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# FM 1-5

DEPARTMENT OF THE ARMY FIELD MANUAL

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# AVIATION COMPANY



HEADQUARTERS, DEPARTMENT OF THE ARMY  
MAY 1966

CHANGE }  
No. 1 }

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 14 May 1968

AVIATION COMPANY

FM 1-5, 26 May 1966, is changed as follows:

1. Remove old pages and insert new pages as indicated below:

✓ 6-5 through 6-10 *Remove pages* ----- *Insert pages* 6-5 through 6-9.

2. Paragraphs that have been added or changed are indicated by a star.
3. This transmittal sheet should be filed in the front of the manual for reference purposes.

By Order of the Secretary of the Army:

HAROLD K. JOHNSON,  
*General, United States Army,*  
*Chief of Staff.*

Official:

KENNETH G. WICKHAM,  
*Major General, United States Army,*  
*The Adjutant General.*

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FIELD MANUAL

No. 1-5

HEADQUARTERS  
DEPARTMENT OF THE ARMY  
WASHINGTON, D.C., 26 May 1966**AVIATION COMPANY**

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\*This manual supersedes FM 1-5, 29 May 1959, including C 1, 13 March 1961, C 2, 31 May 1961, C 3, 16 August 1961, C 4, 19 June 1962, C 5, 15 August 1962, and C 6, 20 January 1964.

## CHAPTER 1

### INTRODUCTION

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#### 1-1. Purpose and Scope

*a.* This manual is a guide for commanders and subordinate leaders of Army aviation companies and smaller elements. It provides doctrine and guidance for the operation of the aviation company. It discusses the capabilities, limitations, and internal operations of the company.

*b.* This manual is applicable to all types of aviation companies, divisional and nondivisional. Users who are interested in specific organizations should consult the appropriate tables of organization and equipment (TOE) in conjunction with this manual.

*c.* This manual supplements FM 1-15.

*d.* The material contained in this manual is applicable to all levels of nuclear warfare, conventional warfare, and counterinsurgency.

*e.* Users of this manual are encouraged to submit recommended changes or comments to improve the manual. Comments should be keyed to the specific page, paragraph, and line of text in which the change is recommended. Reasons should be provided for each comment to insure understanding and complete evaluation. Comments should be forwarded directly to the Commanding Officer, United States Army Com-

bat Developments Command Aviation Agency, Fort Rucker, Ala. 36360.

#### 1-2. Mission of the Army Aviation Company

The basic mission of every Army aviation company is to augment the capability of the Army to conduct prompt and sustained combat incident to operations on land. The mission of each aviation company is stated in the appropriate TOE.

#### 1-3. Capabilities and Limitations

*a. Capabilities.* The aviation company is capable of operating throughout the spectrum of warfare. It provides a means of supplementing the land battle functions of intelligence; mobility; firepower; command, control, and communications; and service support. The capabilities of each individual company—based upon the personnel and equipment assigned to the company—are listed in appropriate TOE.

*b. Limitations.* The aviation company has limited ability to defend itself while performing operations. It is further limited by its large requirement for aviation fuel, its sensitivity to adverse weather conditions, and its vulnerability to overpressures caused by nuclear explosion.

## CHAPTER 2

### ORGANIZATIONAL ELEMENTS

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#### 2-1. General

Organizational elements of all types of aviation companies are similar in structure and function. Appropriate TOE contain information on the organization of specific units. FM 1-15 and 1-100 discuss the command relationships and employment of aviation units. The surveillance platoon (airmobile division) is discussed in appendix E.

#### 2-2. Functions of Elements

*a. Company Headquarters.* Responsibilities of the aviation company headquarters include—

- (1) Training and operation of the company.
- (2) Operation of the company mess.
- (3) Company administration.
- (4) Operation of the company aid station when assigned or attached.
- (5) Requisitioning and distribution of supplies.

*b. Operations Element.* Elements which may be assigned to company headquarters, or as separate sections, and representative functions of each include the following:

- (1) *Operations element headquarters.* This headquarters—
  - (a) Establishes and operates the company airfield.
  - (b) Assigns flight missions to company elements.
  - (c) Coordinates flight planning with the element responsible for air traffic regulation in the area of operations.
  - (d) Coordinates flight schedules to insure availability of aircrews and aircraft.
  - (e) Maintains company flight records.

- (f) Assists the commander in conducting the flying safety program.
- (g) Supervises the maintenance of flight crew proficiency and qualifications.
- (h) Conducts liaison with higher headquarters and with other units as required for planning and scheduling purposes.
- (i) Maintains a current file of aeronautical charts and flying regulations.
- (j) Maintains intelligence situation map and locations of friendly bases, outposts, and defended villages in a counterinsurgency situation. This information will be useful when emergency landings are necessary.
- (k) Assists in planning and preparing orders for combat operations, to include airmobile operations.

(2) *Airfield control section.* This section—

- (a) Provides terminal air traffic control at the primary airfield/heliport.
- (b) Installs and operates the company's airfield navigational equipment.

(3) *Communications section.* This section—

- (a) Provides the company with the means for internal and external communications.
- (b) Provides radio, wire, and other communications means to the company.
- (c) Aids in the selection of locations for communications facilities.
- (d) Performs organizational maintenance of assigned communications equipment.

*c. Aircraft Platoon.*

- (1) *Platoon headquarters.* This headquarters—

- (a) Is responsible for the training and operation of the platoon.
  - (b) Coordinates with the operations officer regarding missions assigned to the platoon.
  - (c) Is responsible for providing limited organizational aircraft maintenance.
- (2) *Aircraft sections.* Aircraft sections provide flight crews and aircraft to perform assigned missions.

d. *Service Platoon.*

- (1) *Platoon headquarters.* The platoon headquarters—
- (a) Insures that organizational maintenance is performed on company aircraft, ground vehicles, and self-powered equipment.
  - (b) Establishes maintenance schedules and priorities.
  - (c) Coordinates with supply personnel to assure availability of necessary parts and assemblies.
  - (d) Supervises training of personnel assigned to the platoon.
  - (e) Performs technical inspections of aircraft and ground vehicles undergoing maintenance to accomplish quality control functions including maintenance of records.
  - (f) Coordinates with the battalion

maintenance officer in the scheduling of aircraft into the direct support facility. For a separate company, this coordination is conducted directly with the direct support unit commander.

- (2) *Aircraft maintenance section.* This section performs organizational maintenance on assigned aircraft beyond the capability of the aircraft crew chief/flight engineer.
- (3) *Automotive maintenance section.* This section performs organizational maintenance, including recovery of vehicles and distribution of petroleum, oils, and lubricants (POL), for the company's automotive and self-powered equipment.
- (4) *Airfield service section.* This section—
- (a) Refuels aircraft at the primary airfield and, by prearrangement, at other locations.
  - (b) Transports bulk fuel to refueling points.
  - (c) Assists in parking aircraft.
  - (d) Provides personnel for ground handling of aircraft and fire guards for starting engines.
  - (e) Provides crash rescue and firefighting services.
  - (f) Maintains unit POL storage facilities.

## CHAPTER 3

### RECONNAISSANCE, SELECTION, AND OCCUPATION OF AIRFIELD AND UNIT POSITION

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#### Section I. GENERAL

#### 3-1. Introduction

The decision to displace the company, based on the requirement for providing responsive aviation support, is usually made by the battalion commander (FM 1-15). The ability to accomplish these moves rapidly and efficiently is essential to the basic requirement that displacements result in arrival of the units concerned at the proper place, at the proper time, and in an effective condition. It is often necessary for the unit to conduct operations from the old position until the new position becomes operational. Standing operating procedures (SOP) covering the reconnaissance, selection, and occupation of position (RSOP) will greatly facilitate displacements. FM 101-5 discusses the purpose and scope of standing operating procedures. FM 1-15 contains a suggested outline for an SOP.

#### 3-2. Company Positions and Landing Zones

*a. Company Position.* The company position is that area occupied by the aviation company. It normally adjoins or surrounds the unit landing area and includes dispersal areas for each element of the company.

*b. Landing Zones.* In the absence of suitable existing facilities, engineer support will be required to construct landing facilities. When this support is not available, the commander will find it necessary to build his own airfield or heliport. TM 5-330 contains details on the

planning and construction of Army airfields and heliports.

#### 3-3. Reconnaissance

Reconnaissance is conducted on a continuing basis to secure advance information regarding suitable areas for use in the event of displacement. This normally begins with map reconnaissance of areas in which future operations are to be conducted or are likely to be conducted. Map reconnaissance of primary and alternate air and ground routes can be conducted in conjunction with map reconnaissance of the new position. General areas and routes selected by map reconnaissance can be evaluated further by aerial reconnaissance. Except under emergency conditions, ground reconnaissance is conducted before final selection is made. Security of the selected site must be assured, first by aerial reconnaissance and subsequently by ground reconnaissance. Aerial and ground reconnaissance can be combined by landing a ground party during the aerial reconnaissance. Under conditions of utmost urgency, an advance party can fly to the general area selected by map reconnaissance, conduct aerial reconnaissance to select the most suitable area, then land and direct the other aircraft of the company as they displace into the selected area. As ground vehicles arrive, they are met by ground personnel at the release point and directed to designated areas.

## Section II. PROCEDURES

### 3-4. General

Procedures covering displacements should be outlined in unit SOP to reduce preparation time and to provide quick response. Items which may be included in the SOP are the composition of reconnaissance and advance parties, loading plans, control measures, rates of march under various conditions, order of march, sequence of vehicles, time interval, density, halt time, security measures, and reporting points. Procedures for each of these items are subject to modification as necessary to conform to the type of occupation planned. The two types of occupation—*hasty* and *deliberate*—are discussed in FM 1-15.

### 3-5. Receipt of Orders

Aviation companies are usually notified of pending displacements by warning orders issued by their battalion headquarters or, in the case of a company attached to or under operational control of another unit, by the headquarters concerned. The warning order is issued as early as practicable to allow the company to begin preparations for the move. It may be followed by fragmentary orders as additional information becomes available. The warning order includes the purpose of the mission to be accomplished, the location of the new area, appropriate routes, required coordination, and, if appropriate, time of issue of more detailed instructions.

### 3-6. Action of the Company Commander and Element Leaders upon Receipt of Warning Orders

Upon receipt of the warning order, the company commander will insure that all elements within his unit are made aware of the pending move. Personnel and equipment designated to take part in the reconnaissance will be organized and prepared to move upon receipt of additional orders. The remainder of the unit should begin preparation for the displacement consistent with the requirements for security and for maintaining an operational posture.

### 3-7. Reconnaissance Party

When the company displacement is part of a battalion operation, the reconnaissance normally will be conducted under battalion control (FM 1-15). Representatives from each company take part in the reconnaissance. If the move affects only the company, the reconnaissance will be organized and controlled by the company commander. The commander designates a general area as the desired location for the airfield or heliport. A map reconnaissance is conducted to select possible sites and air and ground routes to these sites. The reconnaissance party moves by air or ground means to confirm these sites or to select alternate areas if the initial selection is unsuitable. The reconnaissance party also reconnoiters routes to be taken by the main elements of the unit. Ground reconnaissance of the selected site will assist the commander in determining whether additional support, such as engineers or security forces, will be required.

### 3-8. Selection

*a. General.* The company commander, accompanied by communications personnel, one or more representatives from each platoon, and other personnel as necessary, inspects the sites tentatively selected during reconnaissance. Selection of the new position, to include the positions for company installations, is performed by the company commander. He consults with the communications personnel regarding locations for communications facilities. He formulates plans for occupation of the position as he performs this reconnaissance of the new area. After completing the reconnaissance, the commander issues orders for the occupation of the position.

*b. Actions Prior To Arrival of the Company.* The effect of changing weather conditions in the area must be considered. Consideration must be given to the concealment or camouflage of installations from aerial observers. Protection against ground attack must be considered at all times. Maximum preparation will assist

in assuring an orderly dispersal of the main elements of the company. This preparation normally includes—

- (1) Selection and marking of airfield/heliport with panels or lights as needed.
- (2) Selection of the site for each element of the company and indication by signs or markings.
- (3) Checking and marking of routes from the vehicle release point to each location to decrease vehicle congestion.
- (4) Selection of aircraft and vehicle parking areas.
- (5) Selection of initial defensive position and security posts.
- (6) Selection of initial automatic weapons sites.
- (7) Selection of Redeye sites.
- (8) Selection of air defense artillery sites.

### 3-9. Displacement of the Company

*a. General.* When essential arrangements have been accomplished by the advance party, orders are issued for the movement of the remainder of the company.

*b. Organization.* Company elements are organized into aerial flights and march units in preparation for displacement to the new area. These organizations should be indicated in the unit SOP, thus requiring only that changes to the SOP be brought out in movement orders.

*c. Aerial Movement.* Aircraft may be displaced to the new position by company, platoon, section, or single aircraft.

- (1) *Company method.* The company method expedites movement of organic aircraft and facilitates command and control. It enables the company commander to move all of his aircraft, except those on mission assignments, to the new location at one time. This method requires that the new position be manned and developed to facilitate the handling of a large amount of air traffic in a short

period of time, including parking and servicing.

- (2) *Platoon (or section) method.* The platoon method permits greater flexibility than the company method. It enables the company commander to displace his unit on a much smaller scale and to remain operational throughout the displacement. Control is exercised through the platoon or section commanders. Also, the new position need not be manned and developed to the degree required for the company method of displacement. This method facilitates parking, servicing, and preparation for future missions.
- (3) *Single aircraft.* The single aircraft method, although the easiest to employ, takes longer to execute. Control is passed from the company commander and platoon leaders to the individual aviator. The problems associated with aircraft landing, parking, and servicing are greatly reduced by use of this method.

*d. Ground Movement.* Ground vehicles of the company normally are formed into an advance party, a main body, and a trail party. The trail party consists of medical and maintenance elements and necessary personnel and equipment to close out the old position. Each group is organized to insure adequate control for the march. Communications are provided for lead and rear vehicles. Security for the movement is planned to provide warning and defense against ground and air attack. Observation aircraft may be used to assist in the control and movement of the ground column. FM 55-35 contains details on the planning and execution of motor marches.

### 3-10. Occupation of Position

*a. General.* Movement plans, supplemented by unit SOP, will allow aviation companies to occupy a position with the least amount of delay and confusion.

*b. Arrival of the Motor Element.* Motor

vehicles should be met at the release point by representatives of each section of the company. This will provide guides and allow the motor column to move quickly into the area and into position.

*c. Arrival of the Aircraft Element.* Aircraft will receive landing instructions at the designated aerial release point prior to landing. Guides should be provided for aircraft to permit the landing area to be cleared as quickly as possible.

*d. Night Occupation.* Night occupation by an aviation unit requires increased preparation and detailed planning. Additional personnel are required to accompany the advance party to insure adequate preparation and provide guides. Landing areas must be completely organized and checked prior to darkness. Routes must be checked and guides furnished to lead each aircraft and vehicle to its assigned parking area. Radio and wire communications are used to facilitate the occupation.

### Section III. ORGANIZATION OF AIRFIELD AND UNIT POSITION

#### 3-11. General

Organization of the airfield and unit position starts upon arrival of the first element in the new area.

#### 3-12. Command Post and Mess Area

The command post and mess may be collocated or in separate areas. They must be readily accessible to personnel using the facilities. Sufficient space must be provided for dispersion—including cover and concealment—for personnel, equipment, and installations.

#### 3-13. Airfield Markings

Usable limits of the landing area are marked with panels, lights, flags, or other devices. These normally are displayed only for arriving and departing aircraft. At all other times, field marking devices should be concealed or removed. Markings may be discontinued after using personnel have thoroughly familiarized themselves with the operating area. However, markings will be required for night operations and for transient personnel who are unfamiliar with the landing area. Wind direction is indicated in a manner clearly visible to flight crews. All obstructions to landing or ground movement of aircraft are clearly indicated. FM 21-60 contains details on airfield markings.

#### 3-14. Aircraft Parking Areas

Parking areas are established near the airfield to provide dispersion and concealment of aircraft with minimum ground movement. These areas are located to take advantage of favorable terrain features observed during the reconnaissance. Provisions are made to facilitate aircraft refueling and the performance of minor maintenance.

#### 3-15. Maintenance Areas

Maintenance areas must be readily accessible to aircraft and motor vehicles, and must afford adequate space and concealment for maintenance operations and facilities. Most organizational maintenance of company aircraft and vehicles, except minor maintenance or refueling functions, is performed in the maintenance areas.

#### 3-16. Refueling Facilities

POL storage facilities are dispersed and concealed in areas away from aircraft parking areas to minimize aircraft damage from POL fires. The storage locations should provide easy access to refueling vehicles; however, routes from the storage location to aircraft parking areas must be concealed to prevent aerial observation of tracks. Organic motor vehicles are driven to refueling points. TM 10-1101 gives detailed information on aviation petroleum handling operations.

## CHAPTER 4

### SECURITY OF THE AIRFIELD AND UNIT POSITION

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#### Section I. GENERAL

##### 4-1. Introduction

The aviation company is relatively incapable of defending itself against enemy attack while performing its mission of providing aviation support to other Army units. Although personnel of the company are trained to fight as infantrymen, they cannot perform their regular duties, such as aircraft maintenance, while participating in the defense of the airfield or the unit position. For this reason, the supported combat unit normally should provide a perimeter defense or a security force for the airfield and unit position. When such security is not provided, the company commander must request additional security elements through his battalion headquarters or from the unit which he is supporting, and prepare emergency plans to employ company personnel in security and defensive positions.

##### 4-2. General Plan

The commander of the unit occupying the airfield is responsible for the local security of the airfield and unit position. When two or more units use the same airfield, the senior commander is responsible. The commander designates an officer—normally the executive officer—as the company local security officer. The local security officer, usually assisted by the first sergeant, prepares a detailed plan of local defense. The plan includes provisions for indoctrinating personnel in the fundamentals of defense, and training them in use of active and passive defense measures. The local defense plan is coordinated with adjacent units and higher headquarters for adaptation to the area defense plan.

