companies allocated to the supported corps (except for the airborne corps). It will normally be attached to the Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446).

Quartermaster Airdrop Equipment Support Company (Airborne Corps)

The Quartermaster Airdrop Equipment Support Company (Airborne Corps) (Figure 3-10, page 3-13) will be allocated to the airborne corps to provide deployment support to the airborne elements. It will also be capable of providing 200 tons per day of follow-up supply for a 10-day period. It will normally be attached to Headquarters and Headquarters Detachment, Supply and Service Battalion (TOE 42446).

Quartermaster Airdrop Equipment Support Company (Airborne Division)

This unit will remain unchanged under the new concept. It will remain organized under TOE 10337. See page 3-6 and Figure 3-5 (page 3-6) for information on the assignment, organization, capabilities, and limitations of this unit.

Miscellaneous Airdrop Support Units

As in the current concept, there are two miscellaneous airdrop support units. These units will remain organized as discussed earlier in this chapter.

Support Company, Special Forces Group. This company is organized under TOE 31803 and contains a small rigger section. The rigger section provides personnel and cargo parachute packing, unit maintenance of air delivery items, rigger support, and limited aerial delivery support to the special forces group. The light or heavy airdrop supply company provides airdrop resupply support on a sustained basis for the SFG.

Support Company, Special Forces Battalion. This company is organized under TOE 31808 and contains a small rigger section. The rigger section provides personnel and cargo parachute packing, organizational maintenance of air delivery items, and rigger support. The light or heavy airdrop supply company provides airdrop resupply support on a sustained basis for the special forces battalion. See FM 100-25 for additional information on how SOF are supported in the theater.

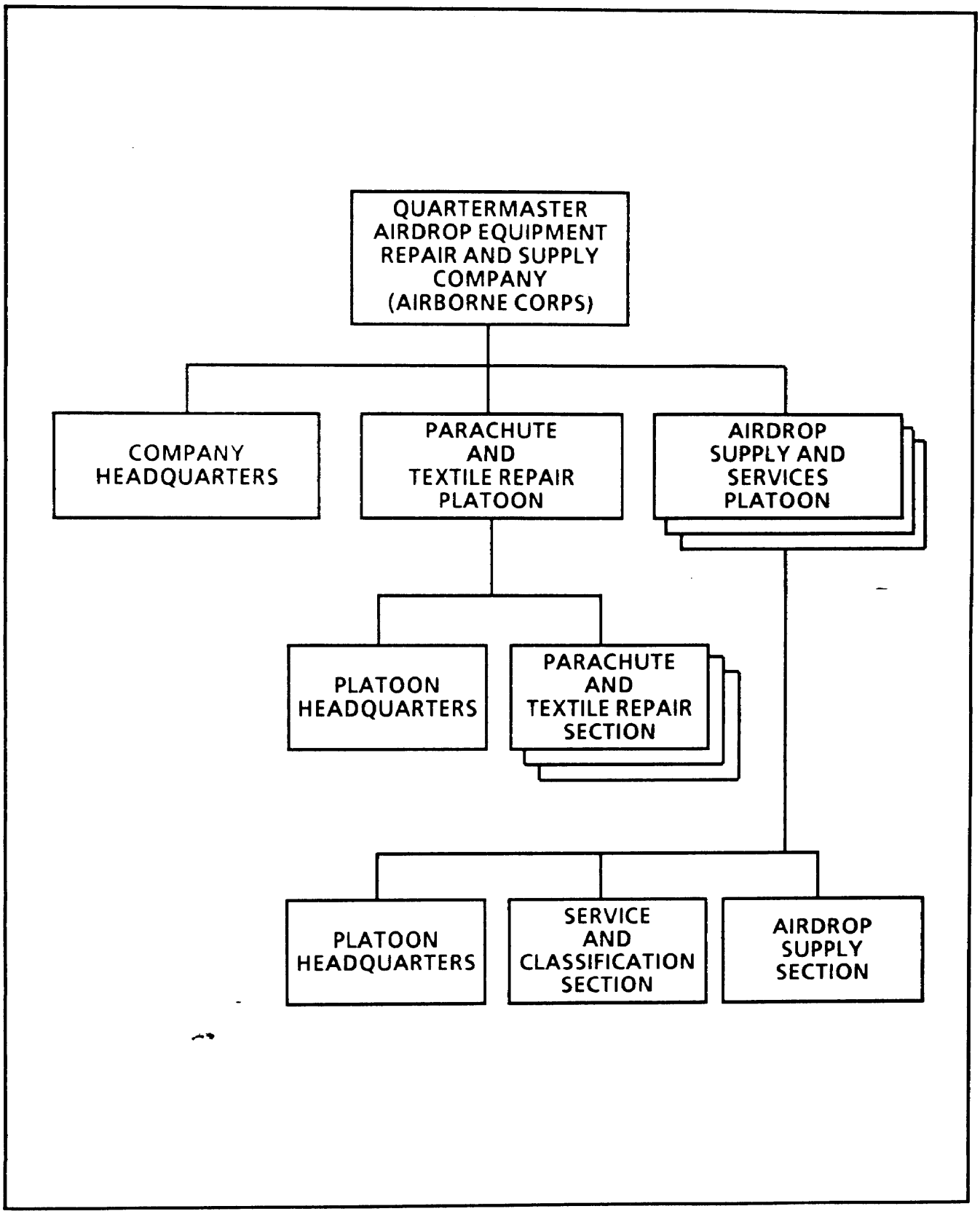


Figure 3-8. Quartermaster Airdrop Equipment Repair and Supply Company (Airborne Corps)

