

REFERENCE

FM 55-37

DEPARTMENT OF THE ARMY FIELD MANUAL

TRANSPORTATION BATTALION INFANTRY DIVISION

~~Room 1A518, Pentagon~~

~~Washington, DC 20310-6050~~



HEADQUARTERS, DEPARTMENT OF THE ARMY
JULY 1957

AGO 186C—July

1

2

FIELD MANUAL

No. 55-37

 HEADQUARTERS,
 DEPARTMENT OF THE ARMY
 WASHINGTON 25, D. C., 3 July 1957

TRANSPORTATION BATTALION, INFANTRY DIVISION

	Paragraph	Page
CHAPTER 1. GENERAL		
Section I. Introduction.....	1	3
II. Employment.....	2-9	3
III. Communications.....	10-13	7
CHAPTER 2. HEADQUARTERS AND HEADQUARTERS COM- PANY		
Section I. General.....	14-18	14
II. Command element.....	19, 20	17
III. Division transportation section.	21-23	18
IV. Administrative section.....	24, 25	21
V. Operations and intelligence section.	26, 27	23
VI. Battalion supply section.....	28, 29	24
VII. Communications section.....	30, 31	25
VIII. Company headquarters.....	32, 33	26
IX. Maintenance platoon.....	34-36	27
X. Operation of unit messes.....	37, 38	29
CHAPTER 3. TRUCK TRANSPORT COMPANY		
Section I. Description	39-45	31
II. Utilization, control, and com- mitments.	46-48	34
III. Communication system.....	49-51	36

		Paragraph	Page
Section IV.	Duties of company officers---	52-54	37
V.	Duties of company enlisted personnel.	55-62	40
CHAPTER 4.	ARMORED CARRIER COMPANY		
Section I.	Description-----	63-69	48
II.	Task vehicle characteristics, capabilities, and limitations.	70-75	51
III.	Utilization and control-----	76-78	54
IV.	Communication system-----	79, 80	55
V.	Duties of personnel-----	81-85	57
CHAPTER 5.	MARCHES AND BIVOUAC AND ASSEMBLY AREAS		
Section I.	Marches-----	86-111	62
II.	Bivouac and assembly areas_	112-119	81
CHAPTER 6.	TRAINING -----	120-129	86

CHAPTER 1

GENERAL

Section I. INTRODUCTION

1. Purpose and Scope

a. The purpose of this manual is to provide training guidance for officers and noncommissioned officers of the transportation battalion, infantry division.

b. The scope of this manual includes the organization, mission, major items of equipment, functions, and employment of the transportation battalion, infantry division, and assigned units; TOE's 55-75, 55-76, 55-77 and 55-78. Tactical employment of armored carrier unit is presented in FM 7-40 and FM 7-10. The text includes appendix I which provides a complete list of references on training publications applicable to this transportation battalion.

c. The material presented herein is applicable without modification to both atomic and nonatomic warfare.

Section II. EMPLOYMENT

2. Mission of Transportation Battalion

The mission of the transportation battalion is to—

a. Provide tactical mobility to assault elements of an infantry division for pursuit and exploitation, and for other tactical missions.

b. Provide a pool of vehicles for logistical movements of personnel and supplies of an infantry division.

c. Provide transportation staff planning for the division.

3. Organization and Strength

The transportation battalion consists of a headquarters and headquarters company; one truck transport company; and two armored carrier companies. Personnel authorization is as indicated in TOE 55-75T (figure 1).

4. Assignment

This transportation battalion is organic to an infantry division.

5. Capabilities

a. Provides cross-country mobility to assault elements of an infantry division.

b. Provides infantry battle groups with a means to rapidly exploit the effects of mass destruction weapons.

c. Provides transportation for the administrative and logistical movement of personnel and supplies for an infantry division.

d. Provides transportation staff planning for the division.

e. Fight as infantry when required.