##### 4-3. Passive Defense Measures

Passive defense normally is the primary

method of protecting an airfield. It is based on dispersion, cover, and concealment of personnel and equipment. Dispersal areas with revetments, if necessary, are established for the parking of aircraft. Maximum use is made of natural terrain features such as hills and wooded areas to provide cover and concealment to personnel, aircraft, ground vehicles, and other equipment. Camouflage is used to conceal aircraft and other easily identified objects from enemy observers. Signal panels and lights are displayed only when in actual use; they are concealed or extinguished at other times. Other passive defense measures to be considered include the use of listening posts, personnel bunkers, barbed wire, mines, warning devices, and weapons discipline. The effectiveness of passive defense measures should be checked by aerial reconnaissance.

##### 4-4. Active Defense Measures

*a.* Active defense measures are necessary to repulse an enemy attack on the company position. The general plan for security of the position should delineate duties and responsibilities of company personnel in conducting the defense. The aviation company must be augmented by security personnel in order to maintain its operational capability when located in an insecure area.

*b.* Air defense for the company should be provided by higher headquarters. Provision should be made for supporting air defense units with organic weapons, primarily automatic weapons which are capable of delivering large volumes of direct fire.

*c.* Active defense measures include having armed rotary wing aircraft become airborne as

soon as possible to provide aerial reconnaissance and fire support in defense of the company position.

#### 4-5. Deception

Techniques of deception should be used to the maximum degree practicable to give the enemy a false impression of the company's

location and activities. Aviators may use deceptive techniques such as descending from flight altitudes while over dummy airfields, then flying near treetop level from the dummy airfield to the operating airfield. Similar techniques may be used after takeoff from the operating airfield to give the impression that the takeoff was made from the dummy airfield.

## Section II. TYPES OF ATTACK

#### 4-6. General

In addition to air attacks, Army airfields are subject to enemy artillery and mortar fire as well as all types of enemy ground attacks, to include those carried out by infiltrating parties or by enemy forces conducting guerrilla warfare in the rear area. The aviation company must be prepared to defend itself against attack by using predetermined defense plans which can be modified to suit the situation. During daylight hours, the defensive perimeter should extend outward far enough to minimize effects of enemy small arms fire. At night the perimeter normally will be tightened to provide better defense against infiltration by having less distance between individual positions and greater density of defensive fires. The most important factors for consideration include accomplishment of the mission and protection of the aircraft which will be used to accomplish the mission. In this regard, planning will include procedures for use of predesignated alternate airfields in displacing aircraft to prevent their destruction by either ground or air attack.

should be used simultaneously to set up a barrage fire for maximum effectiveness against enemy aircraft. Defensive measures against mortar attack—especially in a counterinsurgency operational environment—include aerial reconnaissance, extensive patrolling out to and beyond mortar range of the airfield, physical occupation of a defensive perimeter which will place aircraft beyond mortar range, and countermortar and artillery fires.

#### 4-8. Infiltration

Small bands of infiltrators may attempt a hit-and-run mission to destroy a single aircraft, the refueling point, or some other vital installation on the airfield. Such attacks usually occur at night or during periods of poor visibility and may precede an attack in strength. Company personnel should use small arms and grenades to disorganize and repel the attack, preferably without disclosing the positions of automatic weapons or aircraft. The reserve of the airfield security force should not be committed against such an attack until it has been determined that a serious threat to the airfield exists.

#### 4-7. Air and Artillery Attacks

The aviation unit and airfield are susceptible to air, artillery, and mortar attack and have only a limited capability for defense against these attacks. Revetments dispersed around the airfield greatly reduce the possibility that a single hit will destroy a large number of aircraft. To avoid attracting attention, the unit should bring hostile aircraft under fire only if they actually attack the airfield. When defensive fire is employed, all available weapons

#### 4-9. Attacks in Strength

Attacks by strong forces may occur. When an attack occurs in any sector around the perimeter of the airfield, the entire company is alerted and the defense plan for the airfield or position is implemented. Outposts remain hidden as long as possible to observe and to report enemy movements. When the enemy reaches a designated point, the outposts open fire to delay and to disorganize the attack. Automatic weapons open fire when the enemy is

within effective range. Riflemen fire from the perimeter. If available, armed aircraft are used against the enemy force. The security force reserve is employed to reinforce the most threatened area and to eject any force which penetrates the perimeter.

#### **4-10. Chemical, Biological, Radiological (CBR), and Nuclear Attacks**

The unit must be alert to indications that

the enemy has used a toxic chemical agent, a biological agent, or a nuclear weapon. An alarm system must be set up to alert personnel in the event of CBR/nuclear attack. Instructions to be followed by personnel subject to such attack should be contained in the unit SOP and the plan of defense. FM 21-40 contains procedures for unit defense against CBR and nuclear attacks.

## CHAPTER 5

### COMBAT SERVICE SUPPORT FOR THE AVIATION COMPANY

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#### Section I. DIVISION SUPPORT COMMAND

##### 5-1. General

A divisional aviation company receives combat service support from direct support elements of the division support command. FM 54-2 contains details on the operations of the division support command, and FM 1-15 discusses the relationship between the division support command and the divisional aviation battalion.

##### 5-2. Supply

Most supplies are furnished to divisional aviation companies by the supply and transport battalion of the division support command. Exceptions are repair parts provided by the medical battalion, cryptographic supplies provided by the signal battalion, and electrical accounting supplies provided by the division administration company. The supply and transport battalion normally use a combination supply point and unit distribution system. Ammunition is picked up by company vehicles from field army support command (FASCOM) ammunition supply points (except in the airborne division, which operates mobile ammunition distribution points in the division support area).

##### 5-3. Direct Support Maintenance

Direct support maintenance and repair parts support for items of equipment utilized by the divisional aviation company are provided by supporting elements of the division maintenance battalion (FM 9-30). This support includes such items as aircraft, vehicles, communications/electronics equipment, photographic equipment, armament, generators, heaters, food service equipment, and CBR protection and detecting equipment. Additionally, the maintenance battalion direct support includes technical assistance, evacuation support, and assistance in the performance of organizational maintenance when such maintenance exceeds the workload capacity of the aviation company. Details on direct support organization, functions, and responsibilities within the division area are contained in FM 9-30 and FM 10-50. Items excluded from the support mission of the division maintenance battalion are furnished as follows: Cryptographic items by the division signal battalion, medical items by the division medical battalion, electronic accounting equipment by the division administration company, clothing and light textiles by the supply and transport battalion.

#### Section II. FIELD ARMY

##### 5-4. General

An aviation company assigned at corps or field army level (nondivisional) receives combat service support from elements of the field army. FASCOM provides the bulk of this service through its support brigades and field army-wide service organizations. Each brigade is responsible for providing support to units

operating in a specific area, and each army-wide organization provides a major service throughout the field army area. The field army replacement system (FARS) provides replacements as an army-wide service. In a counterinsurgency operational environment containing no FASCOM organization, combat service support may be provided by a provisional support

group or command to divisional and nondivisional aviation companies, FM 54-3 and FM 54-4 discuss the functions of FASCOM elements.

### 5-5. Support Brigades

There is a support brigade for each corps and for the army service area. Units of each brigade have the mission of providing combat service support to designated troops and units, less supplies and services furnished by the army-wide service organizations.

### 5-6. Army-Wide Service Organizations

Following is a brief discussion of the functions of the army-wide service organizations and of the FARS:

*a. Ammunition Brigade.* The ammunition brigade establishes and operates field army ammunition supply points at locations convenient to supported divisional and nondivisional units.

*b. Medical Brigade.* The medical brigade provides medical support to nondivisional units operating in the field army area, and also provides field army treatment facilities and evacuation in support of divisional units.

*c. Transportation Brigade.* Trucks and aircraft of the transportation brigade provide movement, to include the movement of personnel, equipment, and supplies, in corps areas and in the army service area.

*d. Military Police Brigade.* Elements of the military police brigade provide normal military police support to each corps area and to units in the army service area. This brigade may provide some support to the divisions.

*e. Civil Affairs Group.* The civil affairs organization performs its functions in support of corps areas and the army service area. Civil affairs activities in the combat zone are primarily concerned with those matters that have the most impact on the tactical situation. These include measures to—

- (1) Control the civil populace, displaced persons, and refugees.
- (2) Locate and take control of civilian resources required for military operations.

(3) Insure close liaison between tactical units and local authorities.

*f. Field Army Replacement System.* The FARS normally is under operational control of the field army adjutant general who coordinates the accounting for, and assignment of, all field army replacements. These replacements may be assigned directly to requiring units. FARS units are assigned to FASCOM to receive, process, house, feed, and provide limited training as necessary to individuals who are not moved directly to the unit of assignment.

### 5-7. Direct Support

The nondivisional aviation company receives most of its required direct support from appropriate elements of the direct support group. The supply and services battalion of the group provides food, POL, clothing and other light textile items, and initial and replacement issue end items. Other required supply support is provided by elements of the army-wide services and other units (e.g., ammunition is provided by the supporting ammunition company of the ammunition brigade; medical items are provided by the supporting medical facility of the medical brigade; cryptographic items are provided by the headquarters and headquarters company of the general support group; and air delivery items are provided by a quartermaster air delivery company). Also falling within the spectrum of direct support provided by the supply and service battalion are graves registration, laundry and bath services, emergency clothing impregnation, and decontamination of vital areas. The direct support maintenance battalion, in addition to providing repair parts support, provides direct support maintenance, technical assistance, and evacuation support, and assists in the performance of organizational maintenance when such maintenance exceeds the workload capacity of the aviation company. FM 1-15 discusses the relationship between nondivisional aviation units and direct support elements of FASCOM. Maintenance support in the field army area is discussed in detail in FM 29-22 and FM 55-45; ammunition support is detailed in FM 9-6; supply and services support is covered in FM 29-3.

### Section III. ORGANIZATIONAL MAINTENANCE

#### 5-8. General

Organizational maintenance is primarily preventive maintenance to discover and correct potential mechanical failures before they occur. This category of maintenance is performed on company aircraft and vehicles by crew chiefs or flight engineers, drivers, and personnel of the company maintenance platoon. The service platoon stocks aircraft repair parts and related supplies, independent of normal company supply activities. Organic equipment forms and records are maintained by crew chiefs or flight engineers, drivers, and maintenance personnel in accordance with the provisions of TM 38-750.

#### 5-9. Nondivisional Aviation Company Maintenance Support

The direct support maintenance battalion of the support brigade performs organizational

aircraft and vehicular maintenance beyond the capacity of personnel assigned to the nondivisional aviation company. Elements of this battalion also will provide assistance in performance of organizational maintenance on the type items they support when such maintenance is beyond the capacity of organizational maintenance personnel (FM 29-22).

#### 5-10. Divisional Aviation Company Maintenance Support

The division support command's maintenance battalion is responsible for performing direct support maintenance of aircraft and vehicles of the divisional aviation company. Elements of the battalion also provide assistance in performance of organizational maintenance on the type of items they support when such maintenance is beyond the capacity of the organizational maintenance personnel (FM 9-30).

## CHAPTER 6

### EMPLOYMENT

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#### Section I. GENERAL

##### 6-1. Introduction

The aviation company is employed to support internal Army requirements in the conduct of ground operations. Its use does not duplicate those functions assigned to the U.S. Air Force. Specific functions envisioned as appropriate tasks for Army aviation units are listed below.

*a. Command, Liaison, Courier, and Communications.* This includes aerial wire-laying and aviation to assist in the direction, coordination, and control of Army forces in the field.

*b. Observation, Visual and Photographic Reconnaissance, Fire Adjustment, and Topographical Survey.* This includes aerial observation to amplify and supplement other Army methods of observation for the purpose of locating, verifying and evaluating targets, adjusting fire, terrain study, or obtaining information on enemy forces, complementing that obtained by air reconnaissance agencies of the other services; this includes limited aerial photography incident to these purposes.

*c. Airlift of Army Personnel and Materiel.* Transportation of Army supplies, equipment, personnel, and small units within the Army combat zone in the course of combat and logistical operation. This includes the movement of small units to execute small-scale, air landed operations, the movement of reserves, and the shifting or relocation of small units and individuals within the combat zone as the situation may dictate. It includes expeditious movement of critically needed supplies or equipment, or both, within the combat zone, supplementing the ground transportation system operating within the field army. It does not include the execution of joint airborne operations.

*d. Aeromedical Evacuation.* Aeromedical

evacuation within the Army combat zone to include battlefield pickup of casualties (except those from an airhead or airborne objective area which is supported by Air Force air landed, logistical support), air transport to initial point of treatment and any subsequent moves to hospital facilities within the Army combat zone.

*e. Aerial Fire Support.* This task envisions the delivery of discrete, selective organic fires to augment conventional artillery and close air fire support when required.

##### 6-2. Operational Planning

*a.* A representative from the aviation company should assist the supported unit in developing the aviation portion of the ground tactical plan. He provides technical advice regarding the aviation unit's aircraft capabilities, formations to be used if multiple aircraft are to be used, routes of flight which will best support the operation, and limitations imposed by weather or terrain.

*b.* The company should develop accurate experience data applicable to its own operations. This data, in addition to that contained in FM 101-10 as regards flying hours, maintenance requirements and availability, is useful as a basis for initial planning.

*c.* Specific factors that must be considered in planning include—

- (1) *Mission.* Army aviation support must be integrated into the scheme of maneuver and fire support plan of the supported units.
- (2) *Enemy.* The location, disposition, and capabilities of the enemy—especially air defense units—must be considered.

- (3) *Weather.* Low ceilings and limited visibility restrict air and ground operations. Conversely, these conditions may assist in concealing aviation operations from enemy view.
- (4) *Terrain.* Terrain influences selection of routes, navigation aids, communications means, and landing zones.
- (5) *Availability of aircraft.* The number of aircraft available may influence the commander's decisions regarding objectives, fire support, and tactics used.
- (6) *Vulnerability.* Vulnerability of Army aircraft may be reduced by taking advantage of the principles of surprise, maneuver, and security. Supporting fires delivered by conventional artillery, tactical air, and armed helicopter escort also aid in reducing aircraft vulnerability.
- (7) *Logistical support.* The length and character of an operation determine the amount of logistical support required. Fuel, ammunition, and maintenance are primary considerations.
- (8) *Coordination and control.* Minute coordination with supporting fires, tactical air, and ground units is mandatory. Coordination must allow for flexibility and minimum restrictions should be placed upon the operation.

### 6-3. Aircraft Categories

Aircraft are assigned to the aviation company in accordance with the TOE of each type unit. Aircraft assigned to aviation companies are categorized as—

*a. Observation.* Observation aircraft are used to perform observation, reconnaissance, artillery fire adjustment, as well as command, liaison, and communication missions authorized by AR 95-100.

*b. Surveillance.* Surveillance aircraft are used to perform systematic observation for intelligence purposes by use of visual, electronic, or photographic means (app. E).

*c. Utility/Tactical Transport Aircraft.* Aircraft in this category are used for a variety of tasks including—

- (1) Air delivery of troops and equipment in the combat zone.
- (2) Aeromedical evacuation and air movement of patients.
- (3) Emergency resupply operations.
- (4) Aerial command post.
- (5) When appropriately armed, armed escort of aircraft carrying troops, suppressive fire during airmobile operations and reconnaissance missions.

*d. Medium Transport Aircraft.* These aircraft are used primarily for air movement of troops and equipment in the combat zone and for the movement of supplies from rear area supply points.

*e. Heavy Lift Aircraft.* Heavy lift aircraft are used primarily for the recovery of downed aircraft and other battlefield evacuation, airlift of tactical vehicles across terrain obstacles including inland waterways, moving palletized loads from ship to shore, and for other tasks requiring a heavy lift capability.

## Section II. EMPLOYMENT

### 6-4. Principles

In the employment of Army aviation, three principles to be constantly practiced are *immediate availability, freedom of utilization, and economy of utilization.*

*a.* Immediate availability is achieved by the assignment of aviation units down to brigade

level, plus the flexibility of organization inherent to all aviation units. This flexibility allows the decentralization of aviation elements for combat operations with the units which they are designed to support.

*b.* To gain freedom of utilization, the commander normally is given operational control

of the aviation unit supporting his efforts. Attachments are made below division level only when required by the mission.

c. Although the field army has a large amount of aviation support, there is never enough to satisfy all justifiable demands. Aircraft should not be used when surface means are equally effective. Therefore, economy must be practiced and missions assigned on a priority basis. Proper coordination and control will insure the most effective use of Army aviation.