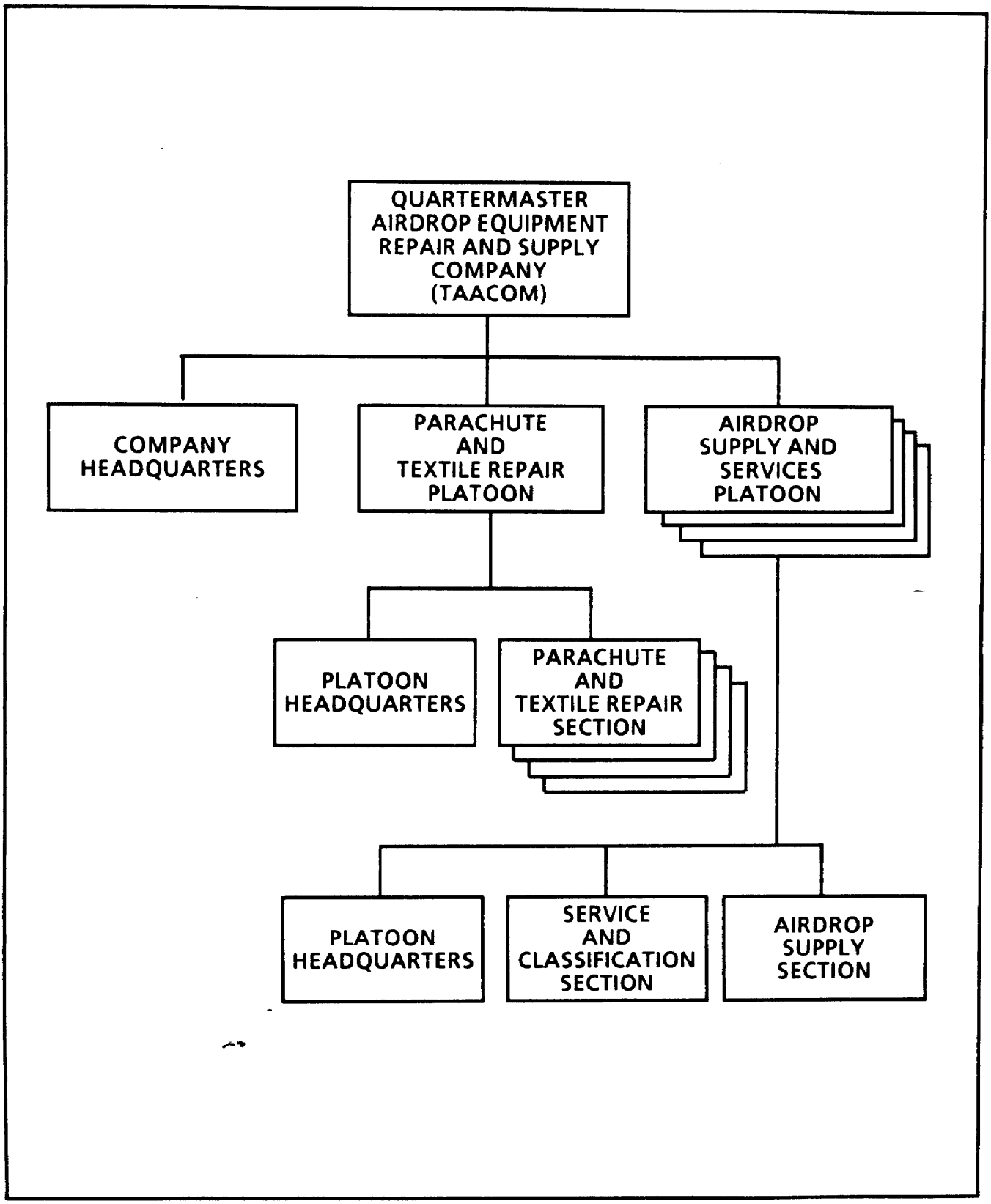


Figure 3-9. Quartermaster Airdrop Equipment Repair and Supply Company (TAACOM)

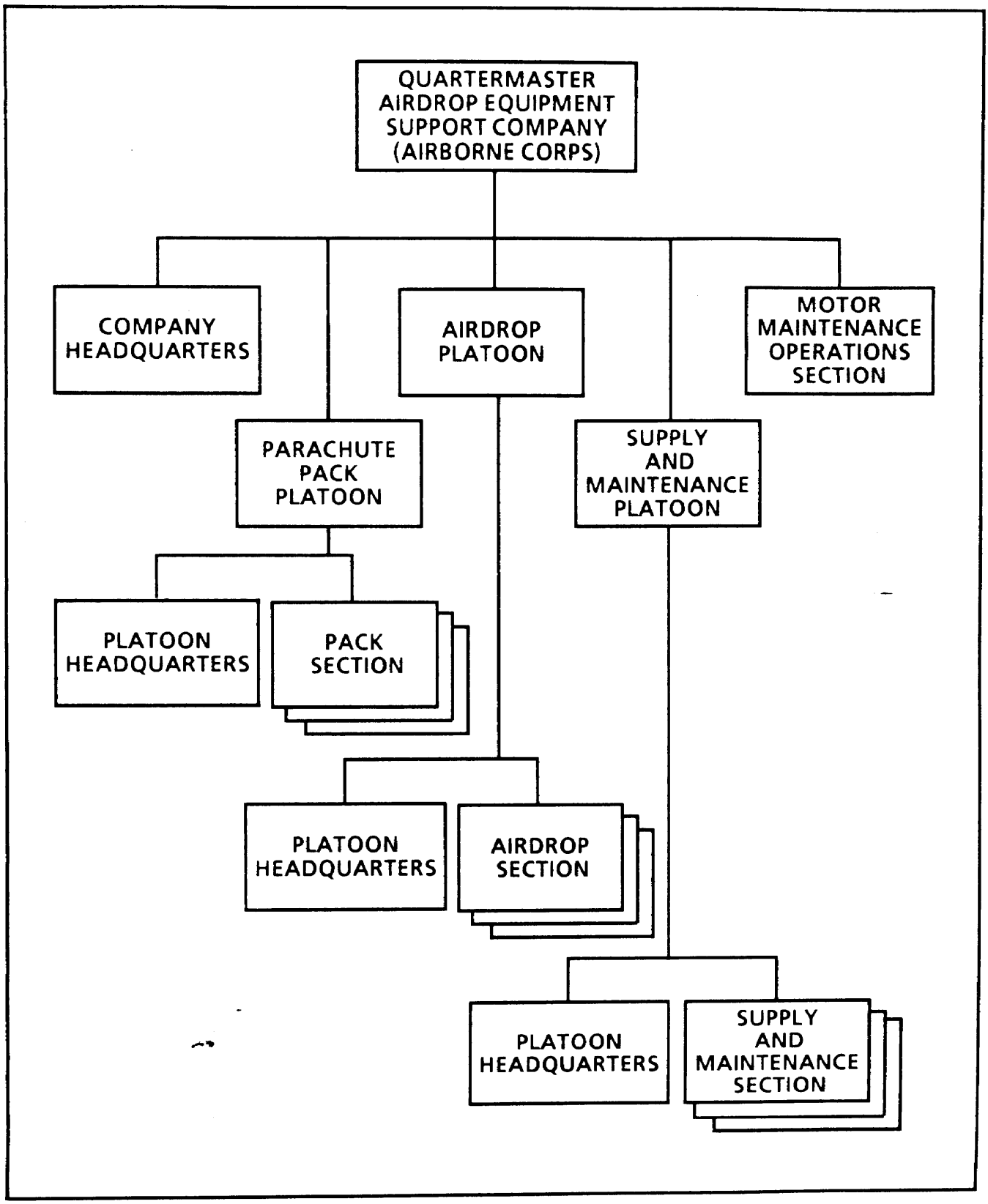


Figure 3-10. Quartermaster Airdrop Equipment Support Company (Airborne Corps)

CHAPTER 4
Airdrop Support Responsibilities

INTRODUCTION

Clear command and control channels must be set up in the theater of operations to meet the airdrop needs of the tactical commander. At each echelon, responsibilities must be clearly understood so that the required support can be provided quickly. The airdrop concept must provide responsive support so that the combat elements can influence the outcome of the action. Airdrop resupply normally is a joint action between the US Army and the US Air Force. Army elements provide the required supplies, rig them for airdrop, and deliver them to the departure airfield. Air Force personnel load the supplies onto the airdrop aircraft and fly the mission. Army personnel will control the drop zone. If Air Force combat control team personnel are available, they will provide navigational assistance to the airdrop aircraft.