TOE 55 - 75T ROCID
10 OCTOBER 1956

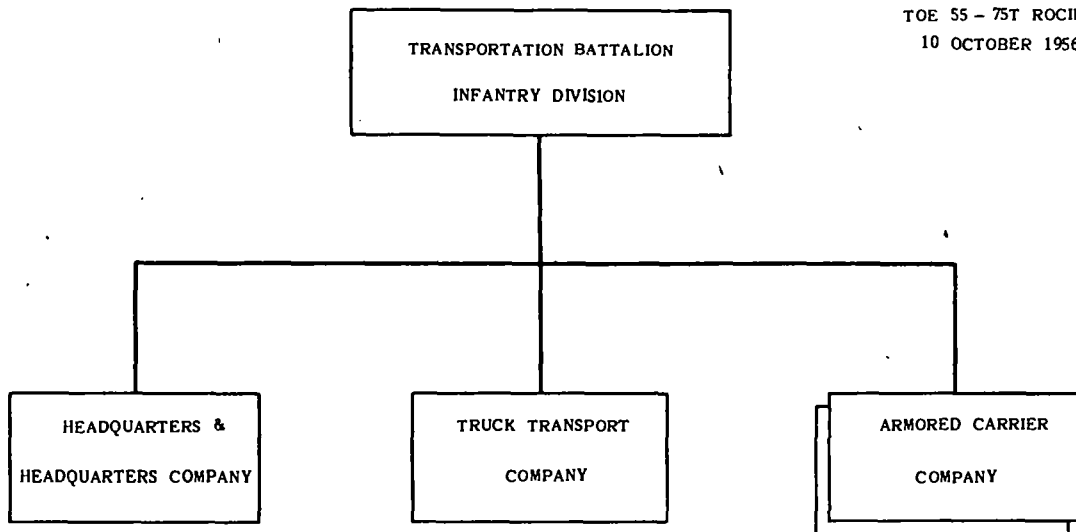


Figure 1. Organization—transportation battalion infantry division.

6. Limitations

a. The transportation battalion must rely upon the medical battalion for medical service and upon the division administration company for personnel administration.

b. See limitations listed in paragraphs 44 and 68.

7. Air Transportability and Ground Mobility

a. The battalion is air transportable with the exception of the two recovery vehicles, medium, organic to the battalion maintenance platoon, headquarters and headquarters company.

b. The battalion is 100 percent mobile provided a portion of the task vehicles is available for transport of organic equipment and personnel.

c. The battalion is 90 percent mobile when task vehicles are not available for transport of organic equipment and personnel. Unit commanders must maintain a loading table, indicating transportation required to make the unit mobile.

8. Deployment

a. The transportation battalion command post is normally located in the division service area. Companies are dispersed throughout the division area based on their mission and/or probable employment. When not attached to division units, armored carrier companies are located well forward in the division area in formations dispersed down to platoon level. Headquarters company and the truck transport company are similarly dispersed in the division service area.

b. The battalion is assigned to division trains for—

- (1) Tactical command and control.
- (2) Rear area defense and area damage control.
- (3) Assignment of bivouac areas and control of relocation of division trains.
- (4) Supervision of routine administration and supply.

9. Logistical Support of Detached Units

a. The transportation battalion will normally provide resupply and maintenance support for its organic units when they are detached, except for signal equipment and medical services.

b. In planning for the detachment of subordinate units the battalion will arrange for maintenance of signal equipment (par. 12), resupply of POL and Class V (par. 30), vehicular maintenance (par. 37), and rationing (pars. 30 and 37).

c. Medical service for detached units will be provided by the unit to which attached (FM 7-100).

Section III. COMMUNICATIONS

10. Battalion Communications

a. The battalion communications center will be located at or near the battalion command post. The communication section will establish a radio net (fig. 2.) and a wire net (fig. 3.) for the battalion.

b. Communication is a function of command.

While the battalion commander is responsible for the establishment, operation, and maintenance of the communication system in the battalion, it is the battalion communications section that does the work. The following principles must be adhered to in establishing and operating a communication system:

- (1) All means of communication available to the battalion must be used. This prevents overloading any one means and minimizes the effect of a disruption.
- (2) Command liaison must be maintained with division trains headquarters, subordinate, adjacent, and supported units.
- (3) When working with the tactical forces the battalion communication system must be organized to fit the task organization and the system must be integrated with the net of the supported unit.