## 6-5. Command Relationships

Military operations require that certain units, or their elements, be placed in support of other units. The flexibility required for this supporting role demands a common understanding of the relationship of one unit to another. Although basically simple in meaning, these terms when loosely used have often created confusion and misunderstanding between commanders. This has resulted in critical loss of time, or, in extreme cases, has prevented actual delivery of the required support. The following definitions extracted from AR 320-5 will clarify the degree of command and control involved, and the logistical and administrative responsibilities implied by each of the four methods of employment most commonly used. Army aviation normally is employed by attachment, support, or operational control.

a. *Attach (attachment).* The placement of units or personnel in an organization where such placement is relatively temporary. Subject to limitations imposed by the attachment order, the commander of the formation, unit, or organization receiving the attachment will exercise the same degree of command and control thereover as he does over units and persons organic to his command. However, the responsibility for transfer and promotion of personnel normally will be retained by the parent formation, unit, or organization. Attachment binds a unit or a detachment temporarily to a command other than its assigned command. A unit or part of a unit may be detached from its parent command and attached to another unit or command for rations, quarters, supply, administration, training, operations, etc. How-

ever, unless limited by one or more of the foregoing or similar qualifications, attachment implies full responsibility for the unit's supply, administration, training, and operations. Attaching one unit to another gives the gaining commander maximum control of the attached unit, but it also imposes a heavy logistical and administrative burden. In most instances, attachment below brigade level adds a prohibitive burden. Battalion size units normally are not capable of supporting aviation units logistically; also, the small staffs at this level lack the personnel to provide detailed planning and coordination necessary to employ larger aviation units in airmobile operations. In armored units an exception is necessary at times. Armor missions of deep penetrations, exploitation, and pursuit may require that divisional aviation be attached at battalion level. Such operations may prevent the parent aviation unit from furnishing adequate support because of distances involved and speed of the operation. If the degree of control offered by attachment is necessary, but relief of the supported commander's planning and logistical tasks is desired, logistical assistance can be provided for in the operations order, with attachment to become effective at a time and date following completion of the planning phase.

b. *Operational Control.* Those functions of command involving the composition of subordinate forces, the assignment of tasks, the designation of objectives, and the authoritative direction necessary to accomplish the mission. It does not include administration, discipline, internal organization, and unit training except when a subordinate commander requests such assistance. A commander of a joint force exercises logistic coordination or control only to the extent necessary to meet those logistical needs of the command essential to the success of his mission, and to meet any request of a subordinate commander for logistical support. *Operational control* is possibly the most misused and least understood term denoting command relationship. It gives the gaining commander the authority to tailor or group forces and to position subordinate units as he deems necessary. It also provides him the command authority to direct the efforts of these units. It should be

understood that operational control is a flexible term with far reaching implications. This method of control could become quite burdensome or it could free the gaining commander of all administrative or logistical requirements, depending upon the needs of the supporting units.

- (1) Many units, through SOP's, will prescribe their own interpretation of command relationships by adding certain qualifications to fit command desires and needs. Although this practice may be justified among organic units, to benefit from the intent of providing flexible methods where nonorganic units are involved, the supported and supporting units alike must have a mutual understanding of employment terminology. Operational control normally is delegated only to those individuals within a specific technical, administrative, or combat support branch, that have the capability, both professionally and technically, of assuming this responsibility. For example, the division transportation officer normally is not given operational control of nondivisional engineer units in the command. However, it is acceptable for the aviation officer at each level of command to be given operational control over assigned or attached aviation units since he is the best qualified individual in the organization to exercise authority over the aviation effort of the command.
- (2) With full consideration of the operational need and problems involved, it is acceptable for nondivisional aviation to be employed under operational control of combat and combat support units below division level, with control becoming effective at the beginning of the execution phase of an operation. This relieves the supported commander of time-consuming planning, logistical burdens, and administrative problems, and provides for the passage of control at the latest possible

moment. Discretion should be used in delegating operational control to subordinates, and should be based upon the degree of control required and the ability of the gaining unit to effectively exercise this authority.

*c. Support. The action of a force which aids, protects, complements, or sustains another force in accordance with a directive requiring such action. A unit which helps another unit in battle. Aviation, artillery, or naval gunfire may be used as a support for infantry.*

- (1) *Direct support. A mission requiring a force to support another specific force and authorizing it to answer directly the supported force's request for assistance. The supporting unit commander responds directly to the desires of the supported unit commander. When direct support is delegated by higher headquarters to a unit of a subordinate command, the parent unit commander of the unit in support does not have the authority to change or revise the mission or to alter the force structure. This support role provides a direct mission request channel between units, with the supporting unit retaining certain prerogatives. Where aviation units are involved, the aviation unit commander is the final authority on technical and flight aspects of the operational aircraft capabilities, weather contingencies, and suitability of flight routes and landing areas. This authority does not extend to the employment and utilization of supported troops and equipment, or determination of the military worth and tactical soundness of the support being requested. The supported unit commander does not have the authority to position or tailor the supporting aviation unit. Preparation of plans and orders for the aviation portion of an operation, as well as establishing liaison between units, is the responsibility of the supporting aviation unit commander. Command,*

logistical, and administrative responsibilities remain with the parent organization of the unit in support. The distance involved between the unit and its parent organization, existence of definite lines of communications and supply, and the speed of maneuver of the supported force must be considered in assigning a direct support mission to a subordinate.

- ★(2) *General support.* That support which is given the supported force as a whole and not to any particular subdivision thereof. The parent organization of the unit in

general support or the next higher headquarters, whichever is applicable, monitors and establishes priorities on mission requests from supported units, and positions the unit as necessary to accomplish the support requirement. Liaison with supported units is not required unless specified by higher headquarters. Command, logistical, and administrative responsibility rests with the parent organization or next higher headquarters. The commanders involved must rely heavily on cooperation between units for complete success under this relationship.

### Section III. AVIATION COMPANY ORGANIZATIONS

#### ★6-6. General

The TOE of each aviation company states the mission of the unit, and lists the personnel and equipment authorized to enable the company to perform that mission. Some individual units are inherently similar to other units in mission and capability, differing principally in assignment (e.g., at corps or army level). This section includes a discussion of representative aviation units of company size which perform combat support and combat service support tasks primarily by use of aircraft. FM 1-105 discusses the techniques and procedures used in accomplishing the tasks of Army aviation. The TOE titles used in this section reflects the latest approved terminology. These new titles will be incorporated in unit TOE as each TOE is revised.

#### ★6-7. Assault Helicopter Company

*a. Representative Units.* Representative assault helicopter companies are—

- (1) TOE 1-57, Assault Helicopter Company, Aviation Battalion, Airborne Division.
- (2) TOE 1-77, Assault Helicopter Company, Aviation Battalion, Infantry Division, or Separate Assault Helicopter Company.
- (3) TOE 1-158, Assault Helicopter Company, Assault Helicopter Battalion, Airmobile Division.

*b. Mission.* To provide tactical airlift for the movement of troops, supplies, and equipment within the combat zone.

*c. Concept of Employment.* The assault helicopter company is organized and equipped to pro-

vide airlift for the movement of troops, supplies, and equipment across the battlefield. The company is habitually employed in support of operations in the combat zone to support units conducting airmobile operations. The company is usually placed in direct support or under the operational control of the unit to be supported. It normally operates from its own dispersal or assembly area in division rear areas within the perimeter of one of the tactical units of the division reserve. The company has its own support and is capable of being employed for extended periods of time as a separate company. Although it is most effective when employed as a unit, the assault helicopter company may be fragmented if necessary. Platoons employed on independent missions for extended periods depend on the company or supported unit for support.

#### ★6-8. Medium Helicopter Company

*a. Representative Units.* Representative medium helicopter companies are—

- (1) TOE 1-167, Medium Helicopter Company, Medium Helicopter Battalion, Airmobile Division.
- (2) TOE 1-258, Separate Medium Helicopter Company or Medium Helicopter Company Type Aviation Battalion.

*b. Mission.* To provide airlift of troops, supplies, and equipment in combat service support and combat support operations.

*c. Concept of Employment.* The medium helicopter company is capable of independent operations. It habitually operates from its own dispersal or assembly area. The company disperses by pla-

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toon or section within the assembly area, and displaces by echelon. It will normally establish a company heliport with facilities for visual and instrument terminal air traffic control; however, *it can operate from unimproved heliports or landing areas.* The platoons usually establish a platoon area and heliport close enough to the company heliport to facilitate use of company service elements and administrative support. The medium helicopter company provides flexibility, responsiveness, and adaptability for employment in either a combat service support or combat support role. Priority for either logistical or maneuver support requirements will be met by allocation of units as directed by the corps or field army headquarters. Although it can be fragmented into platoon-size elements, the company is most effective when employed as a single unit. Each helicopter platoon, with appropriate organizational maintenance personnel, is capable of being attached to, placed in direct support of, or placed under the operational control of ground units for specific missions. The company is dependent on transportation direct support aircraft maintenance organizations for direct support aircraft maintenance.

### ★6-9. Heavy Helicopter Company, TOE 1-259

*a. Mission.* To provide combat service support airlift for the movement of heavy supplies, vehicles, aircraft and equipment, and, as directed, to provide combat support airlift of combat units and resupply of units engaged in combat operations.

*b. Concept of Employment.* The heavy helicopter company is normally attached to an aviation battalion, and is employed as directed by the battalion commander based on the missions assigned by higher headquarters. The primary mission of the company is to provide airlift for the movement of supplies and equipment. When employed in this role, it normally is allocated to the field army support command (FASCOM). Depending on the policies of the FASCOM commander, missions may be received directly from a transportation movement control team located near the company base of operations. The heavy helicopter company may also be used to augment the tactical airlift capability of the corps and di-

visional aviation companies. Depending upon the tactical mission assigned, it may receive missions from higher headquarters, the support command, or the aviation officer of the supported unit.

### ★6-10. Aerial Weapons Company

*a. Representative Units.* Representative aerial weapons companies are—

- (1) TOE 1-111, Aerial Weapons Company.
- (2) TOE 1-157, Aerial Weapons Company, Assault Helicopter Battalion, Airmobile Division.

*b. Mission.* To provide security for airmobile forces, and to participate in offensive, defensive, and delaying actions as a part of a highly mobile combined arms team.

*c. Concept of Employment.* The aerial weapons company is capable of independent operations; it normally operates from its own dispersal or assembly area. The company is normally employed to support assault helicopter companies during the conduct of airmobile operations. It may also be employed independently to attack enemy-held positions, and as a part of a highly mobile combined arms team in offensive, defensive, and delaying actions. It is organized and equipped to operate as a unit; however, platoon- or section-size fire teams may be tailored to accomplish specific missions. The aerial weapons fire teams escort the assault helicopters and destroy or neutralize sources of ground fire directed at escorted helicopters en route to the objective areas. They also provide suppressive fire as needed during insertion and extraction of airmobile forces in the objective areas.

### ★6-11. Aviation General Support Company

*a. Representative Units.* Representative aviation general support companies are—

- (1) TOE 1-58, Aviation General Support Company, Aviation Battalion, Airborne Division.
- (2) TOE 1-78, Aviation General Support Company, Aviation Battalion, Infantry Division.
- (3) TOE 1-102, Aviation General Support Company, Aviation Group, Airmobile Division.

*b. Mission.* To provide aviation support for the division headquarters, division support command,

and other units without organic aircraft, and to provide limited general support and reinforcement to units with organic aircraft. In the airmobile division, this company is organized with an aerial surveillance platoon which provides sustained, near all-weather, day or night surveillance and acquires combat intelligence and target information.

*c. Concept of Employment.* The aviation general support company and the aviation battalion headquarters and headquarters company establish and operate the division instrumented airfield. The aviation general support company also operates and maintains a heliport adjacent to the division main command post to support the division commander and his staff. This heliport has a day and night capability, but normally is not instrumented. The company contains the personnel and equipment necessary to provide continuous and responsive aviation support to the division. It is capable of providing limited aerial fire support to divisional units and aerial escort and direct fire support for airmobile operations. The company performs its own organizational maintenance and provides its own supply and communications, but depends upon the division administration company for personnel administration. Organization of the sections within the company provides flexible employment to meet operational requirements. Helicopters of the company normally are employed on a mission-type basis. Aircraft employed on a continuous support basis are identified in the division or aviation group operations order. Aircraft not committed and those due maintenance are retained at the base airfield. Appendix E discusses the employment of the surveillance platoon organic to the aviation general support company of the airmobile division.

### ★6-12. Aviation Aerial Surveillance Company, TOE 1-128

*a. Mission.* To provide combat surveillance and target acquisition capabilities to corps and/or division units through the use of organic aircraft and sensory equipment.

*b. Concept of Employment.* The aerial surveillance company performs aerial reconnaissance, surveillance, and target acquisition missions in support of the corps, field army, or separate task force to which it is assigned. It usually operates

as an integral unit at an instrumented airfield within the supported unit's area of operation. It normally will be employed in general support of the corps, with support to subordinate units being provided on a mission basis. Whatever the unit to which assigned, the company normally will be under the operational control of the G2 at that echelon. As principal assistant to the G2, the G2 (Air) directs the surveillance effort through the assignment of specific missions and priorities for accomplishment. A representative of the G2 (Air)—the air reconnaissance liaison officer (ARLO)—is provided to the company to conduct briefings of the aircrews on requirements for missions and debriefing of the crews upon their return. The information obtained is passed to the G2 (Air) and the requesting headquarters. With the exception of aircraft maintenance and supply, the company receives its administrative support from the aviation group headquarters. Aircraft maintenance beyond the capabilities of the company is provided by direct support transportation aircraft maintenance units. Supply of aircraft parts, components, and expendables, and evacuation of non-flyable aircraft are the responsibility of the supporting aircraft maintenance units.

### ★6-13. Aviation Company (Corps and Army)

*a. Representative Units.* Representative aviation companies are—

- (1) TOE 1-127, Aviation Company (Corps).
- (2) TOE 1-137, Aviation Company (Army).

*b. Mission.* To provide the corps or army headquarters and subordinate units with immediately available and responsive aviation support.

*c. Concept of Employment.* The aviation company at corps and field army levels normally will be attached to an aviation group or brigade as appropriate. It may be placed under the operational control of the aviation officer when no appropriate controlling aviation organization is present at that echelon. The company has adequate navigational and lighting equipment to permit operation of a corps/field army instrumented airfield. When extended frontages and multiple command posts preclude operation from the corps/field army instrumented airfield, the company commander will establish another airfield and employ the company in echelon. Each echelon should contain a command element and an adequate number of person-

nel, equipment, and communications to permit sustained operation separate from the remainder of the company. The aviation company is organized on the principle of grouping the aircraft by type and mission. The headquarters and service elements will operate the instrumented airfield and, when feasible, all flight elements should operate from this airfield. However, the flight elements of the company are organized to permit decentralization of operations to satellite landing areas. Minimum communications equipment is authorized to provide continuing company control under decentralized conditions.

**★6-14. Aviation Company, Airborne Special Forces Group, TOE 1-307**

*a. Mission.* To provide the U.S. Army special forces group with immediately available and responsive aviation support.

*b. Concept of Employment.* The special forces aviation company will be employed to support all tactical and strategic operations within its capabilities. The company is organic to a special forces group; however, it also can be employed in support of a special action force, mobile training teams, and other tailored special forces elements. The support provided by this company consists of, but is not limited to, air movement of personnel, supplies, and equipment; evacuation of U.S. and indigenous sick and wounded; dissemination of PSYOP messages utilizing airborne loudspeakers and airdrop of printed material; internal support for elements of a special action force; limited spot aerial photography; extraction of selected personnel from hostile areas by various airborne techniques; aerial fire support to include escort of airmobile columns; introduction and extraction of long-range patrols; and support to other U.S. civilian and military agencies. The personnel of the company can provide training assistance and advice to indigenous forces in the conduct of air movement operations. The company normally operates from an airfield within close proximity to the special forces operational base. Elements of the company may be deployed to outlying bases to improve mission responsiveness and range capabilities; administrative and logistical support for these elements is usually provided from the com-

pany base. The company commander serves as the special forces group aviation officer. The assistant group aviation officer serves as the principal representative of the group aviation officer on the group staff.

**★6-15. Aerial Artillery Battery, Field Artillery Battalion, Aerial Artillery, Airmobile Division, TOE 6-727**

*a. Mission.* To provide aerially mounted rocket direct fire support and to furnish its portion of the battalion communications system.

*b. Concept of Employment.* The aerial artillery battery may be employed as a separate battery, or as a part of the battalion, to provide highly mobile direct fire support and antitank support for ground combat units. Artillery missions assigned to the aerial artillery battery vary with the situation. The aerial artillery battery may be assigned a tactical mission of direct support, reinforcing; general support; general support-reinforcing; or a modified mission. It may also be attached to a brigade or other division unit for separate operations. The aerial artillery battery is not normally employed in the direct support artillery role. The entire aerial artillery battery may be employed on a single mission; however, aerial artillery is generally employed by platoon or section. The smallest element employed against a target is a section consisting of two aircraft. Aerial artillery elements delivering preplanned and on-call fires may provide the only fire support available on far ranging airmobile operations. Normally, however, the aerial artillery fires will be supplementary and coordinated with other fire support. Missions such as providing en route escort for airmobile columns should be held to a minimum since these missions reduce the battery's capability for performing its principal fire support mission. The battery normally operates from position areas within the division or brigade base. It may be positioned in areas near direct support cannon artillery batteries to provide mutual security in position defense. Positions are located sufficiently forward to insure that fire support is responsive to the supported force. Platoon or section firing elements may operate from separate locations in support of task forces for short durations.

## 6-16. Air Cavalry Troop

★*a. Representative Units.* Representative units which perform air cavalry missions are—

- (1) TOE 17-58, Air Cavalry Troop, Armored Cavalry Regiment.
- (2) TOE 17-98, Air Cavalry Troop, Cavalry Squadron, Airmobile Division.
- (3) TOE 17-108, Air Cavalry Troop, Armored Cavalry Squadron, Armored Division, Infantry Division, or Infantry Division (Mechanized).
- (4) TOE 17-408, Separate Air Cavalry Troop.

*b. Mission.* To extend, by aerial means, the reconnaissance and security capabilities of parent or supported units, and to engage in offensive, defensive, or delaying actions. Within its capability, to seize and dominate lightly defended areas or terrain features.

*c. Concept of Employment.* Successful employment of the air cavalry troop is based upon effective use of its characteristics and capabilities and an understanding of its limitations. The air cavalry troop may be employed on various types of tactical missions; however, its primary purpose is to extend the reconnaissance and security capabilities of the parent or supported unit. It may also be employed on independent missions if required. The troop should be employed in close conjunction with ground units so that the capabilities of ground and air elements will complement each other. The air cavalry troop is a combat force with combat elements mounted completely in organic aircraft. The unit combines the characteristics of tactical three-dimensional mobility and highly destructive aerial firepower. The troop operates largely in the ground environment (nap-of-the-earth), which is the airspace extending from the ground to a few feet above the immediate terrain, but generally below the level of the surrounding terrain formations. This provides a relatively high degree of protection from enemy ground and air action. Aircraft are armed with antipersonnel, antimateriel, area, and point fire weapons for destruction and suppression of enemy forces.