THEATER LEVEL

At theater level, support is either airlift support or rigging support. Airlift support is normally an Air Force function. Rigging support is normally an Army function.

Airlift Support

Theater component commanders state their airlift support requirements in priority sequence. The JFC validates the requirements and places them within the theater priority system. Airlift requests are then supported according to the priorities set up by the JFC. Since aircraft are limited and demand normally exceeds availability, the JFC will appoint an agent. This agent will validate all airlift requests, establish priorities, and pass requirements to the Air Force for execution. All airlift requirements will be sent through this agent. The JFC may also set up a JTB of service representatives. The JFC does not include Army aviation assets in the apportionment process.

Rigging Support

In the fully developed theater of operations, airdrop support units are required in each TAACOM. These units will provide airdrop resupply to elements in the supported corps area. They will also provide airdrop resupply to the forward elements when the corps airdrop support units cannot.

CORPS LEVEL

Corps level support is either airlift support or rigging support. Airlift support is normally an Air Force responsibility. Rigging support is normally accomplished by Army elements.

Airlift Support

The COSCOM ACofS, Transportation, oversees the MCC. The MCC controls all combat service support transportation movement activities within the corps. Airlift requests are normally validated by the support operations officer or the MCC.

Rigging Support

Airdrop support units are allocated to each corps. These COSCOM units will normally be attached to the supply and services battalion in the rear corps support group. However, as for other CSS units, they may be allocated to the active component, reserve component, or the unresourced force composition. Planners should be familiar with time-phased deployment lists to be sure that plans mesh with on-the-ground capability. The airdrop support units support all elements of the corps. Most airdrop resupply missions will be to units operating near the FLOT. Requirements for airdrop resupply support that cannot be met by the corps will be forwarded to the theater. Long-range surveillance units, aviation units, and other units requiring personnel parachute support receive this support from the airdrop support unit at corps.

DIVISION LEVEL

Division level support is either airlift support or rigging support. Airlift support is normally an Air Force function. Rigging support is normally an Army function.

Airlift Support

The DTO plans and coordinates airlift movements in the division. Airdrop requests flow from

the requesting unit to the division TOC. Preplanned airdrop requests are not as time sensitive as immediate requests. They are processed through G4 channels in coordination with the DTO. Immediate requests are time sensitive. Therefore, they must be processed through G3 channels. In either case, when the requirement is passed to corps, it is considered to have been validated by the division.

Rigging Support

Only the airborne division has organic airdrop support. Its airdrop support unit must be able to support an airborne insertion. This includes providing the necessary airdrop equipment and preparing the division's equipment for airdrop. After the airborne division has been inserted into an airhead, the organic airdrop support unit must provide 200 tons a day of follow-up resupply support for a 10-day period. All divisions, to include the airborne division, will request airdrop resupply support from the corps or theater. Long-range surveillance units, aviation units, and other units requiring personnel parachute support, other than in the airborne division, will receive this support from the airdrop support unit located at corps.

SPECIAL OPERATIONS FORCES

SFGs and the Ranger Regiment have only a limited airdrop resupply capability. For the Ranger Regiment, this comes from the TDA. For SFGs, this comes from the TOE. Both of these capabilities are designed, primarily, for providing insertion-type support similar to that provided by the airdrop support unit in the airborne division. Once these units have been inserted into a theater of operations, the theater commander is responsible for backup airdrop resupply support. Advance coordination must be made with theater airdrop units because of the unique airdrop equipment and delivery methods used in support of SOF units. See FM 100-25 for more information on SOF operations.

REQUESTING UNIT

The unit requesting airdrop resupply has several important responsibilities. These are reflected in actions that the requesting unit must take either before or after submitting its request.

Actions Before Submission

Prior to submitting its request, the unit must determine what supplies and equipment are needed and where and when they should be dropped.

Supplies and equipment needed. The quantities requested should be influenced by the hazards involved in conducting the airdrop resupply mission. For instance, the immediate need is ammunition. However, the unit may also need other supplies (such as water, rations, or medical supplies) before land lines of communication are reestablished. All of these supplies should then be requested at the same time. It is better to request more supplies than are actually needed than to have to make a second request within a few days.

Location of drop zone. The area where the supplies must be airdropped must be defined. The eight-digit coordinates for the center of the drop zone must be determined.

Time and date airdrop desired. When setting up the time and date for an airdrop, keep in mind the request is passed through TOC channels back to corps. At the corps level, supplies must be identified, delivered to the airdrop support unit, rigged for airdrop, delivered to the departure airfield, loaded aboard delivery aircraft, and flown to the drop area. Unless the supplies are on a preplanned request, it usually takes more than eight hours to receive the resupply by airdrop.

Actions After Submission

After submitting its request, the unit must prepare to receive the resupply. The drop zone must be prepared, secured, and controlled and provisions made for recovery and retrograde of supplies and equipment.

Drop zone preparation and security. Most airdrop resupply operations will deliver supplies in A-22 containers using either low-velocity or high-velocity parachutes. Therefore, little drop zone preparation will be required. This type of resupply can even be used to deliver supplies to a drop zone covered with relatively short trees. Security around the drop zone will be required to protect the drop zone support team and the recovery party. See FM 100-27 for additional information on drop zone criteria.

Drop zone control. Most airdrop resupply operations will be conducted without an Air Force

combat control team. Therefore, the receiving unit must operate the drop zone. This includes communications with the Air Force crew flying the mission. FM 57-230 has more information on the drop zone support team.

Recovery of supplies and equipment. The receiving unit should appoint a recovery team. The recovery team must retrieve the supplies and get them to the required locations quickly.

Recovery, retrograde, or destruction of airdrop equipment. Airdrop equipment is expensive and in short supply. Therefore, the unit receiving airdrop resupply must attempt to recover, protect, and retrograde this equipment. If the situation prevents recovery, the unit should destroy or ruin the equipment. TM 10-500-7 has additional information on airdrop equipment recovery. More information on retrograde is found in Chapter 6 of this manual (FM 10-500-1).