11. Communication Security

a. The transportation battalion commander is responsible for the communication security measures employed in his battalion and subordinate units. Communication security is defined as all the measures taken to prevent or delay the enemy from gaining information from our communication system. It is the responsibility of the battalion commander to determine the maximum degree of communication security that he can employ consistent with his mission and the reaction time available to the enemy. Communication security includes—

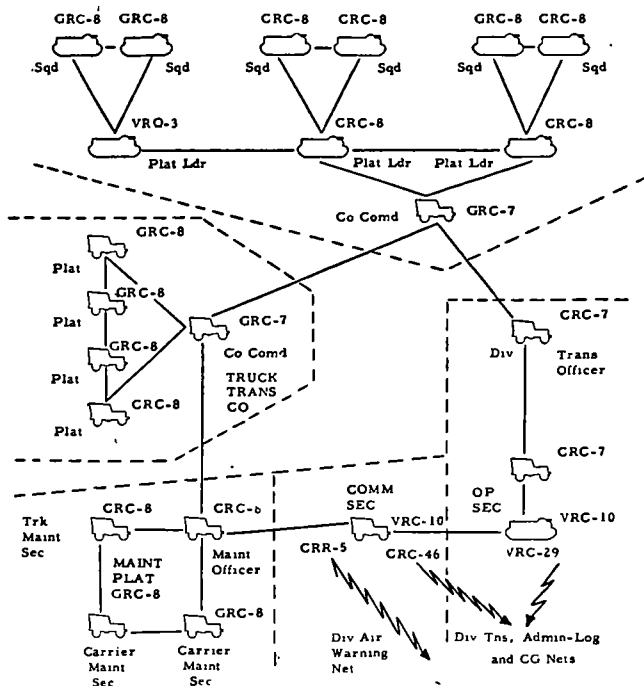


Figure 2. Communications diagram—radio.

- (1) Cryptographic security. Insuring that the unit is making proper use of the map and numeral codes, prearranged message codes, radio and telephone call signs, and such other cryptographic systems as are issued.
- (2) Physical security. Insuring that signal operating instructions (SOI) extracts

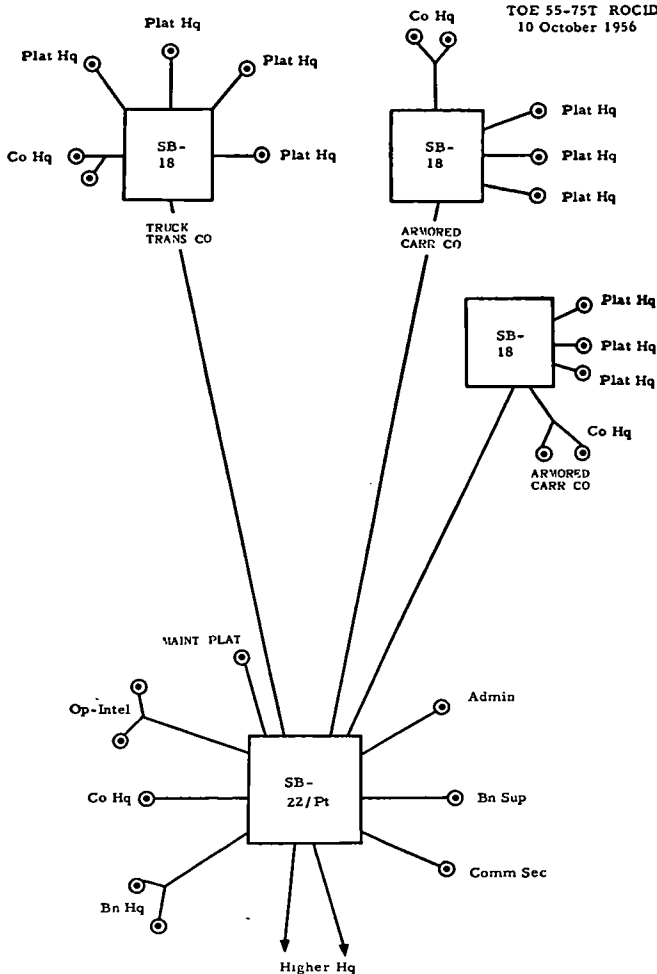


Figure 3. Communications diagram—wire.

issued the unit are properly safeguarded. SOI extracts should not be issued until shortly before they go into effect. SOI extracts issued each platoon or squad leader must be kept in the leader's possession while in effect and must be destroyed by burning when in danger of capture or when no longer in effect.