## ★6-17. Aerial Ambulance Company, TOE 8-137

*a. Mission.* To provide aeromedical evacuation of selected patients. To provide emergency move-

ment of medical personnel and accompanying equipment and supplies to meet a critical requirement.

*b. Concept of Employment.*

- (1) Aeromedical evacuation within the combat zone is provided by AMEDS units which operate under the overall supervision of the field army surgeon. Normally, direct command of these units is exercised by the medical brigade headquarters of the field army support command.

(a) Support for forces of corps size or larger is furnished by aerial ambulance companies augmented as required by aerial ambulance detachments. To insure maximum flexibility and control, these units normally are assigned an area support mission. This does not preclude the initial assignment in a particular operation of a direct support mission (e.g., support of a specific division) to a subordinate platoon of the company or to a detachment.

(b) Support of brigade- or division-size forces which operate independently may be provided by an aerial ambulance detachment or section thereof. The detachment normally operates under direct control of the surgeon of the independent force. If the force operates at an extended distance from its support base, the attached aerial ambulance unit normally performs intra-force evacuation missions only. This creates an additional requirement for aeromedical evacuation out of the area by the next higher level of medical service.

- (2) Air movement of routine, nonemergency category patients is performed as a secondary mission of AMEDS aerial ambulance units. Also, upon request of the responsible surgeon, such movement may be performed as a contingent mission of a non-AMEDS unit with appropriate type aircraft.

## CHAPTER 7

### COMMUNICATIONS

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#### 7-1. General

*a.* The aviation company is provided sufficient ground and airborne communications equipment to communicate with elements of the company and with units of infantry, armor, mechanized, and airborne divisions being supported. In addition, this equipment may net with aviation elements of other services when required. Appendix B contains aviation company radio and wire communications diagrams. FM 1-15 discusses communications in the aviation battalion.

*b.* The ability to communicate entails responsibility for maintaining communications security to avoid providing information to the enemy on activities of the company and supported units. Company SOP should include guidance for maintaining communications security in the use of all company ground and airborne communications means.

*c.* The company commander is responsible for communications within the company and for company equipment functioning in the next higher unit's communications system. To assist him, the commander appoints an officer to serve as the company communications officer.

*d.* The means of communications available to the aviation company are wire, radio, messenger, visual, and sound. The composition of the means in each aviation company is limited by the personnel, equipment, and transportation provided by the TOE or by higher headquarters. The various means have different capabilities and limitations. They are used to supplement each other, and entire dependence is not placed on any one means. The reliability of a communications system is greatly increased by the appropriate use of all available means. The means used most in a given situation is the one that provides maximum reliability, flexibility,

security, and speed with a minimum of effort and materiel.

#### 7-2. Means of Communication

The means of communication available to the aviation company are discussed below:

*a. Wire.* Wire provides an important means of communications down to and within the operating elements of the company. It includes the use of field wire, wire-laying and recovery equipment, battery operated telephones, switchboards, teletypewriters, and associated equipment. Security is never assured when transmitting on wire in the clear. The decision to establish wire communications depends upon the need and the time available to install and use it. Switchboards increase the flexibility of wire systems and reduce the number of lines needed. Party lines expand the subscriber capacity of the switchboard(s) in the company. Teletypewriter service is used primarily for communications regarding air traffic regulation and meteorological information. The volume and nature of this information are such that written form (hard copy) is required for dissemination to the multiple users within the company.

*b. Radio.* Voice radio is the primary means of communications used for air-to-air communications between aircraft and for air-to-ground communications with the aviation company, air traffic regulation facilities, and supported ground units. All aircraft are provided radios for air-to-air and air-to-ground voice communications. The company commander, platoon leaders, and some section leaders are provided vehicular-mounted radios for internal communications. Additional radios are provided for essential functional elements of the company such as the operations platoon. Radio communi-

cations are less vulnerable to enemy fire than wire, but are subject to interference from static, jamming, and other radio stations. Radio communications are the least secure means of communications. It must be assumed that interception takes place every time a radio transmitter is placed in operation; therefore, appropriate security measures must be taken to avoid providing information to the enemy. Wire communications normally should be used when both wire and radio communications means are available.

### 7-3. Communications Orders and Instructions

The communications officer provides technical coordination and control of all communications employed by elements of the company. Signal operation instructions (SOI) or standing signal instructions (SSI) are primarily technical in nature.

*a. SOI.* SOI are a series of orders issued for technical control and coordination of the signal communications activities of a command. Each order of the series usually remains in effect for a short period of time until superseded by a new edition of the same order. In a division or separate brigade, instructions published in the SOI are prepared in such detail that it is not necessary for subordinate commanders to prepare SOI for their own use. When required, extracts from the SOI are prepared for company use. Each portion of the SOI is classified according to its content, as prescribed by AR 380-5. The assembled SOI is assigned the same classification as its most highly classified item. SOI contain information of particular value to the enemy; therefore, they should not be taken aloft or forward of the command post (aviation company operations). Compromise of any portion of an SOI must be reported immediately so that portion of the SOI can be replaced.

*b. SSI.* SSI contain instructions necessary for the operation of signal communications equipment, agencies, and means. Instructions for use of data in the SOI are contained in the SSI. Information in the SSI is not subject to frequent change. These instructions are required for the employment of signal communications throughout the issuing command. They include explanations of the various procedures to be followed when individual items of the SOI are used. SSI and SOI items pertaining to the same subject will be assigned the same security classifications.

### 7-4. Personnel and Equipment

Divisional aviation companies are not organized with all communications personnel in one platoon or section. Some separate aviation companies, however, do have communications sections or platoons which contain all company communications personnel. TOE show the distribution of enlisted specialists and equipment provided to meet these requirements.

### 7-5. Communications Security

Communications security measures are designed to prevent or delay acquisition of information of military value from communications sources by unauthorized persons. The three elements of communications security are physical, cryptographic, and transmission security. The maintenance of communications security is a command function. All personnel, particularly those who transmit radio messages, must be cognizant of communications security. The commander establishes communications security measures by stating general principles in the unit SOP; by announcing, prior to an operation, the extent to which security is to be practiced; and by making security checks during an operation. Messages that might compromise the plans, operations, or cryptographic systems of other units are never transmitted in the clear.

## CHAPTER 8

### TRAINING

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#### Section I. GENERAL

##### 8-1. Introduction

The company is the basic unit for aviation training. The broad training principles and policies to be followed by the company commander are set forth in AR 350-5. FM 21-5 contains information on Army training programs, Army subject schedules, training circulars, Army training tests, training directives, and other publications used in training the company. FM 21-6 discusses the techniques of military instruction. The company commander conducts that part of the battalion or higher unit training program (FM 1-15) which applies to his unit, to include on the job training. Army service schools should be utilized to the maximum degree to train aircraft maintenance and other personnel.

##### 8-2. Objective of Training

The objective of training conducted in the company is to provide a unit capable of performing its combat mission. Most of the personnel assigned to an aviation company have received prior training in Army service schools or similar activities. These individuals are trained in the company to further develop their skills and adapt those skills to requirements of the unit, to develop new skills, and to enable them to combine their skills with those of other individuals to accomplish the mission of the company.

##### 8-3. Basic Concepts of Training

The basic concepts of military training (FM 21-5) which apply to the training conducted by the Army aviation company include the following:

- a. The company commander is responsible for training his unit.
- b. The applicatory system of training most effectively meets the needs of military training.
- c. Skills are acquired through supervised practice.
- d. Training progresses from basic to advanced subjects.
- e. Training progresses from individual to unit training.

##### 8-4. Instructor Selection and Training

a. *Instructor Selection.* The company seldom will contain an adequate number of trained instructors. When a shortage exists, personnel must be selected and trained to perform as instructors for each type of training, considering the special knowledge and experience requirements for each type of training. The two most important characteristics to consider in selecting instructor trainees are personality and previous experience, preferably including experience in required subjects and technique of military instruction. An individual who has performed a particular function over a long period of time is not necessarily a competent instructor in his specialty. FM 21-6 contains details on the selection of military instructors.

b. *Instructor Training.* The success of the training program will depend largely upon the quality of the instruction presented by the instructor. One or more instructors may be sent to service schools for training. Refresher courses can be conducted in the company for instructors requiring such training. A curricu-

lum should be obtained or developed to cover all training to be conducted. An outline should be prepared for each course included in the

curriculum and used as a basis for the instructor training program. FM 21-6 contains details on instructor training.

## Section II. THE AVIATION COMPANY TRAINING PROGRAM

### 8-5. General

Training of the aviation company is a continuing process. This training normally is conducted in response to objectives and requirements originating at higher command levels to bring the unit to the required level of operational proficiency and to maintain that level of proficiency. This makes it necessary to consider training replacements for skilled personnel who may be lost by future reassignments as well as increasing the abilities of personnel being trained. Where individual training is required selected personnel may be sent to service schools or to specialist training courses. If this is not practicable, on the job training can be conducted in the company to produce the required individual skills. These skills must be adapted to the specific needs of the company through the company training program.

sizes the training of individuals to function as members of the company. All training should be conducted according to a definite schedule and program. Comprehensive records should be maintained to show what has been accomplished and what remains to be done. Areas in which personnel of the aviation company must be trained are as follows:

*a. Administration.* The first sergeant normally is designated to supervise the training of administrative and clerical personnel assigned to the company headquarters. Although normal operations continue during the training period, this training is conducted according to a definite schedule, and records are maintained to show the progress made by each trainee. This training covers use of approved procedures for preparing records and reports and other duties of company administrative personnel.

### 8-6. Areas of Responsibility

*a.* The company commander closely supervises all phases of the training program to lend his prestige to the program and to insure that it is conducted effectively. The commander and the executive officer must visit classes or other training situations to indicate to instructors and students their interest in the training program. Outstanding trainees are recognized and lagging trainees are counseled to add further emphasis to the training program.

*b. Supply.* The supply sergeant is usually designated to conduct the training of the company's supply personnel. This training is conducted concurrently with normal supply functions of the company. It includes instructions in, and the practical application of, procedures relating to supply directives and regulations; supply records; property books; and the receipt, storage, and issue of supplies.

*b.* The commander designates an individual to serve as the company training officer. The training officer develops and submits to the company commander a training plan which conforms to the battalion training plan and which meets training requirements of the company. The training plan should provide for optimum use of facilities for specialist training provided by higher headquarters.

*c. Mess.* The training officer, in coordination with the company mess officer, usually assigns responsibility to the mess steward for the conduct of most of the training of the company's mess personnel. Although most of the cooks may have received school training, it may be necessary to conduct a refresher course or to conduct training in mess operations in varying operational situations, e.g., from a kitchen truck or rail kitchen. A medical aidman may assist by conducting instruction in mess sanitation. Company field exercises offer many opportunities for the field training of mess personnel.

### 8-7. Areas in Which Training Must Be Conducted

Most of the training conducted by the aviation company is unit training which empha-

*d. Motor Pool.* The company training officer,

in coordination with the executive officer and the motor officer, designates the individual who is to conduct the training of motor pool personnel and indoctrinates that individual in his duties relative to the training program. This training may be divided into several courses—often overlapping—covering the duties of dispatchers, drivers, operators, and motor maintenance personnel.

*e. Communications.* The chief of the communications section may be designated to conduct the training of the company's communications personnel. This training includes instruction and supervised practice in communications procedures, equipment operation and maintenance, and communications security. Field exercises provide opportunities for training in communications functions under varying conditions.

*f. Operations.* The operations platoon sergeant may be designated to conduct training of personnel of the operations platoon headquarters. Duties of these personnel include the preparation of flight plans and manifests, the maintenance of flight logs and individual flight records, and the issue of special equipment required for various flights. Consideration should be given to the requirement for a 24-hour capability to perform this function, and training should be conducted to produce that capability.

*g. Aviator Personnel.* Training of aviator personnel is supervised by the operations officer. This training includes that which is necessary to comply with regulations and directives, to maintain pilot proficiency in the types of aircraft in which each individual is required to be qualified, to qualify individuals in new types of aircraft when needed, and to train aviator personnel in the application of procedures prescribed for flight clearances, communications, air traffic regulation, the use of electronic aids to navigation, and the conduct of aerial radiological surveys. Training is also given in survival, escape and evasion, and local flying safety and rescue procedures. As quotas and other circumstances permit, selected personnel are scheduled to attend service schools for further training as required.

*h. Aircraft Maintenance.* The aircraft repair technician and the maintenance platoon ser-

geant normally assist the maintenance officer in training aircraft maintenance personnel of the aviation company. In addition to training these individuals in the maintenance of aircraft currently assigned to the company, consideration must be given to training personnel to maintain new aircraft scheduled for future assignment to the company. This training may be augmented by service schools or specialist training facilities when available.

*i. Airfield Service.* The chief of the airfield service element normally is designated to conduct the training of airfield service personnel. This training covers aircraft fuel handling and the operation of refueling vehicles and equipment. It may include other functions such as the maintenance of airfield lighting devices.

*j. Driver.* The motor sergeant conducts the company's driver training program. This program includes training in vehicle maintenance required of the driver or operator. Driver training beyond the capability of the motor sergeant usually is conducted at battalion level.

*k. Weapons.* Training in use of TOE weapons normally is performed by the best qualified individuals in accordance with the appropriate manual for each weapon. Facilities should be scheduled for use by the company for maintaining small arms qualifications as required by regulations or directives.

*l. Reconnaissance, Selection, and Occupation of Airfield and Bivouac Area.* Training in reconnaissance, selection, and occupation of the airfield and bivouac area provides a realistic opportunity for the aviation company to put into actual practice, on a unit basis, many of the skills which have been developed during training in other subjects. All personnel of the company participate in this operation. They should be required to demonstrate their abilities to perform their individual skills within the unit. Areas which indicate a need for corrective action can provide the basis for future training of company elements.

*m. CBR and Nuclear Defense Training.* Training for defense in these areas normally is conducted by school trained CBR personnel appointed by the company commander as an additional duty.

## APPENDIX A

## REFERENCES

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AR 15-6	Procedures for Investigating Officers and Boards of Officers Conducting Investigations.
AR 15-76	United States Army Board for Aviation Accident Research.
AR 55-10	Military Standard Transportation and Movement Procedure (MIL-STAMP).
AR 95-series	Army Aviation.
AR 220-58	Organization and Training for Chemical, Biological, and Radiological Operations.
AR 310-1	Military Publications—General Policies.
AR 310-3	Publications—Preparation, Coordination, and Approval.
AR 320-5	Dictionary of United States Army Terms.
AR 320-50	Authorized Abbreviations and Brevity Codes.
AR 350-1	Army Training.
AR 350-5	Military Education and Service Schools.
AR 380-5	Safeguarding Defense Information.
AR 385-10	Army Safety Program.
AR 385-40	Accident Reporting and Records.
AR 600-105	Army Aviation Officer Career Program.
AR 600-106	Aeronautical Designations and Flying Status for Army Personnel.
AR 600-107	Medical Restrictions from Flight Duty, Suspensions, Flying Evaluation Boards, and Flight Status Review System.
AR 711-17	Utilization and Processing of DA Forms 2765 and 2765-1, Request for Issue or Turn In (Punched Card Series).
AR 735-35	Supply Procedures for TOE Units, Organizations, and non-TOE Activities.
AR 750-5	Organization, Policies, and Responsibilities for Maintenance Operators.
AR 750-8	Command Maintenance Management Inspections.
SR 95-50-1	Procedures for Aircraft Crash Firefighting and Rescue.
DA PAM 95-5	Aviation Safety Poster.
DA PAM 95-9	U.S. Army Aviation Accident Prevention Pamphlet.
DA PAM 108-1	Index of Army Motion Pictures, Filmstrips, Slides, Tapes, and Phono-Recordings.
DA PAM 310-series	Military Publications Indexes.
DA PAM 750-1	Preventive Maintenance Guide for Commanders.
FM 1-15	Aviation Battalion.
FM 1-60	Army Aviation Air Traffic Operations—Tactical.
FM 1-100	Army Aviation.
FM 1-105	Army Aviation Techniques and Procedures.
FM 3-10	Employment of Chemical and Biological Agents.
FM 3-12	Operational Aspects of Radiological Defense.

**FM 1-5**

FM 8-15	Division Medical Service, Infantry, Airborne, Mechanized, and Armored Division.
FM 9-30	Maintenance Battalion, Division Support Command.
FM 10-50	Supply and Transport Battalion, Division Support Command.
FM 21-5	Military Training Management.
FM 21-6	Techniques of Military Instruction.
FM 21-40	Small Unit Procedures in Chemical, Biological, and Radiological (CBR) Operations.
FM 21-41	Soldier's Handbook for Chemical and Biological Operations, and Nuclear Warfare.
FM 21-48	Chemical, Biological, and Radiological (CBR) Nuclear Defense Training Exercises.
FM 21-60	Visual Signals.
FM 21-76	Survival.
FM 21-77	Evasion and Escape.
FM 29-3	Direct Support Supply and Service in the Field Army.
FM 29-22	Maintenance Operations in the Field Army.
FM 30-5	Combat Intelligence.
FM 30-20	Aerial Surveillance—Reconnaissance, Field Army.
FM 31-16	Counterguerrilla Operations.
FM 31-20	Special Forces Operational Techniques.
FM 31-21	Special Forces Operations.
FM 31-22	U. S. Army Counterinsurgency Forces.
FM 31-73	Advisor Handbook for Counterinsurgency.
FM 54-2	The Division Support Command.
FM 54-3	The Field Army Support Command.
FM 54-4	The Support Brigade.
FM 55-35	Motor Transportation Operations and Motor Transport Units.
FM 55-45	Aircraft Maintenance Services and Units in the Field Army.
FM 57-35	Airmobile Operations.
FM 57-38	Pathfinder Operations.
FM 61-100	The Division.
FM 100-5	Field Service Regulations—Operations.
FM 101-5	Staff Officers' Field Manual; Staff Organization and Procedure.
FM 101-40	Armed Forces Doctrine for Chemical and Biological Weapons Employment and Defense.
TM 3-210	Fallout Prediction.
TM 5-330	Planning, Site Selection, and Design of Roads, Airfields, and Heliports in the Theater of Operations.
TM 10-1101	Petroleum Handling Equipment and Operations.
TM 38-750	Army Equipment Records Procedures.
TM 55-601	Troop Movement Guide.
TM 57-210	Air Movement of Troops and Equipment.