CHAPTER 5
Airdrop Request Procedures

INTRODUCTION

Requests for airdrop resupply are either preplanned or immediate. Preplanned requests are normally processed through G4 or S4 channels, and immediate requests are processed through G3 or S3 channels. Immediate requests are also forwarded through the Air Force airlift advance notification and coordination net. This allows the ALCC to identify early those aircraft to use for the mission.

PREPLANNED AIRDROP RESUPPLY REQUESTS

Preplanned airdrop requests are normally forwarded through logistics channels. Figure 5-1 (page 5-2) shows the flow for an airdrop request (both preplanned and immediate). This schematic will be discussed in detail later in this chapter. Logistics personnel in the TOC process this type of request. Since the mission has been preplanned, the request should be passed quickly, with little administrative delay. Once a request is passed, it is considered to have been validated at that level. Preplanned requests can be used to support contingency-type operations during the initial insertion of a combat unit. This is particularly true when the combat unit is a light division being sent into an area with an undeveloped logistics base. Preplanned requests can also be used to support a variety of operations, such as a deep attack where land maneuver forces are used. In this example, land lines of communication will be stretched or nonexistent. Therefore, the preplanning of airdrop resupply will allow the ground commander to maintain the initiative.

IMMEDIATE AIRDROP RESUPPLY REQUESTS

Immediate airdrop resupply requests are passed through command channels in the quickest way consistent with security (Figure 5-1, page 5-2). These requests result from unanticipated, urgent, or priority requirements. The theater senior validator (appointed by the theater commander) validates the requirement. The ALCC must then find the aircraft by diverting or canceling preplanned missions or by generating a standby sortie. Most immediate airdrop resupply missions are critical to a tactical mission or the survival of a unit. They should be completed at the required time and date if at all possible.

ARMY RESPONSIBILITIES

Normally, the airdrop request (Figure 5-1, page 5-2) starts at the company or battalion level with the filling out of DD Form 1974. See Chapter 4 for the requesting unit's responsibilities. The battalion passes the request to brigade. The brigade quickly checks with the supporting forward support battalion to see if an alternative to the airdrop resupply mission is available. If an alternative is not available, the request is passed to division. The division then coordinates with the DMMC, the DTO, and the DISCOM MCO to see if an alternative to an airdrop mission exists. If not, the request is passed to corps. The corps determines if it can support the airdrop request. The availability of rigging units, required supplies, and equipment is the primary concern. If the corps-mm support the request, it is sent to the CMMC, the CMCC, and the corps support group (Rear). The CMMC and the CMCC start the supply and ground transportation actions needed to get the required supplies to the airdrop support unit that will rig them for airdrop. The CMCC arranges to have the rigged loads moved to the departure airfield. It also sends the request for aircraft support to the JFCA or the theater army movements control agency (if a JFCA has not yet been appointed). The corps support group directs the supporting supply and services battalion and airdrop support unit to rig the required supplies. If the corps cannot support the airdrop request, it is immediately sent to the theater TOC. The theater TOC sends the airdrop request to the JFCA and the supporting TAACOM TOC. The JFCA validates the request for aircraft support and sends it to the ALCC for execution. The TAACOM TOC sends the request to the TAACOM MMC where the required MROs will be processed to the supporting supply unit. If the supporting supply unit is assigned to the ASG, the ASG coordinates the ground transportation to get the supplies to the airdrop support unit and then to the departure airfield. If the supporting supply unit is not assigned to the ASG, the ground transportation is coordinated by the supporting movement control team. The request is also sent to the supporting

ASG. This group directs the supporting supply and services battalion and airdrop support unit to rig the supplies. The airdrop support unit tells the TAACOM TOC when the rigged supplies will be ready for movement to the departure airfield. The TAACOM TOG coordinates the actual drop time and date with the ALCC and notifies the theater army TOC. The theater army TOC then passes the drop information back to the requesting unit through TOC channels. Drop information may also be passed through the Air Force airlift advance notification and coordination net.