(3) Transmission security. Insuring that the following means of transmission security are constantly employed—

- (a) Radio or listening silence is used when necessary.
- (b) Unnecessary transmissions (chatter, repetitions, readability reports) are prohibited.
- (c) Net discipline is maintained.
- (d) Proper procedures are followed.
- (e) Authentication is made in accord with the instructions contained in standing signal instructions (SSI) and signal operating instructions (SOI).

b. The battalion commander must protect his electronic communication system from enemy jamming and imitative deceptive measures. All personnel must be trained to recognize radio jamming and deceptive transmissions and to combat them by—

- (1) Using other frequencies or operating nets as prearranged.
- (2) Speaking slowly and distinctly, using the phonetic alphabet if necessary.

- (3) Moving their location to a position in which a terrain feature may mask the enemy's jamming signals, but not the desired signals. Often a move of only a short distance may accomplish this.
- (4) Continuing to operate the radio while using alternate means to deliver the message.
- (5) Using authentication to detect deceptive messages sent by the enemy.

12. Communications Maintenance

The battalion commander is responsible for first and second echelon maintenance of signal equipment within the battalion. When a truck or carrier company or elements of either are attached to the infantry battle group, tank battalion, or cavalry squadron, second echelon maintenance of signal equipment will normally be provided by the unit receiving the attachment.

13. Means of Communication

a. Radio is the primary means of communication in the battalion. It affords the battalion commander a means of control and maintains a method of liaison with the division staff. In tactical operations when the subordinate units' equipment is integrated with the tactical forces, it is used by the tactical commander to control and coordinate the movement of the forces under his command. The company radio equipment is frequency modulated. Its greatest disadvantage is that prominent terrain features, buildings, and similar dense obstructions reduce its line-

of-sight transmission and thus reduce the range of operation. Radio is also subject to enemy interception and jamming.

b. Wire communication supplements radio and is utilized wherever practicable. The installation of wire is dependent on the time available. It is utilized to the greatest extent in defensive situations in bivouac areas and in assembly areas. It is more secure than radio and therefore should be used in initial phases when secrecy is important.

c. Driver-messengers supplement the use of radio and wire. Messenger communication is the most secure and reliable means. Its disadvantages include the fact that it is slow over long distances.

d. Visual and sound are auxiliary means of communications. They include the use of lights, flags, panels, arm-and-hand signals, pyrotechnics, alarms, shots, and horns. The primary prerequisite of visual and sound communication is prearrangement of meanings to insure that everyone understands them. Their use is restricted by distance, visibility, security, and the nature of the signal. Messages are necessarily simple. The principal uses of visual communication are for identification of vehicles and units and for alarms; to a limited extent, it is used for short control signals.

CHAPTER 2

HEADQUARTERS AND HEADQUARTERS COMPANY

Section I. GENERAL

14. Mission

To provide command and administration for assigned units to include—

- (1) The required personnel to assist the division transportation officer (battalion commander) in the performance of his duties.
- (2) Organizational maintenance support for the wheeled and tracked vehicles of the battalion.
- (3) Communications for battalion headquarters and organizational signal maintenance.

15. Organization and Strength

a. The battalion headquarters and headquarters company, consists of the command element and the following staff sections: division transportation, administrative (S1), operations and intelligence (S2 and S3, supply (S4), and communications. Second echelon maintenance for wheeled and tracked vehicles is provided by the battalion maintenance platoon, and company headquarters pro-

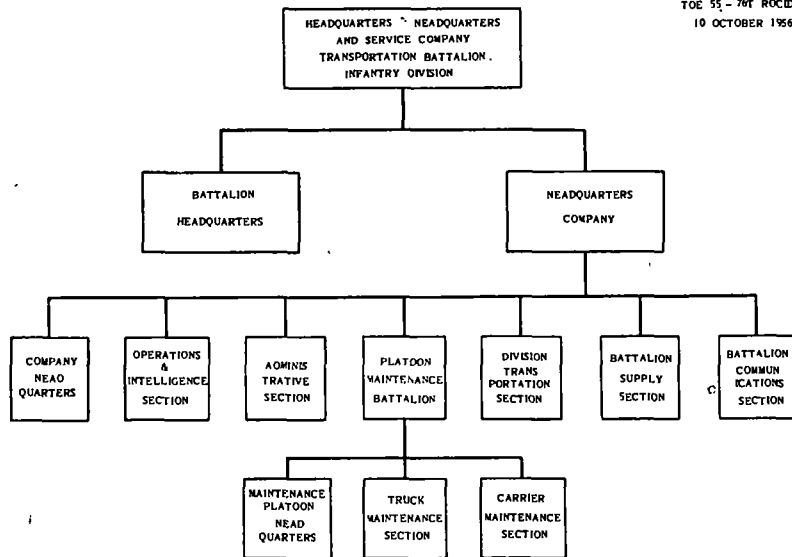


Figure 4. Organization of headquarters and headquarters company, transportation battalion, infantry division.