**APPENDIX B**  
**AVIATION COMPANY COMMUNICATIONS DIAGRAMS**

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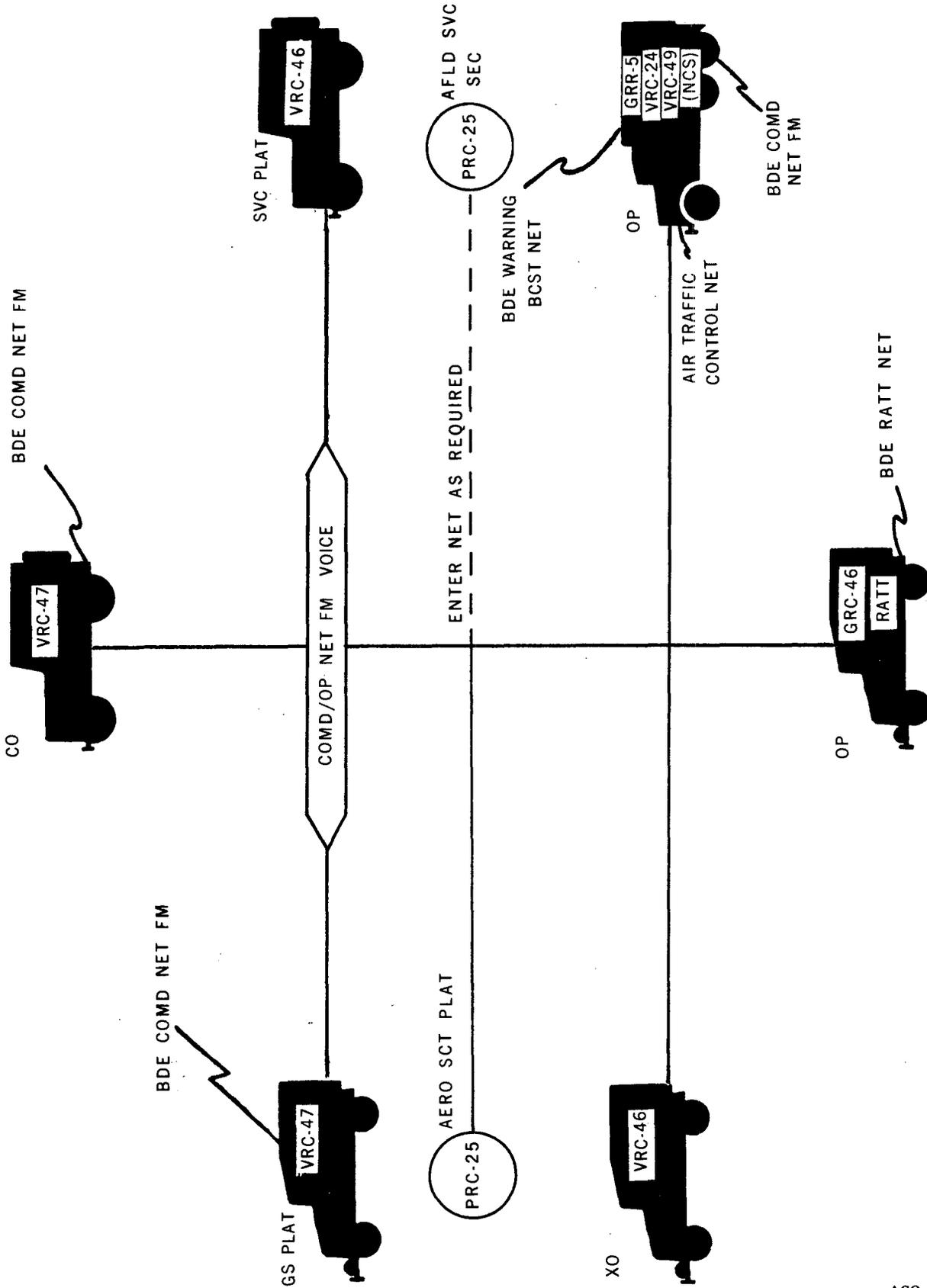


Figure B-1. Type radio net, aviation company, separate brigade (TOE 1-47E).

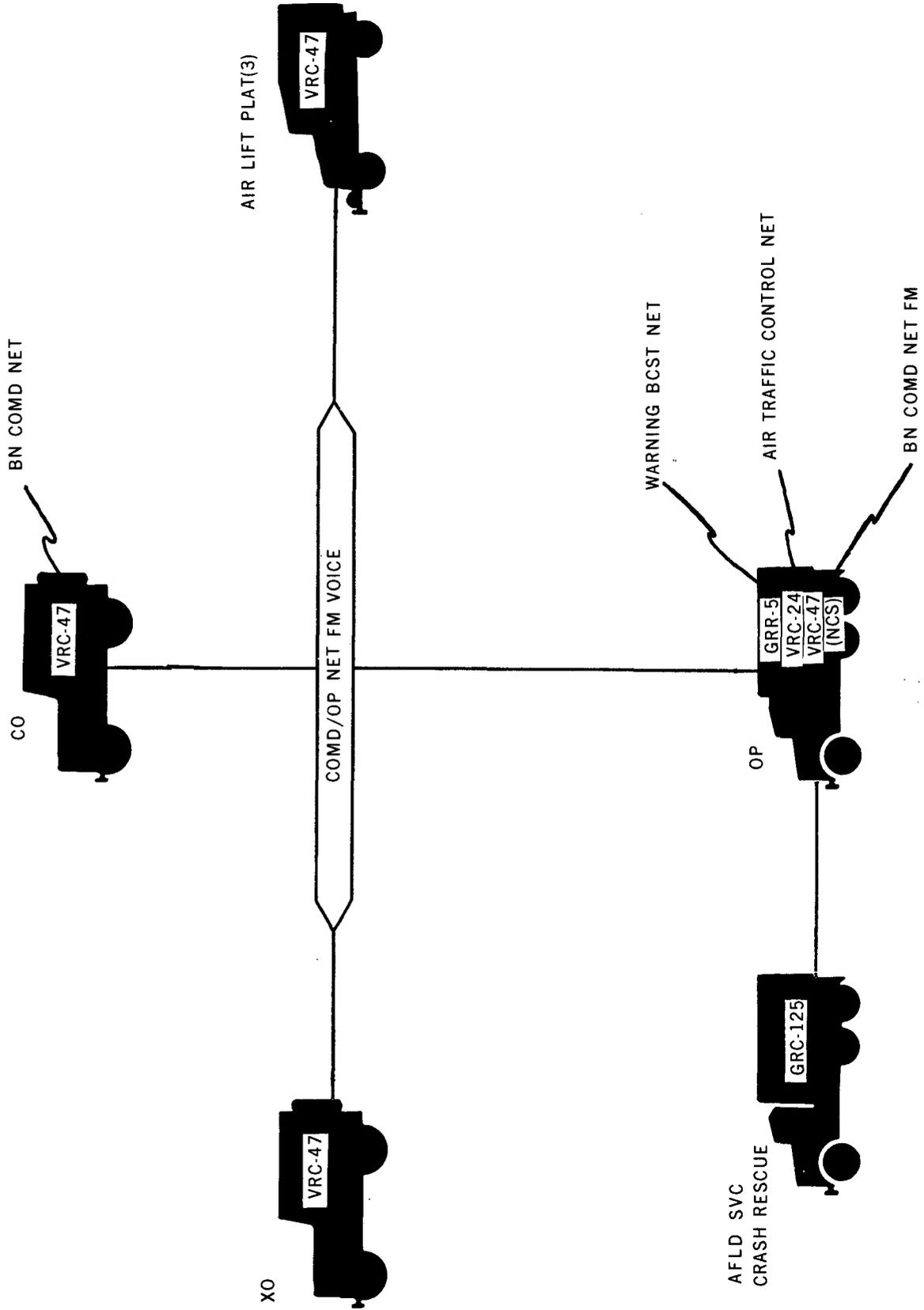


Figure B-2. Type radio net, airmobile company, aviation battalion, airborne division (TOE 1-57E).

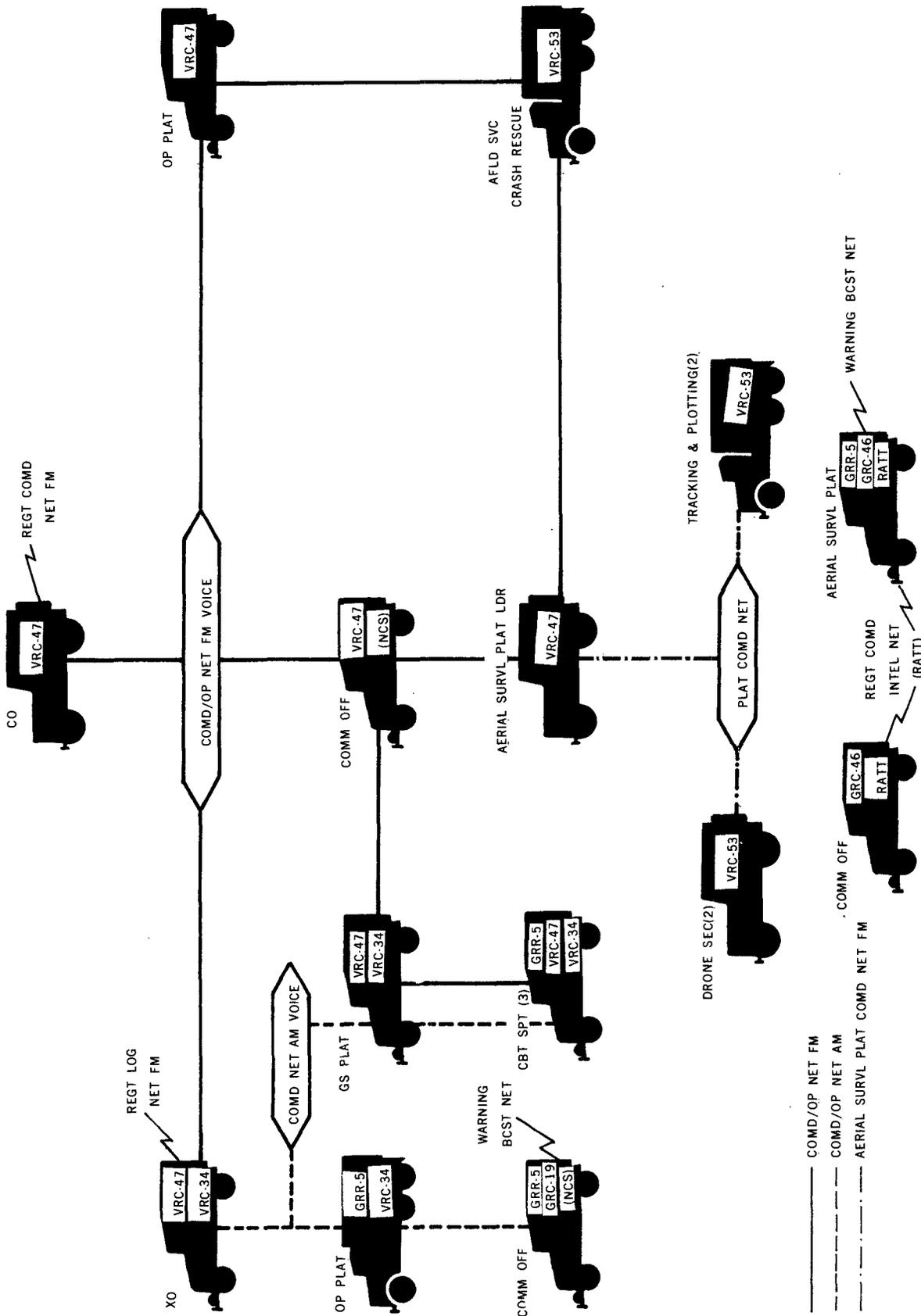


Figure B-8. Type radio net, aviation company, armored cavalry regiment (TOE 1-67D).

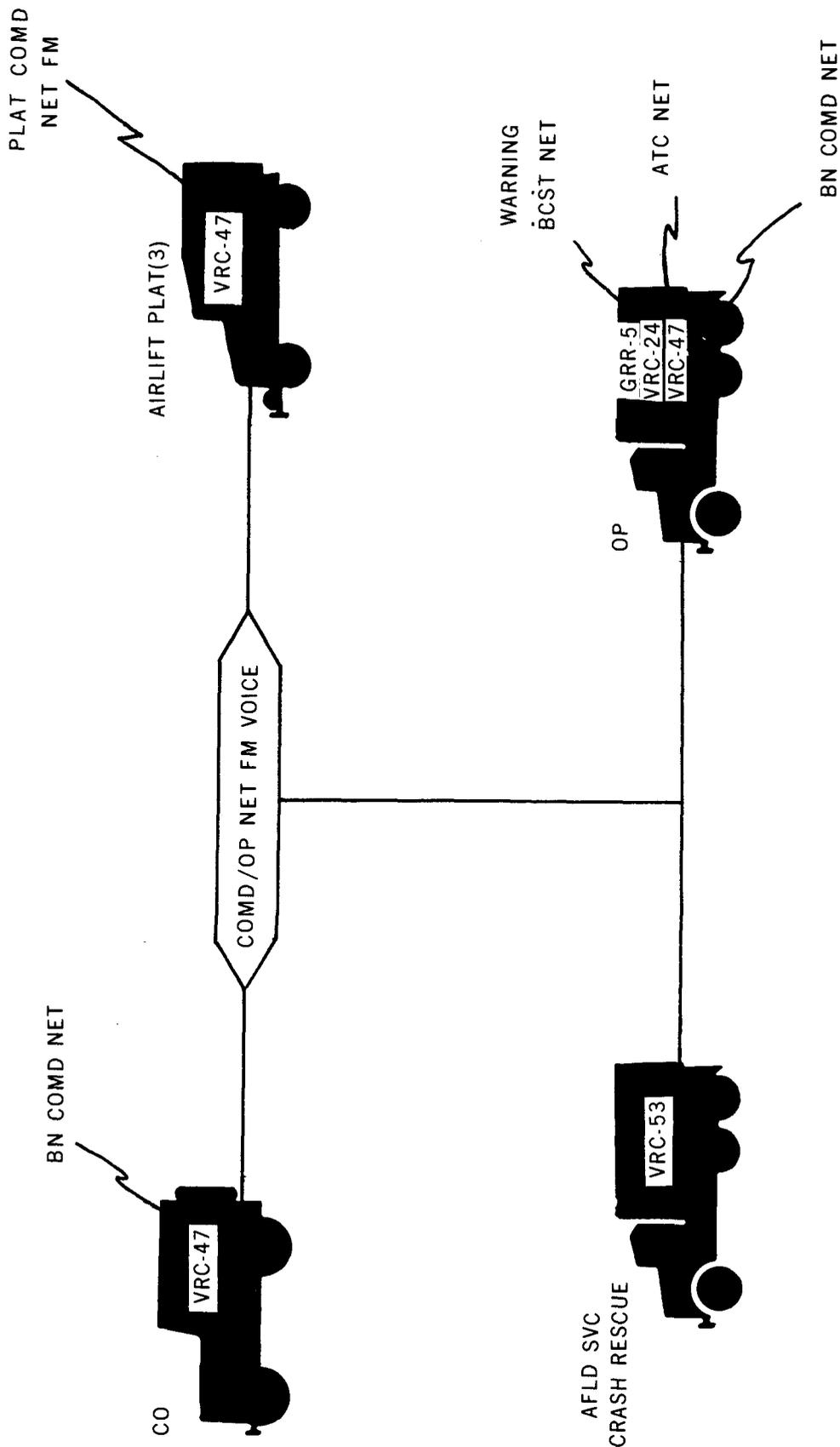


Figure B-4. Type radio net, airmobile company, aviation battalion, infantry, armored, and infantry (mechanized) divisions (TOE 1-77E).