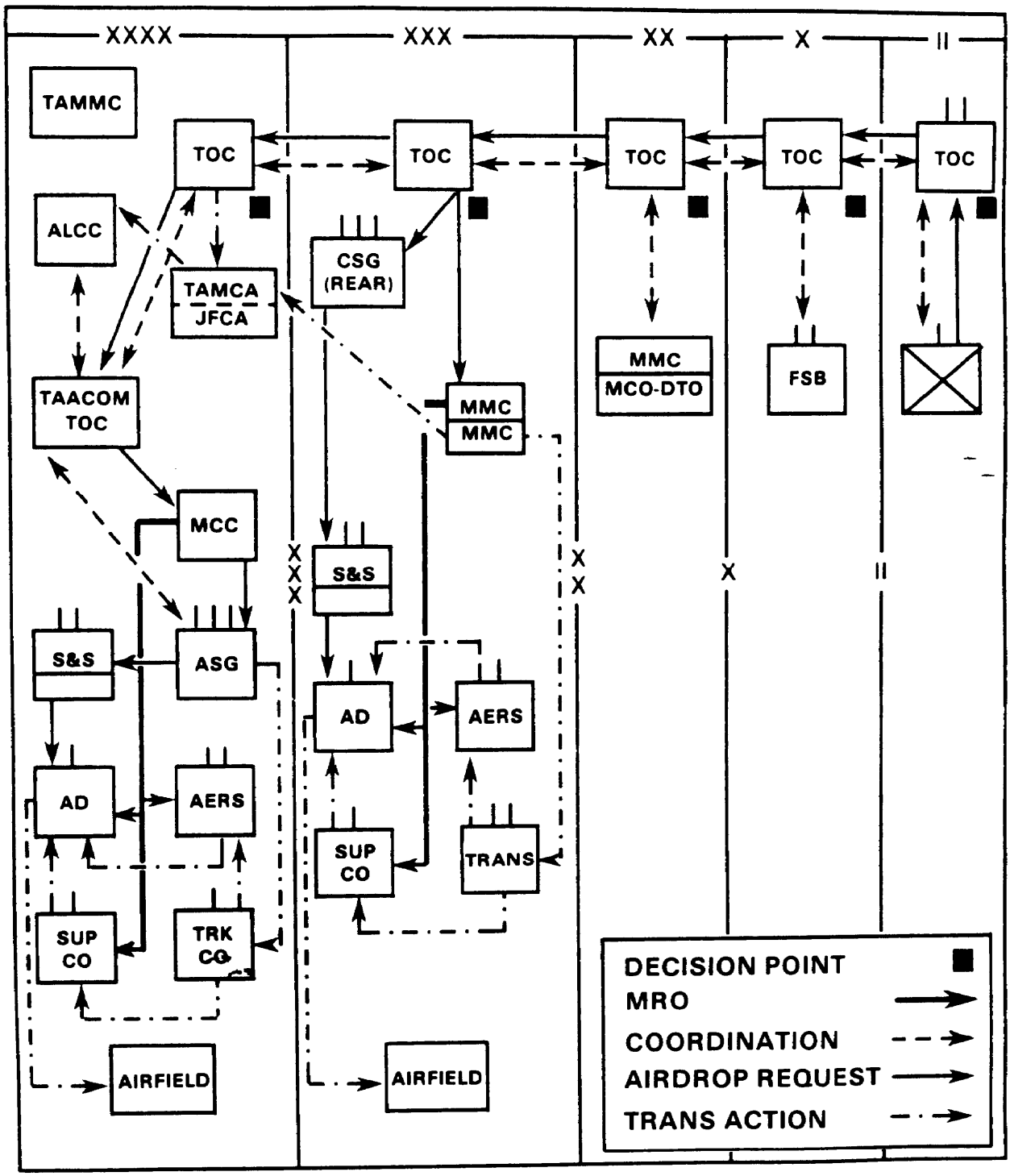


Figure 5-1. Airdrop request flow

CHAPTER 6
Retrograde of Airdrop Equipment

INTRODUCTION

Army personnel in a theater of operations must use every available supply source. This is especially true for airdrop equipment. Such equipment is expensive and will likely be in short supply during the early stages of a conflict. Salvage collection points and collection and classification points generally handle serviceable and unserviceable items.

RETROGRADE

The unit receiving airdrop resupply is responsible for the recovery and initial evacuation of airdrop equipment (Figure 6-1, page 6-2). If the situation permits, airdrop equipment is collected from the drop zone. The equipment is then returned to the salvage collection point run by the supply company, FSB, in the BSA. If the situation does not permit recovery, airdrop equipment will be either destroyed or buried to prevent its use by enemy forces. When received at the BSA salvage collection point, items are reported to the DMMC by the FSB and retrograded to the salvage collection point run by the supply and service company, MSB, in the DSA. The supply and service company, as directed by the DMMC after coordination with the corps MMC, will move the airdrop equipment either to a collection and classification point run by the service company in the corps support group or to an airdrop support unit. Under the current system, the AERS company will return serviceable items to the supply system, repair the reparable items and return them to the supply system, and further retrograde the remaining items. All of these actions will be coordinated through the corps MMC. Under the emerging system, the light airdrop supply company will simply make a quick check to see if the items are serviceable. It will keep serviceable items. Unserviceable items will be further retrograded. All of these actions will be coordinated through the CMMC. The CMMC will then coordinate further retrograde of the items with the supporting TAACOM MMC. Retrograde from the corps will be to either the TAACOM's AERS company or the collection and classification company. The AERS company classifies the airdrop equipment as either usable, reparable, or salvage. Usable items are placed in the ready-for-issue area. Reparable items are repaired and then placed in the ready-for-issue area. Salvage items are turned in to the DRMO. The DLA operates the DRMO in the TAACOM area. All of these actions will be coordinated through the TAACOM MMC. The collection and classification company will dispose of ADE as directed by the TAACOM MMC either by moving it to the AERS company or to DRMO. Depending on the distances involved, the AERS company could send inspectors to classify the airdrop equipment at the collection and classification company. More information on retrograde operations is available in FMs 63-3J, 63-20, 63-21, and 100-16.