vides administration and supply for the company (fig. 4.).

b. While the staff officers are carried in the battalion headquarters column of the TOE, their duties are described with those of the section in which they work. The duties of key personnel in the battalion headquarters are presented in the discussion of their assigned staff sections.

c. Personnel authorization is as indicated in TOE 55-76T, (fig. 4).

16. Assignment

This company is organic to a transportation battalion infantry division.

17. Capabilities

a. Provides command, staff planning, coordination, and supervision of assigned units.

b. Provides staff assistance to the division transportation officer.

c. Fight as infantry when required.

18. Air Transportability and Ground Mobility

a. The company is strategically air transportable, with the exception of tank recovery vehicles, medium, M74, assigned to the battalion maintenance platoon.

b. The company is 50 percent mobile. See paragraph 7 for battalion mobility.

Section II. COMMAND ELEMENT

19. Organization

The battalion commander and executive officer comprise the command element in battalion headquarters.

20. Duties of Personnel

a. The battalion commander is also a member of the division commander's special staff. His command duties are separate and distinct from his duties as division transportation officer, each involving different responsibilities. Generally, both his command and staff duties consist of implementing the transportation battalion capabilities listed in paragraph 5.

- (1) As battalion commander he directs and/or controls and supervises all units of the battalion whether organic or attached to the battalion. He is responsible for the preparation of plans, policies and orders. He visits and inspects his troops and their activities and conducts personal reconnaissance.
- (2) As division transportation officer he acts as advisor to the division commander and staff and keeps them informed of the transportation situation. See paragraph 22.
- (3) Since the battalion commander has both command and staff responsibilities, either of which may require all of his time, he must adopt a method of operation that

permits him to perform his duties properly from two different locations. To assist him in his dual role, he has his executive officer and staff at battalion headquarters and the division transportation section at division headquarters.

b. The executive officer is second in command of the battalion and is responsible for carrying out the commander's policies. He exercises general supervision over and coordinates the work of the battalion staff sections. The executive officer keeps informed of the battalion and division situation and when possible assists the battalion commander in his functions as division transportation officer. He usually remains at the battalion headquarters when the commanding officer is absent.

Section III. DIVISION TRANSPORTATION SECTION

21. Organization

The transportation section of the division staff consists of the division transportation officer (transportation battalion commander), the movements officer, an operation sergeant, a movement specialist, and a clerk typist.

22. Duties of Division Transportation Officer and Section Personnel

a. General. As division transportation officer, he is an advisor to the division commander on matters pertaining to the employment, capability, and limitations of organic and attached transportation.

He is concerned with both tactical and administrative movements, and has operational control of the division traffic headquarters.

b. Major Functions. The functions of the division transportation officer are listed in FM 101-5, SOFM, Staff Organization and Procedure. Additional functions include—

- (1) Preparation of the transportation portion of the administrative/logistic plan or order.
- (2) Preparation of march order annexes.
- (3) Preparation of traffic circulation plans.
- (4) Coordination of transportation for the evacuation of civilians, refugees and, when required, for prisoners of war.
- (5) Preparation of emergency transportation plans to meet vehicular requirements over and above the capability of the division.
- (6) Investigation of instances of improper supply economy and abuse of transportation equipment, and recommending corrective action.
- (7) Operation and supervision of traffic headquarters, *c* below.

c. The Division Traffic Headquarters.

- (1) *Mission.* The mission of the traffic headquarters is to plan, schedule, route, and direct the actual use of highways to meet military operational requirements and provide a working-level organization for the resolution of day-to-day problems of highway regulation and traffic control.