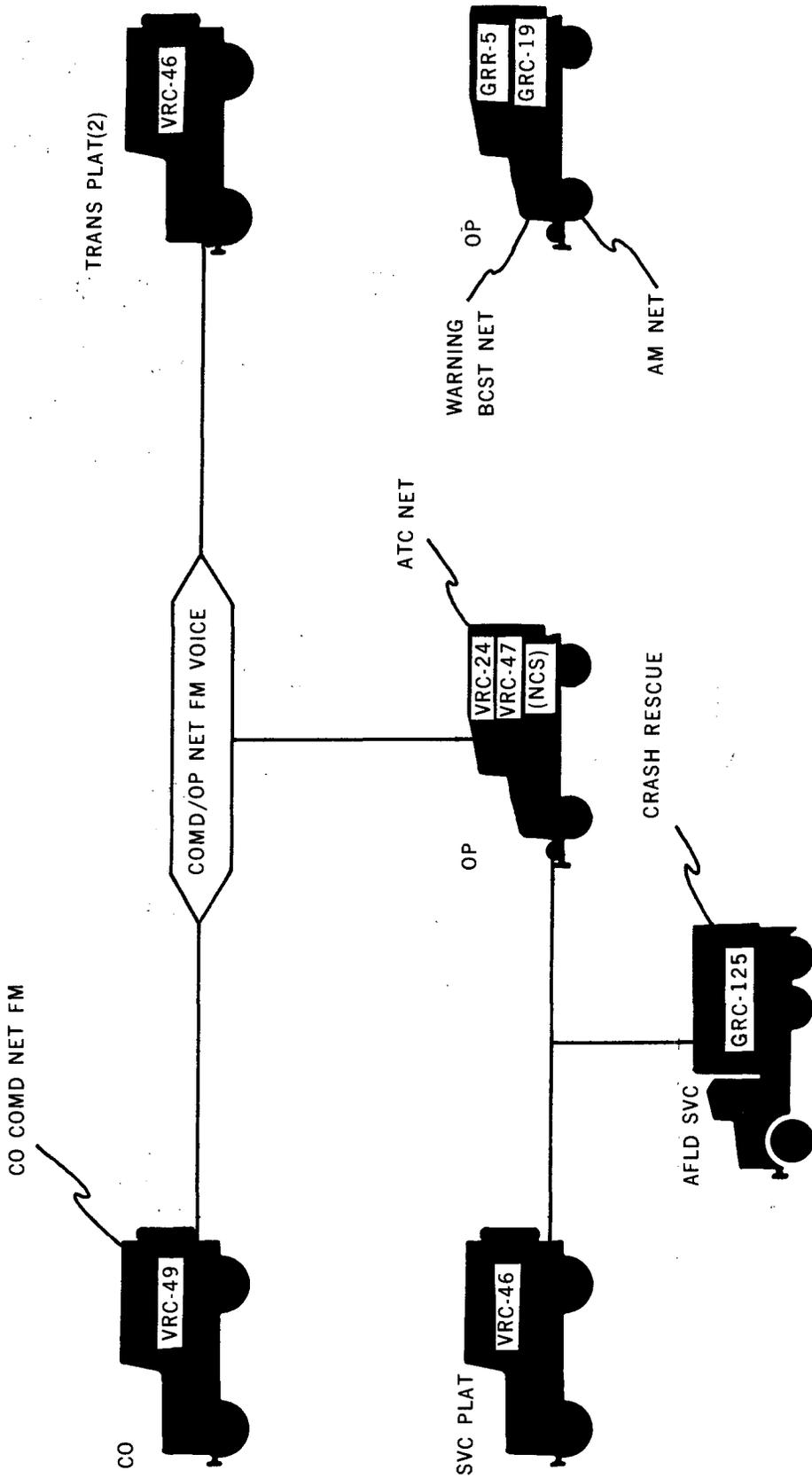
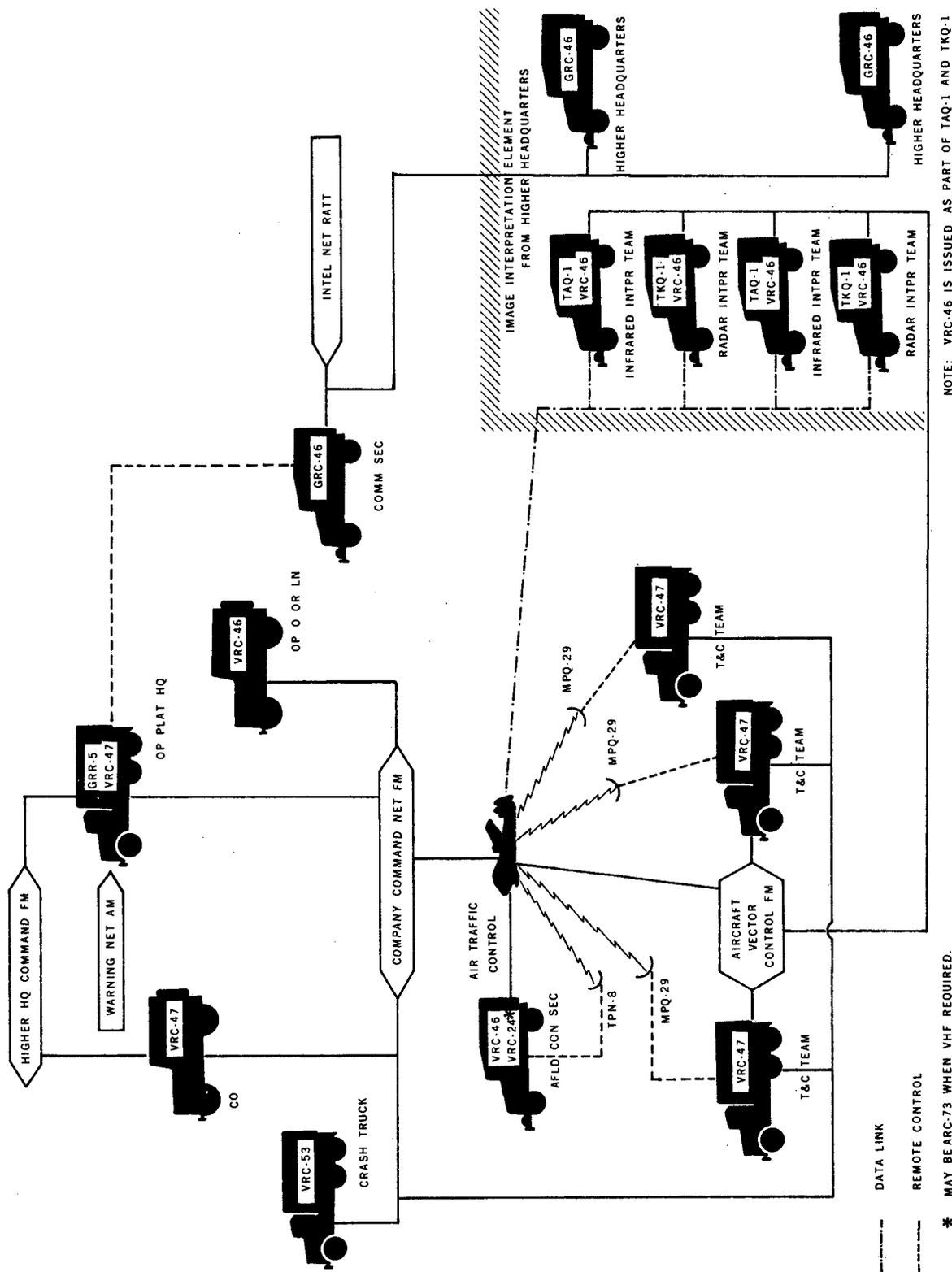


Figure B-5. Type radio net, aviation fixed wing transport company, field army (TOE 1-107T).



NOTE: VRC-46 IS ISSUED AS PART OF TAQ-1 AND TKQ-1

Figure B-6. Type radio net, aerial surveillance company (TOE 1-128T).

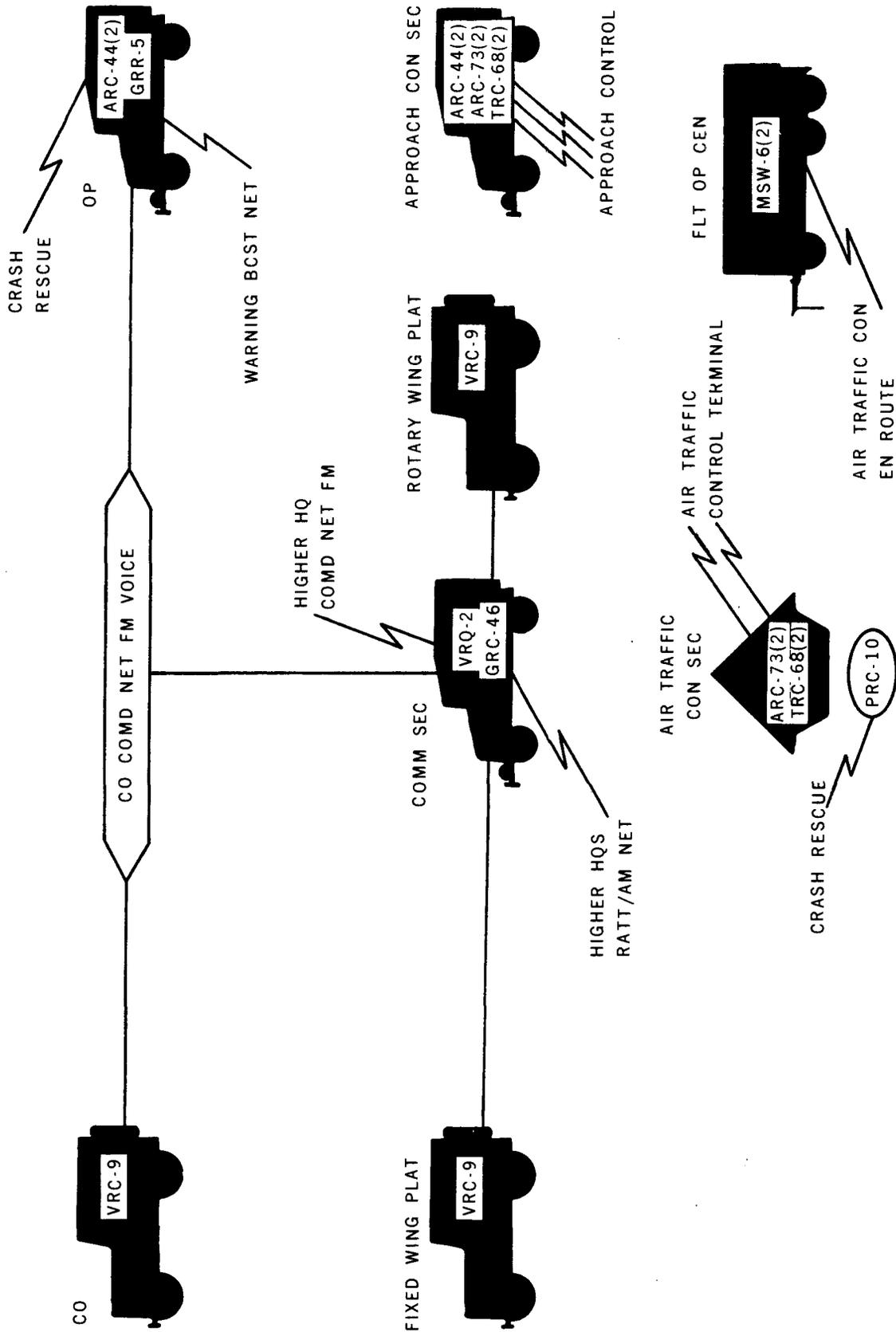


Figure B-7. Type radio net, corps aviation company (TOE 1-127D) and army aviation company (TOE 1-137D).

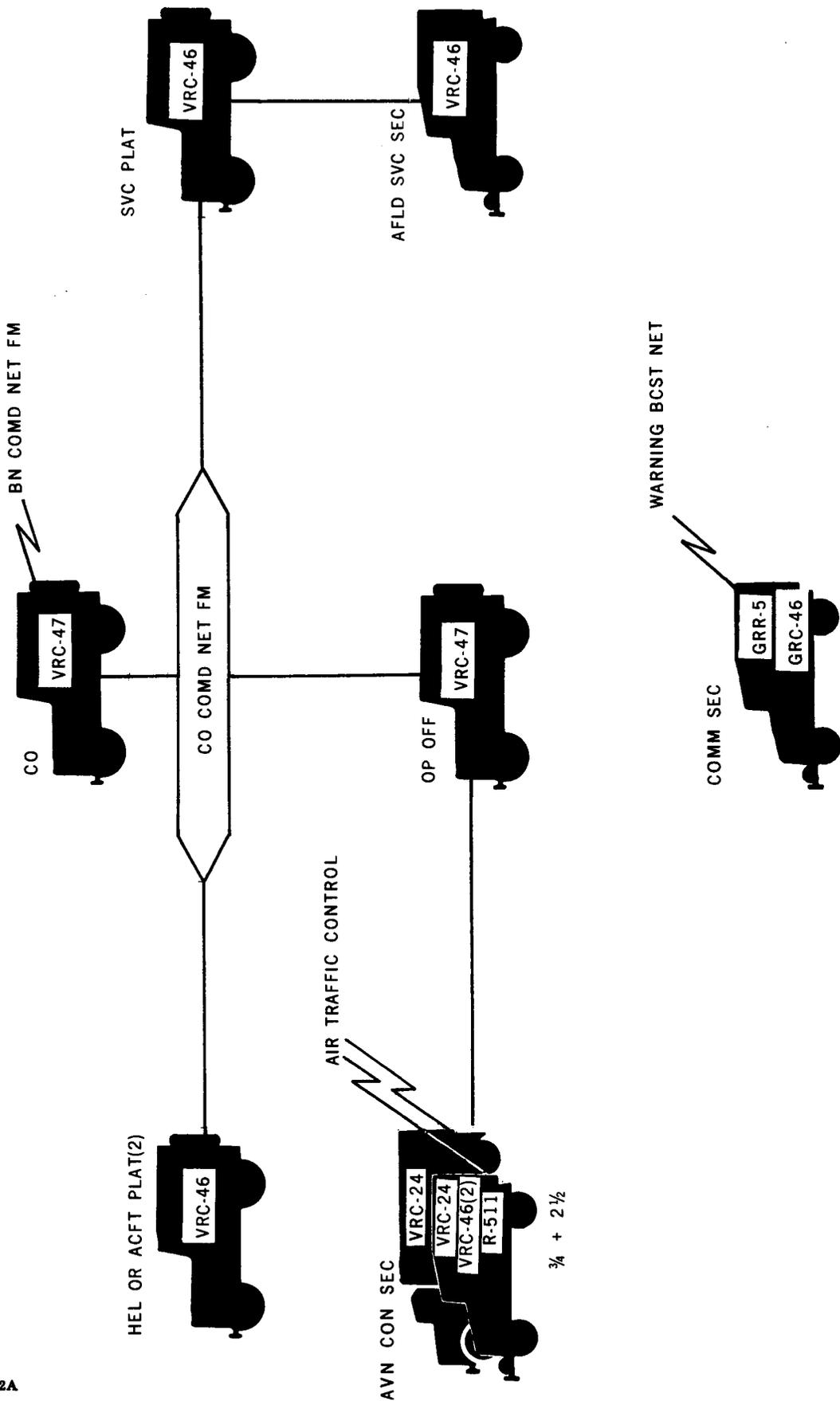


Figure B-8. Type radio net, aviation company, fixed wing (TOE 1-257F), and aviation company, medium helicopter (TOE 1-258F).