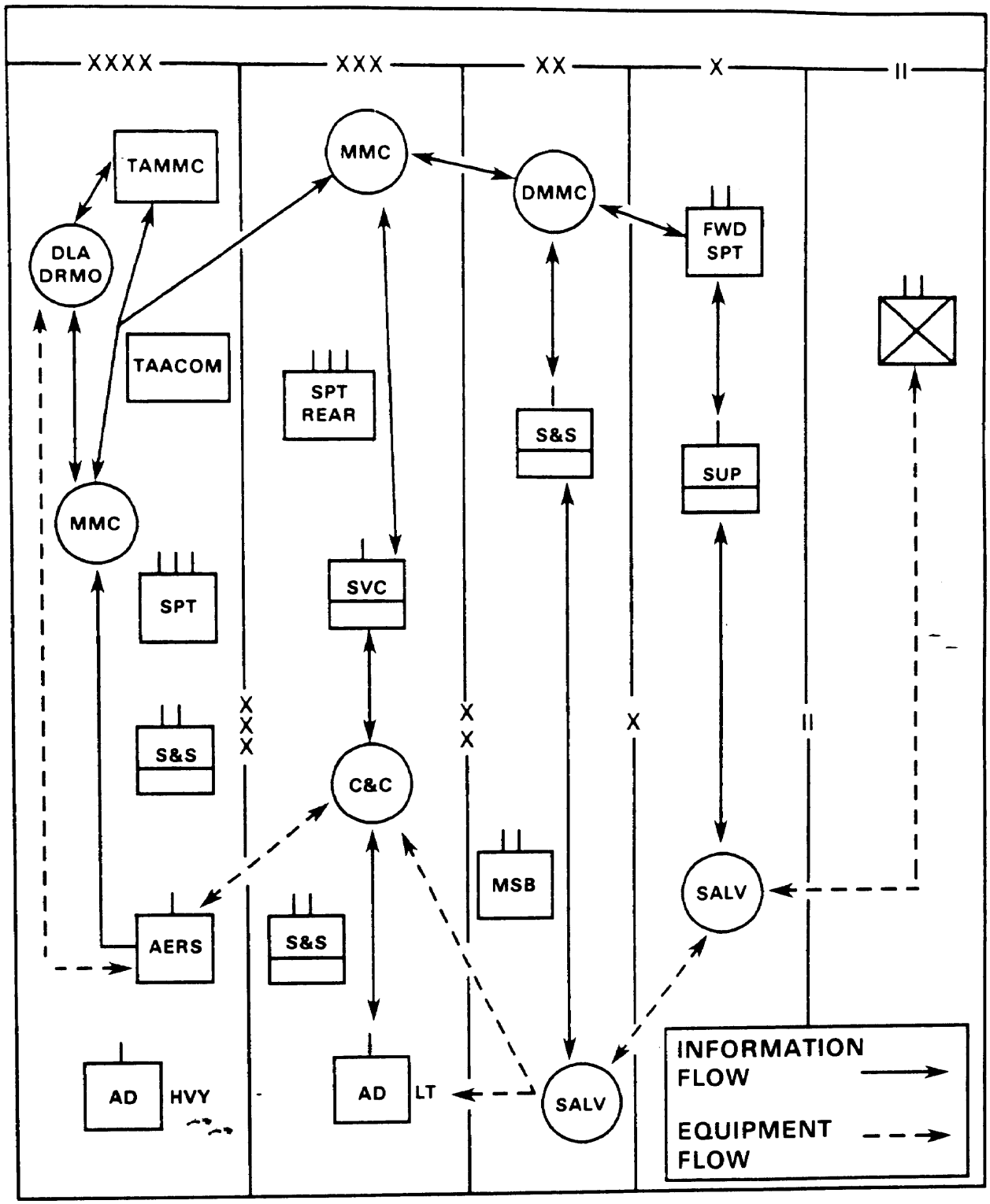


Figure 6-1. Retrograde of airdrop equipment

CHAPTER 7
Planning Considerations

INTRODUCTION

Most airdrop support units are allocated to forces other than those of the active Army. Since airdrop is generally required at the onset of hostilities, this creates a situation where detailed planning is required at all levels for units to receive the required airdrop support. Planning considerations discussed in this chapter will help the staff planner at division, corps, and theater level to develop an airdrop support plan for his unit. Also, planners should have a working knowledge of the total Army analysis process. This process allocates units to the various force compositions, such as the active Army, the National Guard, the Army reserves, and an unresourced force composition. See AR 71-11 for more information on the total Army analysis process. The planner must also have an understanding of supply as it pertains to authorized stockage lists, operational projects, war reserves, and planning factors. This chapter is designed to be used only as a guide for the airdrop planner.

AIRDROP RESUPPLY PLANNING FACTORS

Airdrop resupply planning factors and information on how to use them are given in FM 101-10-1/2. These planning factors can be used by staff planners at all levels. They will assist the staff planner in formalizing the anticipated airdrop work load, the force structure needed to support the work load, equipment stockage levels, aircraft requirements, and the type of airdrop delivery. FM 101-10-1/2 contains tables providing planning data (factors) for four geographic areas. These areas are Northern and Central Europe; Southwest Asia and Southern Europe; Korean peninsula; and Central America, the Pacific area less Korea, and low-intensity areas. Figure 7-1 (page 7-2) depicts one such planning factor table from FM 101-10-1/2. In using the airdrop resupply planning factors, the planner must assume—

- Hostilities may erupt on short notice in remote areas without existing logistics facilities or pre-positioned war reserve stocks.
- Airdrop resupply may be required with the onset of hostilities.
- Units deploy with enough supplies and equipment for two to five days.
- Increased reliance will be placed on airdrop as a resupply means, especially for light forces in contingency operations.
- Transportation priority will be surface, air-land, and airdrop.
- Airdrop resupply will be used primarily in the division area.

PLANNING FACTORS FOR AIR DELIVERY EQUIPMENT RECOVERY

Staff planners must use air delivery equipment recovery data to compute estimated quantities of equipment to be retrograded. Such data, with detailed information on how to use them, are found in FM 101-10-1/2. Figure 7-2 (page 7-3) is an extract of the data from FM 101-10-1/2. Two distinct types of airborne operations are given in this table: airborne assault and airdrop resupply Airborne assault is conducted by an airborne unit, such as the airborne division. Airborne assault normally results in the setup of an airhead that is slowly expanded outward with all-around protection. Since airdrop equipment is normally located inside the airhead, recovery rates are higher. Airdrop resupply operations are conducted to support all units near the FLOT. Under AirLand Battle doctrine with its nonlinear operations and scattered units, recovery operations will be more difficult; therefore, lower recovery rates are shown.

FORCE STRUCTURE

The staff planner must compare the doctrinal laydown of his combat service support units to the actual force structure available to execute the doctrine. In airdrop, the shortfall between doctrine and actual force structure is significant. Therefore, this becomes the planner's starting point. If the required airdrop force structure is not available in a particular corps or TAACOM, the staff planner must do the following:

- Examine the appropriate time-phased force deployment list to see when the required units will be in place.
- Determine if the designated airdrop support units are committed to more than one geographic area.

NORTHERN AND CENTRAL EUROPE

Supply Class	% of Gross Rqmts	Low-Velocity Platforms (%)	Low-Velocity Containers (%)	High-Velocity Containers (%)	Low-Altitude Parachute Extraction (%)	Free Drop
I	1.10	17	70	10	3	0
II	.30	12	42	30	6	10
III	1.79	34	31	6	29	0
IV	.66	42	15	10	21	12
V	3.26	16	59	8	17	0
VII	.39	60	2	0	38	0
VIII	.58	14	70	5	11	0
IX	.58	16	72	3	8	1
Water	.15	35	38	7	20	0

Figure 7-1. Sample of airdrop resupply planning factors extracted from FM 101-10-1/2

• Determine the force composition of the designated airdrop support units; for example, active Army (COMPO 1), National Guard (COMPO 2), Army reserve (COMPO 3), or the unresourced composition (COMPO 4).

• Maintain visibility over unit readiness.

Even though airdrop support units are not allocated to divisions, other than the airborne division, the division logistics planners should be sure that the supporting COSCOM and TAACOM logistics planners address these points.

FORCE STRUCTURE ALTERNATIVES

When airdrop support units are not available to meet airdrop resupply needs, the staff planner should develop alternatives. These will serve to minimize the impact on combat operations.

The primary alternative to offset a shortage of airdrop resupply units is the prerigging of critical supplies and equipment. Such supplies and equipment can be set up as an operational project to support a particular unit or contingency. When establishing prerigged projects, the planner should consider the following questions:

• Which supplies (and what quantities) are to be prerigged for airdrop? This is critical since the operational project will by necessity be of limited size. Planners may wish to check existing prerigged projects to get an idea as to what other planners have developed.

• What air delivery items are needed to rig the supplies? Airdrop rigging manuals (FM 10-500-series manuals) give various rigging procedures. Each manual also contains a list of the airdrop items needed to rig that specific load. The airdrop items will normally be listed in the operational project.

• Where will the prerigged supplies be stored? Normally, a storage area close to an airfield will be selected. Rigged loads should be stored in an area that is dry, secure, and protected from direct sunlight. Temperature- and humidity-controlled areas are preferred, but not required. The storage area must be free of rodents.

AIR DELIVERY EQUIPMENT ITEM RECOVERY RATES

1. Percent air delivery equipment items recovered/evacuated:

   a. Airborne assault - 39%

   b. Resupply operations - 25%

2. Condition of air delivery equipment items recovered/evacuated:

   a. Airborne assault

      (1) Serviceable - 35%

      (2) Repairable - 16% unit-level maintenance;
      14% intermediate

      (3) Salvage - 35%

   b. Resupply operations

      (1) Serviceable - 32%

      (2) Repairable - 15% unit-level maintenance;
      14% intermediate

      (3) Salvage - 39%

3. Ratio of air delivery equipment weight to total rigged weight:

   a. Containers - 10%

   b. Platform loads - 28%

Figure 7-2. Air delivery equipment item recovery planning factors extracted from FM 101-10-1/2

• Which activity will rig the supplies for airdrop and perform in-storage inspections? The first choice would be to have the supplies and equipment rigged by an airdrop support unit. If active Army units are not available, the planner may use reserve component airdrop support units. Another choice may be to consider training other support personnel, military or civilian, to rig the loads. This will reduce the need for parachute rigger personnel.

• How till the supplies and equipment be tested and rotated? Supply managers must monitor the prerigged loads for items with a prescribed life span. A system must also be set up to test petroleum products with minimum disruptions to the rigging. If water is a part of the prerigged project, a system should be set up to fill containers with fresh water at the last moment. Good planning ensures that the supplies and equipment in the prerigged projects will be delivered to the combat unit in a usable condition.

• How will the supplies and equipment be called for when needed? The logistics planner must set up a system to allow the combat leader to know what supplies and equipment are available in the prerigged project. Each load should be given a unique number. These loads can then be identified in the airdrop request, thereby reducing response

times. Call forward procedures for the prerigged projects held in CONUS for designated units are referred to in Army Materiel Command logistics policies and procedures.

• Will procedures be set up for reconstitution of the prerigged loads once they have been airdropped? Reconstitution of prerigged loads will be difficult unless airdrop support units are in place. If logistics planners are not able to reconstitute the prerigged loads quickly, the combat leaders should be aware of this information.

Another planning alternative is to establish airdrop equipment operational projects for selected high-risk theaters. With this, the combat commander will need only a minimum airdrop force structure in theater. The force structure resourced should be able to provide satisfactory training support as well as to maintain the operational project. Early deploying airdrop supply companies can then use the pre-positioned airdrop equipment. This makes the unit lighter and more deployable. It also reduces the early transportation requirement for airdrop equipment.

CHAPTER 8
General Logistics Considerations

INTRODUCTION

Airdrop resupply support is essential to sustain the soldier. This chapter addresses several areas that impact on the commander's ability to provide this support.

REAR AREA SECURITY OPERATIONS

Rear area security operations are actions taken to reduce or avoid the effects of enemy actions. Their proper use will ensure that airdrop resupply operations can be conducted continuously. Operations can be categorized as before attack, during attack, and after attack. Airdrop support units in the corps operate as prescribed by the CSS cell of the rear CP. In the COMMZ, rear area security is normally delegated to the ASG commanders through the TAACOM commander. Elements of the TAACOM MP brigade respond to threats that exceed the self-defense capabilities of bases. The TAACOM MP elements function under the OPCON of the ASG commander during the response force operation. Airdrop support units in the TAACOM operate as prescribed by the ASG commander. The organizational structure of airdrop support units permits operations from multiple locations. This is the best passive defense measure available to the commander.

MISSION KILL OPERATIONS

Airdrop support units must be familiar with the effects mission kill operations could have on their mission. Mission kill operations keep the unit from performing its job. Some examples of mission kill effects are blast, biological, directed energy, chemical, ballistic, sonic, psychological, and nuclear. Of these, the most likely to occur to airdrop support units are blast and chemical. Blast effects could collapse buildings or other structures resulting in damage to air delivery equipment. Placing the storage facilities in various locations can limit the effects of blast damage. Airdrop support units must protect air delivery equipment, especially nylon and other fabrics, from contamination by chemical agents. Effects of various chemical agents and decontamination chemicals on these items are unknown. Even if decontaminated, air items could suffer damage which may not show up until the item is actually used. Airdrop support units must whenever possible, reduce exposure of air delivery equipment to chemical agents. More information on NBC effects is provided later in this chapter. See FM 3-4 for examples of protective measures to reduce the hazard of chemical contamination. See FM 3-5 for a listing of field expedient covers. Defensive measures against other mission kill effects should be taken as needed.

RECONSTITUTION

Normally, only combat forces are concerned with reconstitution operations. However, because of the lethality and range of modern weapons, a high loss rate for combat service support personnel and equipment can also be expected. Threat force doctrine states that NBC munitions will be used, if needed, throughout the battlefield. Decontamination procedures are not now available for airdrop equipment, especially nylon components. Because of these problems, reconstitution must be considered for the airdrop support units. There are two ways to reconstitute airdrop support units. In-place reconstitution involves a one-for-one replacement of people and equipment, resupply of basic and prescribed loads, and repair of essential items. Airdrop equipment is unique; it cannot be replaced easily in allied countries. Temporarily, local national personnel can be used if appropriate supervisory and interpreter personnel are available. Unit replacement involves a one-for-one replacement of the unit. This alternative cannot be used effectively during the early stages of hostilities due to the traditional limited resourcing for airdrop support units. Once mobilization has been declared and enough train-up time has elapsed, this becomes a better alternative.

HOST-NATION SUPPORT

Host-nation support can provide the airdrop support system with facilities and labor. Buildings for use in parachute packing, air delivery equipment maintenance, air delivery equipment storage, and airdrop rigging will be used when available. Civilian labor can be used in rigging line operations, cargo parachute packing, air

delivery equipment maintenance, and operation of forklifts and trucks. As training will be required, this support must be planned and coordinated well in advance. Wartime availability of such support is a prime concern.

NBC ENVIRONMENT

An NBC environment will greatly affect the airdrop support unit mission. First, wearing of MOPP 4 gear reduces mission capability by at least 50 percent. The detailed work required in parachute packing, maintenance, and airdrop rigging is very difficult to perform while wearing the protective mask and gloves. Temperatures generated inside the protective clothing further reduce the time that can be effectively applied to the mission. Second, decontamination procedures have not been developed for airdrop equipment. Effects of various chemical agents and decontamination chemicals on the strength of the various nylon components have yet to be determined. Use of these items, once contaminated, is questionable. Airdrop support units must take every precaution to protect air items from exposure.

Glossary

ACofS Assistant Chief of Staff

active duty for training *See* JCS Publication 1-02.

AD airdrop

ADE airdrop equipment

AERS airdrop equipment repair and supply

AES airdrop equipment support

airdrop delivery of personnel or cargo from aircraft in flight.

Airdrops are categorized in height bands as follows:

- Ultra low level—Ground level to 50 feet above ground level.
- Low level—51 feet above ground level to 500 feet above ground level.
- Medium level—501 feet above ground level to 2,500 feet above ground level.
- High level—2,501 feet above ground level to 12,000 feet above ground level.
- Ultra high level—Above 12,000 feet above ground level.

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airdrop container a sling, bag, or roll designed for airdrop of supplies and equipment.

airdrop equipment special items of equipment used in airdrop of personnel, supplies, and equipment.