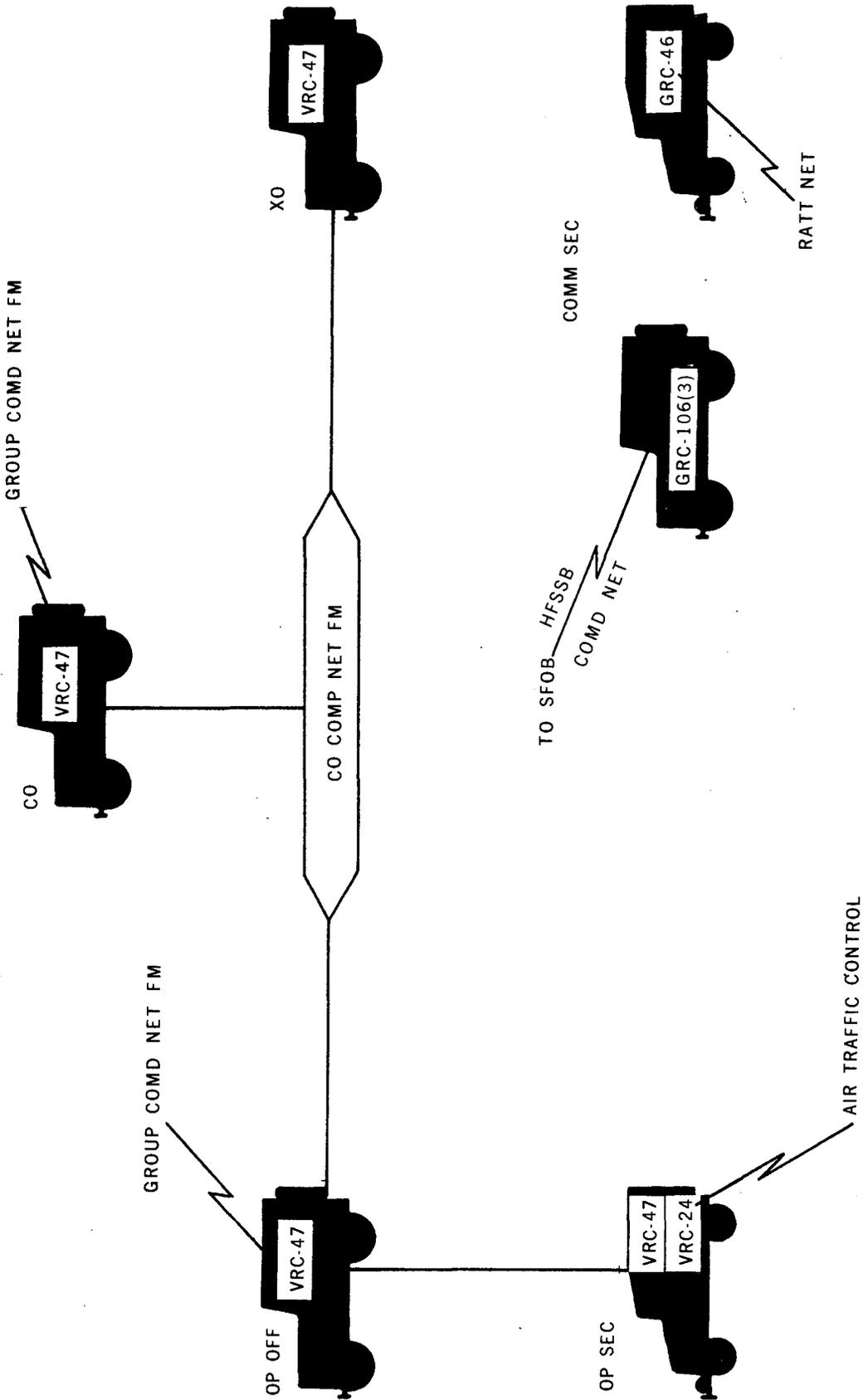
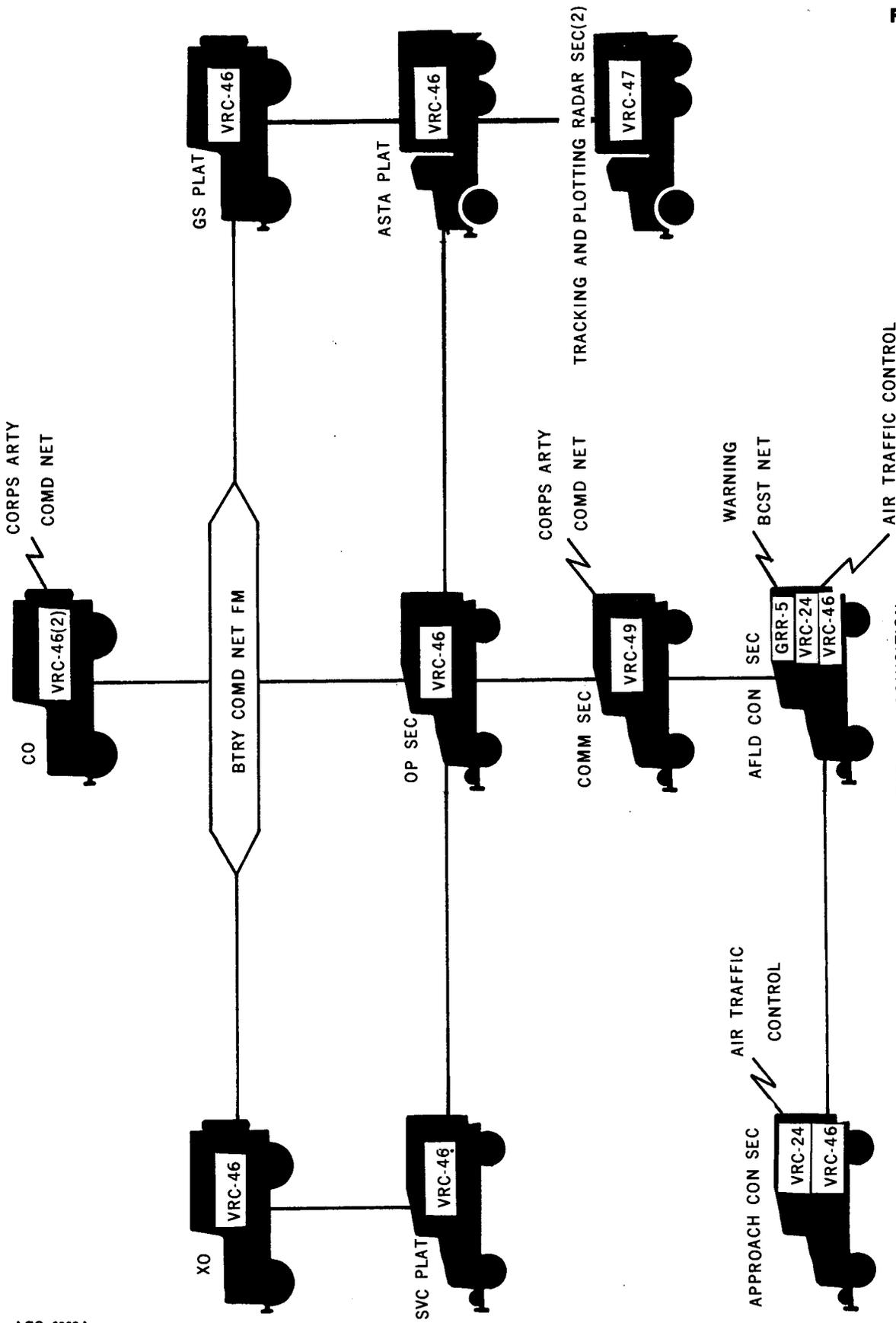


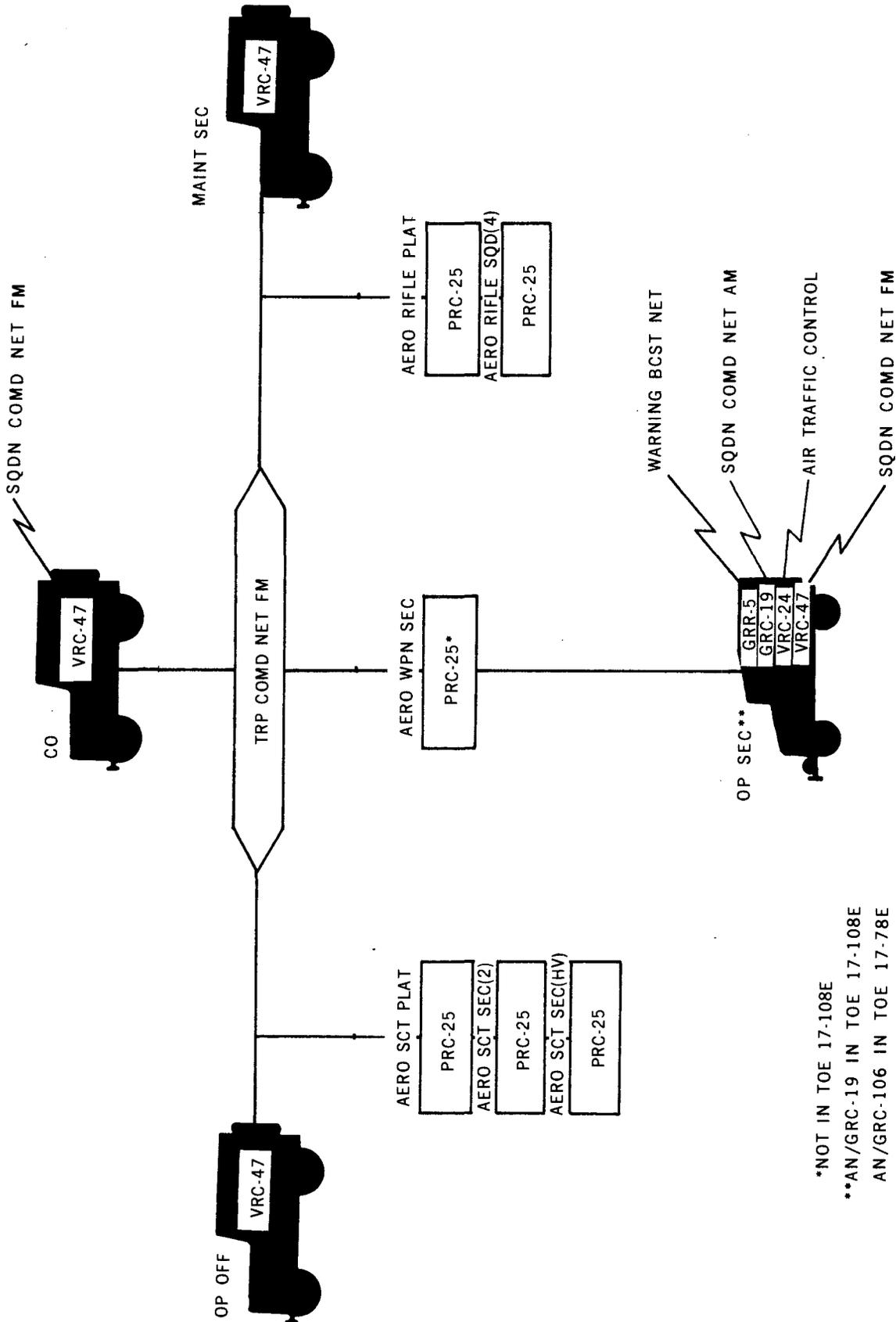
Figure B-9. Type radio net, aviation company, airborne special forces group (TOE 1-307E).



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Figure B-10. Type radio net, aviation battery, corps artillery (TOE 6-517T).

ASTA-AERIAL SURVEILLANCE AND TARGET ACQUISITION



\*NOT IN TOE 17-108E

\*\*AN/GRC-19 IN TOE 17-108E

AN/GRC-106 IN TOE 17-78E

Figure B-11. Type radio net, air cavalry troop, armored cavalry squadron, airborne division (TOE 17-78E), and air cavalry troop, armored cavalry squadron, infantry, armored, and infantry (mechanized) divisions (TOE 17-108E).

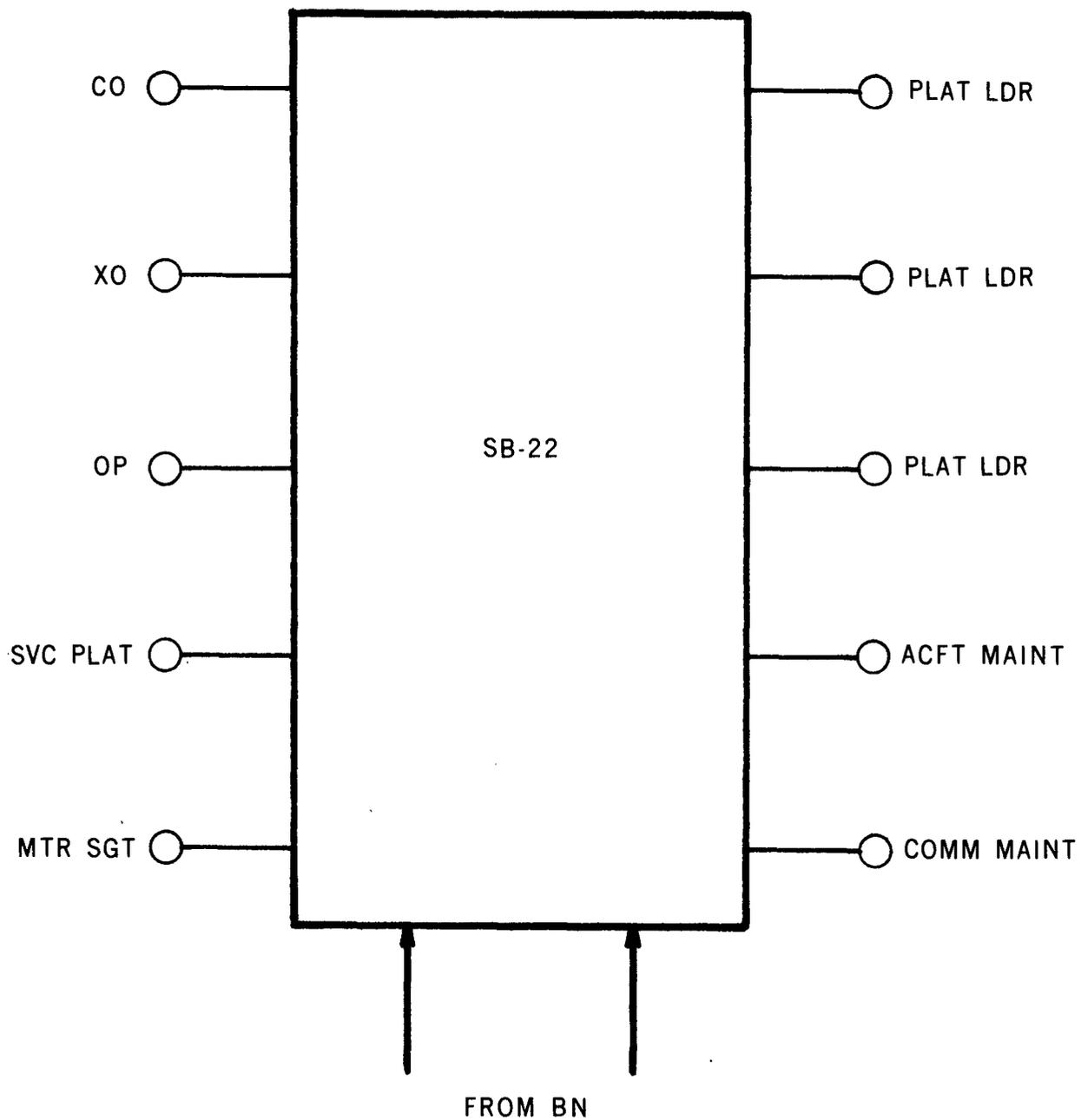


Figure B-12. Type wire system, airmobile company.

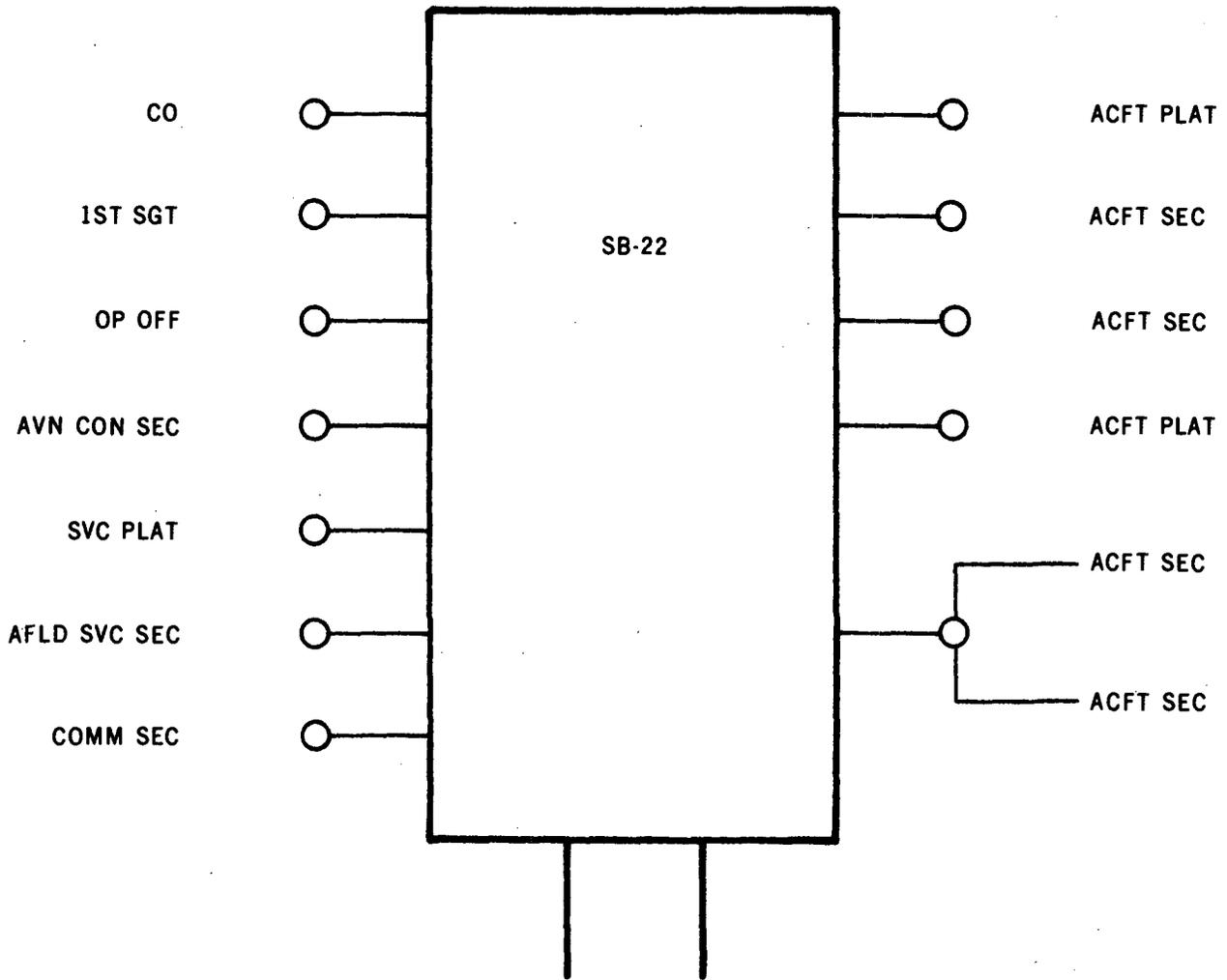


Figure B-13. Type wire system, aviation company, fixed wing (TOE 1-257F), and aviation company, medium helicopter (TOE 1-258F).

## APPENDIX C INSPECTIONS

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### C-1. General

Inspections are the means by which commanders determine the state of operational readiness of personnel and equipment assigned to a unit. They provide the company commander with definite indications of deficiencies requiring corrective action. Subsequent inspections indicate the degree to which corrective action has been effective, and reveal other deficiencies which may have come into existence. This appendix discusses the inspection of an aviation company by the company commander and by the battalion commander. AR 750-1, -5, and -8 contain guidance concerning inspections.

### C-2. Inspection of a Company by the Company Commander

The company commander inspects the company as often as necessary to insure that the unit is capable of performing its mission. These inspections may be formal or informal. Regardless of type, each inspection is conducted for a specific purpose. Following is a discussion of inspections conducted by the company commander.

#### *a. Formal.*

- (1) The formal command inspection involves advance notice and a set procedure. It normally applies to all phases of unit activity, including personnel, aircraft, and other equipment. The inspection usually is preceded by written instructions to the platoons or other elements to be inspected. These instructions indicate who will conduct the inspection, the specific manner and location in which equipment is to be displayed, and the time and place of preliminary conferences.

- (2) Although the company commander personally participates, he may employ an inspecting party to assist him. The party usually includes principal members of the unit and necessary technical personnel. The specific composition of the party depends on the type and extent of the inspection to be conducted.

*b. Informal.* The company commander conducts informal inspections of the unit when he considers them necessary. An informal inspection may be conducted at any opportune time or place, and usually is performed without prior notice. As the inspected element has no opportunity for preparation, the informal inspection provides the commander with information on actual day-to-day operations. The informal inspection follows no set procedure except the policies of the commander. The informal inspection is conducted with full attention to detail, and is one of the commander's most effective methods of evaluating the company.