AirLand Battle the US Army's basic fighting doctrine. It reflects the structure of modern warfare, the dynamics of combat power, and the application of the classical principles of war to contemporary battlefield requirements. It is called AirLand Battle in recognition of the inherently three-dimensional nature of modern warfare.

airlift control center *See* JCS Publication 1-02.

ALCC airlift control center

ALOC air lines of communication

annual training *See* JCS Publication 1-02.

AR Army regulation

ASG area support group

attn attention

authorized stockage list a list of all items authorized to be stocked at a specific echelon of supply. The following are various types of authorized stockage lists: Prescribed load list, direct support unit stockage list, installation stockage list, maintenance shop stock, field Army depot stockage lists, theater authorized stockage list, national inventory control point demand stockage list, and list of items for operational projects.

BG brigadier general

BSA brigade support area

C&C collection and classification

CCT combat control team

CMCC corps movement control center

CMMC corps materiel management center

co company

combat control team *See* JCS Publication 1-02.

combat service support *See* JCS Publication 1-02.

combat zone *See* JCS Publication 1-02.

combined doctrine *See* JCS Publication 1-02.

communications zone *See* JCS Publication 1-02.

COMMZ communications zone

COMPO force composition

container delivery system a system for delivering supplies and equipment rigged in a fabric container for airdrop. Containers are rigged on a skid which allows them to gravity roll out of the rear of the aircraft when the release gate is cut and the aircraft is placed in a nose-up attitude. This will be the primary means of resupplying forces by airdrop.

CONUS continental United States

COSCOM corps support command

CP command post

CSG corps support group

CSS combat service support

DA Department of the Army

DC District of Columbia

DD Department of Defense

DISCOM division support command

DLA Defense Logistics Agency

DMMC division materiel management center

doctrine *See* JCS Publication 1-02.

DRMO Defense Reutilization and Marketing Office

drop zone *See* JCS Publication 1-02.

drop zone support team a team organized with a minimum of two personnel (Army or Marine Corps) trained and equipped to support unit airdrops of personnel, equipment, and container delivery systems when an Air Force combat control team is not available.

DSA division support area

DTO division transportation officer

DZST drop zone support team

field services those service functions of logistics performed by and for the Army in the field. They include airdrop, graves registration, clothing exchange and bath, laundry and reimpregnation, bread baking, light textile and clothing renovation, and salvage.

FLOT forward line of own troops

FM field manual

forward line of own troops (FLOT) *See* JCS Publication 1-02.

FSB forward support battalion

fwd forward

G3 Assistant Chief of Staff, G3 (Operations and Plans)

G4 Assistant Chief of Staff, G4 (Logistics)

high-velocity drop *See* JCS Publication 1-02.

hvy heavy

HQ headquarters

ID(L) Infantry Division, Light

immediate airdrop requests requests that result from unanticipated, urgent, or priority requirements. Most immediate airdrop requests can be further classified as emergency in nature if critical to the accomplishment of the tactical mission or the survival of a unit.

JCS Joint Chiefs of Staff

JFC joint force commander

JFCA joint force commander's agent

joint doctrine *See* JCS Publication 1-02.

joint force *See* JCS Publication 1-02.

joint transportation board The JTB is established by the unified, joint, or combined commander when the transportation capability of two or more services or allied nations is required to accomplish the forces' mission. The JTB recommends allocation of all transportation resources available to the theater according to priorities established by the commander.

JTB joint transportation board

LAPE low-altitude parachute extraction

LAPE zone or extraction zone a specified ground area upon which equipment or supplies are delivered by means of a jointly approved extraction technique from an aircraft in flight in close proximity to the ground.

LAPES low-altitude parachute-extraction system

K-loader a mobile, rollerized, flatbed cargo handler for loading 25K and 40K loads into aircraft.

LOC lines of communication (logistic routes)

low-velocity drop *See* JCS Publication 1-02.

lt light

materiel management center a functional center that performs integrated supply and maintenance management for all classes of supply (except Class VIII, COMSEC, and classified maps).

MCC movement control center

MCO movement control officer

MG major general

MMC Materiel Management Center

MOPP mission-oriented protection posture

movement control center a functional center that provides centralized movement management and highway regulation in support of both logistical and tactical transportation requirements.

MP military police

MRO materiel release order

MSB main support battalion

multiservice doctrine *See* JCS Publication 1-02.

NATO North Atlantic Treaty Organization

NBC nuclear, biological, chemical

no number

OPCON operational control

operational stocks *See* JCS Publication 1-02.

PDO property disposal office

POL petroleum, oils, and lubricants

POM program objective memorandum

preplanned airdrop request airdrop requests generated to meet requirements which can be forecast or where requirements can be anticipated in advance.

RAOC rear area operations center

rqmts requirements

S3 Operations and Training Officer (US Army)

S4 Supply Officer (US Army)

salv salvage

SF Special Forces

S&S supply and service

SFG special forces group

SOF special operations forces

spt support

standardization agreement *See* JCS Publication 1-02.

strategic airlift the continuous or sustained movement of units, personnel, and materiel in support of all DOD agencies between area commands, between the continental United States and overseas areas, or within an area of command when directed. Strategic airlift resources possess a capability to airland or airdrop troops, supplies, and equipment for augmentation of tactical forces when required.

sup supply

svc service

TAA total Army analysis

TAACOM Theater Army Area Command

tactical airlift that airlift which provides preplanned or immediate air movement and delivery of combat troops and supplies directly into objective areas through airlanding, extraction, airdrop, or other delivery techniques and the air logistic support of all theater forces, including those engaged in combat operations, to meet specific theater objectives and requirements.

TAMCA theater army materiel control agent

TAMMC Theater Army Materiel Management Center

TDA tables of distribution and allowances

Theater Army Area Command a major subordinate command of the theater army. It provides direct CSS, less movement control and line-haul transportation, to units located in or passing through its assigned area. It supports the corps with specified logistics support and the overall theater supply system with maintenance in support of the supply system. It is responsible for rear operations within its assigned area.

Theater Army Movement Control Agency US theater army organization responsible for coordinating and administering transportation policy. The functional element under the theater army movement control agency for movement control is the theater army movement control center.

throughput distribution term used to describe shipments that bypass intermediate activities in the supply system, thereby avoiding multiple handling.

TO technical order

TOC tactical operations center

TOE table(s) of organization and equipment

total Army analysis a process that translates gross allocation of force structure into detailed elements of force content. It identifies the numbers and types of units to be fielded over the POM years.

TRADOC United States Army Training and Doctrine Command

trans transportation

trk truck

US United States

war reserves *See* JCS Publication 1-02.

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