### C-3. Inspection of a Company by the Battalion Commander

*a.* The company is subject to periodic inspections by the battalion commander. These inspections may be formal or informal, scheduled or unscheduled, and are conducted in much the same manner and for the same purpose as inspections conducted by the company commander. Primary emphasis is placed on those aspects which affect accomplishment of the battalion mission, and on areas in which deficiencies are known or suspected to exist.

*b.* The objective of a safety program is to reduce and keep to a minimum accidental manpower and equipment losses, thus providing more efficient utilization of resources and advancing the combat effectiveness of the Army. An aircraft accident prevention survey (FM

1-15) will aid the safety officer in evaluating safety conditions in his company. The survey discloses areas requiring personnel training and procedural or equipment changes.

#### C-4. Preaccident Plan

a. The company commander, assisted by the company aviation safety officer, prepares the company's preaccident plan to provide immediate assistance to personnel injured in aircraft accidents and to activate the aircraft accident investigation board. The *alarm system* is operated by flight operations personnel, using

organic means of communications to alert personnel of elements concerned with rescue operations.

b. When an accident occurs, priority in procedure will be determined by the circumstances of the accident. Procedures usually will follow this order:

- (1) Rescue of personnel.
- (2) Guarding the wreckage.
- (3) Organization of the investigation and determination of required specialists.
- (4) Assignment of duties and dispatch of assistance.

## APPENDIX D

### AVIATION SAFETY

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#### D-1. General

The aviation accident prevention effort exists to facilitate accomplishment of the Army mission through the effective operation of organic aircraft. The effort must assist rather than restrict the commander and his flying personnel in the accomplishment of the respective missions. To be effective, the aviation accident prevention effort must reflect the commander's interest and supervision. FM 1-15 discusses aviation safety in the aviation battalion.

#### D-2. Company Aviation Safety Officer

The company commander designates an individual to assume the additional duty of aviation safety officer for the company. This officer assists, advises, and represents the commander in matters pertaining to aviation accident prevention. His activities include coordination with the battalion's aviation safety officer (FM 1-15).

#### D-3. Safety Training and the Safety Program

a. Safety training is the method by which personnel are made aware of, and are trained in the execution of, their duties and responsibilities in carrying out the company aviation safety program. This training is applicable to all personnel, with particular emphasis on the training of personnel concerned with aircraft maintenance, airfield control, airfield service, crash rescue, and actual aircraft operations.

b. The objective of a safety program is to reduce and keep to a minimum accidental manpower and equipment losses, thus providing more efficient utilization of resources and advancing the combat effectiveness of the Army. An aircraft accident prevention survey (FM 1-15) will aid the safety officer in evaluating

safety conditions in his company. The survey discloses areas requiring personnel training and procedural or equipment changes.

#### D-4. Preaccident Plan

a. The company commander, assisted by the company aviation safety officer, prepares the company's preaccident plan to provide immediate assistance to personnel injured in aircraft accidents and to activate the aircraft accident investigation board. The *alarm system* is operated by flight operations personnel, using organic means of communications to alert personnel of elements concerned with rescue operations.

b. When an accident occurs, priority in procedure will be determined by the circumstances of the accident. Procedures usually will follow this order:

- (1) Rescue of personnel.
- (2) Guarding the wreckage.
- (3) Organization of the investigation and determination of required specialists.
- (4) Assignment of duties and dispatch of assistance.
- (5) Investigation and analysis to determine cause factors.
- (6) Consideration of cause factors and evaluation of the findings.
- (7) Preparation of the accident report.

#### D-5. Aircraft Accident Investigations

a. Aircraft accidents occurring in an element of an aviation battalion are investigated by an aircraft accident investigation board. Appointment and composition of the board is set forth in AR 385-40. The battalion SOP should prescribe the procedure for an aviation company operating as a separate unit to follow in conducting aircraft accident investigations.

*b.* Organizations conducting aircraft accident investigations may request assistance from the U.S. Army Board for Aviation Accident Research (USABAAR), Fort Rucker, Ala. Channels for obtaining USABAAR assistance will be by direct telephone call or electrically transmitted message from the major command or class II installation requesting assistance (AR 15-76).

*c.* Responsibility for completion of forms, records, and reports concerning aircraft accidents rests with the commanding officer of the unit conducting the investigation. Instructions for completing these forms and reports are contained in AR 385-40.

*d.* Aircraft accidents are charged to the unit which lists the aircraft involved on its property inventory books.

## APPENDIX E

### SURVEILLANCE PLATOON, GENERAL SUPPORT AVIATION COMPANY, AVIATION GROUP, AIRMOBILE DIVISION

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#### Section I. GENERAL

##### E-1. General

The surveillance platoon, general support aviation company, aviation group, airmobile division (TOE 1-102T), performs aerial reconnaissance, surveillance, and target acquisition missions in support of the division. (FM 30-20 discusses aerial observation operations, and FM 1-105 discusses the techniques and procedures used in these operations.) The platoon extends and supplements the division's aerial reconnaissance and surveillance capabilities by use of visual observation techniques and photographic or electronic sensory devices. The platoon must be augmented by imagery interpreter personnel in order for the filmed products of the platoon to be used profitably. Elements of the surveillance platoon (see para E-12) are—

- a. Surveillance platoon headquarters.
- b. Photographic processing section.
- c. Aerial radar section.
- d. Aerial infrared section.
- e. Surveillance aircraft maintenance section.

##### E-2. Capabilities

Capabilities of the surveillance platoon include the following:

- a. Provides aerial observation, reconnaissance, and surveillance by visual, radar, infrared, and visual photographic means of enemy areas for the purpose of locating, verifying,

and evaluating targets, terrain study, and fire adjustment.

- b. Provides (day and night) operations during visual weather conditions and limited operations under instrument weather conditions.

- c. Provides rapid aerial photography consisting of daylight vertical and oblique photography and night vertical photography.

##### E-3. Command Channels

Command channels for the surveillance platoon's normal administrative, logistical, training, and maintenance functions are provided by the aviation group and the general support aviation company. The general support aviation company provides supply, mess, quarters, administration, and discipline for the platoon.

##### E-4. Control

All elements of the surveillance platoon operate under the command of the platoon commander. The platoon normally is employed in general support under operational control of the division G2. In matters concerning the platoon, the G2 (air) serves as the principal assistant to the G2. A G2 (air) representative and appropriate personnel for imagery interpretation and aviator briefing and debriefing are located at the platoon's airfield.

#### Section II. PLANNING

##### E-5. General

The G2 (air) analyzes the commander's concept of the operation and develops the division's

aerial surveillance plan by integrating the capabilities of the aerial surveillance platoon with the capabilities of other aerial reconnais-

sance elements of the division and tactical air reconnaissance provided by the U.S. Air Force. After the aerial surveillance plan is approved and published, the G2 (air) is ready to process requests for aerial surveillance missions. He assigns aerial surveillance missions and establishes priorities according to the plan, and integrates into the plan additional aerial surveillance requirements as they are received. Requirements for aerial surveillance are divided into two categories—

*a. Immediate.* Immediate requests are those which cannot be foreseen and which require immediate action. Since these requests normally are generated by a need to confirm or deny reports of possible targets received from other courses, the platoon must be prepared to provide immediate response.

*b. Preplanned.* Preplanned missions are based on requests for information which can be anticipated and scheduled in advance in the aerial surveillance plan. These requests are generated by the need to maintain a systematic watch over those portions of the division's area of influence beyond the capabilities of other collection means within the division.

#### **E-6. Priorities**

The G2 (air) receives and screens requests for aerial surveillance from the division staff and subordinate units and assigns the priority for each mission request. Determination of whether a mission will be assigned to the aerial surveillance platoon or forwarded for accomplishment by the U.S. Air Force is based on the following factors:

*a.* Whether the information required is presently available or being obtained.

*b.* Capability and status of the organic effort to perform the mission.

*c.* Time the requested information will no longer be of value.

*d.* Capability of enemy air and air defense and other countermeasures.

*e.* The division's mission, current situation, and posture in relation to adjacent supporting units.

*f.* Availability and reaction time of tactical

air reconnaissance support if the mission is appropriate for U.S. Air Force accomplishment.

#### **E-7. Considerations**

In planning the employment of surveillance platoon aircraft, the following must be considered:

*a.* Enemy air defense capability.

*b.* Penetration altitude and mission altitude.

*c.* Air traffic regulation and coordination.

*d.* Existing authentication and identification systems.

*e.* Selection of landing zones for use by returning aircraft.

*f.* Escape and evasion information and instructions.

*g.* Selection of sensory equipment.

*h.* Briefing of personnel for each specific mission.

#### **E-8. Coordination**

Upon processing the requests for aerial surveillance, the G2 (air) places the requirement with the unit that will perform the mission.

*a.* When the mission can be more satisfactorily accomplished by higher headquarters or by the supporting U.S. Air Force tactical air reconnaissance unit, preplanned type requests will be forwarded to the corps G2 (air). If corps cannot fulfill the request, it is forwarded to field army. Immediate type requests are transmitted to the direct air support center via the air request net. The corps G2 (air) monitors this net and indicates approval of the division request by remaining silent.

*b.* When the mission is to be accomplished by the surveillance platoon, pertinent data is transmitted by the G2 (air) to his representative—normally the assistant G2 (air)—at the division airfield. This representative serves as liaison officer between the surveillance platoon commander and the G2 (air). Information relayed to the surveillance platoon commander through the assistance G2 (air) will include—

(1) Priority.

(2) Mission request number.

- (3) Type mission.
- (4) Target description.
- (5) Target location.
- (6) Photo scale, if applicable.
- (7) Number of prints needed, if applicable.
- (8) Specific results desired.
- (9) Type report desired.
- (10) Call sign and frequency.
- (11) Desired time on target.
- (12) Desired time for results.
- (13) Time no longer of value.

### Section III. EMPLOYMENT

#### E-9. General

Aerial and ground elements of the surveillance platoon, under direct control of the air-mobile force commander, provide a continuous flow of comprehensive and detailed battlefield information to the division's intelligence processing agencies. Increased organic aerial means of the platoon permit surveillance and reconnaissance of the division's area of interest on a basis of extended range and frequency.

#### E-10. Briefing

Air crewmembers of the platoon receive general and preflight briefings as follows:

*a. Daily.* Air crewmembers are given a general daily briefing concerning the next 24 hours of the tactical operation. This type of briefing is intended to shorten and simplify preflight briefings during the subsequent 24 hours.

*b. Preflight.* Each crewmember receives a preflight briefing in conjunction with each mission assignment. The assistant G2 (air) or his representative conducts the portion of the briefing which relates specifically to requirements of the mission. The platoon aerial surveillance officer normally conducts that portion of the briefing which pertains to the overall tactical situation.

#### E-11. Operations

Operations of the surveillance platoon are characterized by rapid response to mission requirements derived through—

*a.* Habitual close association between flight crews and supported units.

*b.* Current standing operating procedures.

*c.* Maximum emphasis on mission type orders, fragmentary instructions, and en route briefing of flight crews.

*d.* Understanding of methods of operation of supported units, preplanned sequences of events, and mission requirements.

*e.* Flexible en route reorientation of mission support caused by changes in the battlefield configuration, units supported, or mission objectives.

*f.* Training of unit personnel in teamwork, in-flight discipline and job performance.

*g.* Flexibility of mission performance afforded by multiplicity of job capabilities inherent to the aircraft, crewmembers, and surveillance systems.

*h.* Flight crew knowledge of enemy situation and capabilities.

#### E-12. Functions of Elements

Elements of the surveillance platoon perform their functions as follows:

*a. Surveillance Platoon Headquarters.* The platoon headquarters assists the platoon commander by performing administrative, operational, and supply functions necessary for operation of the platoon. This headquarters is located where it can command, control, and coordinate its subordinate elements and facilitate the planning and coordination of missions. It insures timely and efficient execution of aerial surveillance and target acquisition tasks assigned to the platoon.

*b. Photographic Processing Section.* The photographic processing section contains personnel and equipment required for developing and storing prints of imagery produced by the platoon's electronic or photographic sensors.

*c. Aerial Radar Section.* The aerial radar section performs visual observation, aerial electronic surveillance, and aerial target acquisi-

tion tasks in support of the division. Equipped with radar and photographic sensors, the section normally employed to provide surveillance of routes, zones, or areas where enemy movement is suspected in order to obtain indications of unusual enemy activity or to acquire targets. The section may be employed on day or night aerial surveillance or target acquisition missions, with the procedures and techniques used being determined by the tasks being performed (FM 1-105). Visual observation is employed during periods of good visibility; and the section's airborne radar surveillance system—a side looking aerial radar (SLAR)—is used during inclement weather when photography and infrared imagery quality are reduced. The SLAR permits electronic surveillance into enemy territory from an aircraft flying over friendly terrain. It can observe the terrain on either side of the aircraft or on both sides simultaneously. The system has a data transfer link to a ground station, which may be located at a considerable distance from the aircraft. Radar imagery recorded in flight by the aircraft surveillance equipment can be transmitted simultaneously to the ground station. This system also has an in-flight processing capability which enables the operator to view the imagery while it is being produced and relay the intelligence information to the ground by radio. This capability can be used when the aircraft is operating beyond the range of the data transfer link.

*d. Aerial Infrared Section.* The aerial infrared section performs aerial observation, aerial surveillance, and aerial target acquisition tasks in support of the division. The section uses short takeoff and landing aircraft which are equipped with infrared and photographic devices. The section is employed to provide air-to-ground infrared surveillance of routes, zones, or areas within friendly or enemy territory and to acquire targets. It may be employed on day or night aerial surveillance and target acquisition missions, with the procedures and techniques determined by the type of task being performed. Although some of the infrared sensors are particularly effective at night in clear weather, the system is not an

all-weather system. For satisfactory results with photographic or infrared detectors, the aircraft must fly below cloud levels in the area to be photographed or surveyed.

*e. Surveillance Aircraft Maintenance Section.* The surveillance aircraft maintenance section contains personnel, equipment, and the normal amount of spare parts necessary for the organizational maintenance of the surveillance platoon's aircraft and the sensory equipment mounted in those aircraft. Aircraft refueling specialists and equipment are provided for refueling the platoon's aircraft. The section maintains aircraft maintenance records in accordance with the Army integrated equipment records and maintenance management system (TM 38-750 and TM 38-750-1).

### E-13. Reporting

Spot reports are used during flights to relay critical intelligence information to using elements of the division. These reports normally are transmitted by radio, but can be delivered by message drop or by use of prearranged signals. When necessary, and when circumstances permit, the aviator may land at or near the requesting unit. If a spot report is not required while the aircraft is in flight, the debriefing officer forwards a mission report through intelligence channels to units concerned.

### E-14. Debriefing

*a.* The same individual should conduct the preflight briefing and debriefing of the air crewmembers. The information is consolidated into two categories:

- (1) *Mission.* During the debriefing, the crewmembers are asked questions concerning all aspects of the mission assigned during the preflight briefing.
- (2) *General.* Any additional information obtained which was not an assigned task or any changes in tactical maps and weather data are categorized as general information.

*b.* Use of a debriefing form will aid the aviator-observer team in compiling mission data

and will shorten the time required for debriefing.

c. Essential items of navigational and imagery data must be recorded to make the

imagery identifiable and useful for interpretation and intelligence purposes. A sensor data log and a flight log should be maintained for each sensor mission flown.

## APPENDIX F

### AIR CRASH RESCUE PROCEDURES

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#### F-1. General

*a.* The function of air crash rescue as distinguished from air crash firefighting is essentially a lifesaving activity. It entails suppression of post crash fires sufficiently to permit extrication or recovery of injured personnel, initial emergency medical treatment of the injured, and their evacuation to an appropriate medical treatment facility.

*b.* Within the Army, air crash rescue support is provided by air elements of the Army Medical Service (AMEDS) and air crash firefighting support is provided by the Corps of Engineers. During combat operations, field training, or field exercises, air crash rescue support is required for all phases of airmobile missions. This support also is provided by AMEDS air elements.

*c.* Within AMEDS, the function of air crash rescue is separated organizationally from the function of aeromedical evacuation. The emergency nature of the two activities normally precludes their fulfillment by the same resources. This restriction does not preclude assignment of separate air crash rescue and aeromedical evacuation elements of a single medical organization such as a medical group.

#### F-2. Responsibility

*a.* Each airfield commander is responsible for providing emergency procedures, facilities, and crews or teams to assist in minimizing the loss of life and property at an aircraft accident on or in the vicinity of the airfield.

*b.* Air crash rescue support is provided—

- (1) At high density airfields and heliports by assigning an air crash rescue unit full time. This unit operates at the airfield under control of the installation commander and the technical supervision of the staff surgeon. Dispatch control for crash rescue missions is the responsibility of the airfield commander.
- (2) At other airfields and heliports as an on call service of an air crash rescue unit assigned an area support mission. This unit operates under control of the medical commander who is responsible for overall medical support in that area.
- (3) For air operations on call, normally on an area or unit support basis. The basis for assignment of air crash rescue units will be dictated by the number and types of supported aircraft and the air operations plan.

#### F-3. Equipment

Aircraft authorized AMEDS air crash rescue units are equipped with fire suppression materials, an external hoist, special tools needed to extricate occupants from a crashed aircraft, special medical equipment, and an internal litter carrying capability. The crew of the air crash rescue aircraft contains personnel specialists trained in aircraft fire suppression procedures, personnel recovery, and emergency medical treatment.

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By Order of the Secretary of the Army:

HAROLD K. JOHNSON,  
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Chief of Staff.*

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*Major General, United States Army,  
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NG: Avn Bn (3); Avn Co (3); Avn Det (1).

USAR: Avn Bn (3); Avn Co (3); Avn Det (1).

For explanation of abbreviations used, see AR 320-50.