(2) *Responsibilities.*

- (a) General staff supervision of the traffic headquarters is the responsibility of the ACOFS, G4.
- (b) The transportation officer has operational control over traffic headquarters and will designate an officer of his staff (normally the movements officer of the division transportation section) to serve as traffic officer.
- (c) Other staff members having responsibilities necessary to support the effective functioning of the agency include—the provost marshal for traffic control, highway information, and enforcement of traffic regulations; the engineer for highway signing, construction, intelligence classification, and maintenance; the signal officer for communications; the ordnance officer for vehicle evacuation; and the medical officer for medical evacuation.

- (3) *Organization.* The traffic officer is charged with the actual operation of the traffic headquarters and will normally be located in the vicinity of the division main command post. Transportation personnel of the organization are directly engaged in highway regulation functions of routing, scheduling, and directing the use of highways. Military police personnel are responsible for traffic control and for maintaining liaison with the provost marshal

to provide highway information and effect enforcement of traffic directives. Representatives of division engineer, signal, ordnance, and surgeon staff sections may be detailed to the traffic headquarters as required to coordinate matters which are the primary responsibility of the staff office they represent.

23. Operations

The division transportation section is a special staff section of the division. Normally it operates at the division main command post where close liaison can be maintained with the general and special staff members. Through the battalion radio net the section can maintain close liaison with the battalion operations section.

Section IV. ADMINISTRATIVE SECTION

24. Organization

The administrative section consists of the adjutant (S1) and enlisted personnel.

25. Duties of Key Personnel

a. The adjutant (S1) is concerned with the planning, coordination, supervision, and accomplishment of personnel functions within the battalion. He is principal advisor to the commander on personnel and administrative matters within the battalion.

b. Principal personnel functions of the S1 include—

- (1) *Strengths, records, and reports, including first echelon personnel support to all elements of the battalion.* Issuing pertinent instructions such as time of submission, period covered, form, and channels; preparing necessary personnel reports.
- (2) *Replacements.* Receiving replacements and arranging for their delivery to units.
- (3) *Morale.* Securing means for building and maintaining morale. Submitting recommendations for citations, decorations, honors, and awards. Supervising distribution and collection of mail. Supervising the leave and religious program. Planning, coordinating, and supervising the athletic and recreation program.

c. Administrative functions of the S1 include—

- (1) Maintaining the unit journal.
- (2) Processing official correspondence.
- (3) Maintaining records for the headquarters.
- (4) Accomplishing any other functions assigned, or which is not specifically assigned to another staff officer.
- (5) Furnishing clerical assistance to the staff.
- (6) Interior organization and management of battalion headquarters.

d. The sergeant major is the adjutant's principal assistant. He supervises and directs the administrative section in the preparation of correspondence, records, forms, reports, and orders. He is the liaison channel between battalion headquarters and the first sergeants.

Section V. OPERATIONS AND INTELLIGENCE SECTION

26. Organization

The operations and intelligence section consists of the operations officer, assistant operations officer, intelligence sergeant, truckmaster, assistant truckmaster, clerk-typist, radio teletype operators, and drivers.

27. Duties of Key Personnel

The officer in charge of the operations and intelligence section directs the activities as outlined below:

a. Intelligence Activities. With the assistance of the intelligence sergeant, he plans, coordinates, and supervises security and defensive measures for administrative installations and unit positions; maintains operations map, indicating the tactical situation and intelligence on existing highway map and off-road terrain conditions; supervises intelligence training for the battalion; procures and distributes photo maps of aerial photographs; coordinates battalion psychological warfare operations and training, and defense against enemy propaganda; and prepares terrain analyses and studies for battalion use. He also maintains liaison with the division, trains S3 for tactical employment, and defense of trains.

b. Operations. With the assistance of the assistant operations officer and the truckmaster, this section prepares and coordinates operational plans for the battalion; coordinates with the division transportation section for transportation requirements

and priorities; assigns work loads and operational tasks to subordinate units; plans and supervises plans and information for educational programs; implements procedures and instructions for vehicle dispatch and security; maintains central operational control of subordinate units; and maintains operational records and statistical reports. For type of operations instructions prepared and supervised by this section, see appendix III, FM 55-31. In planning operations, provision for transport of salvage must be integrated with other missions.

Section VI. BATTALION SUPPLY SECTION

28. Organization

The battalion supply section consists of the battalion S4, a supply warrant officer, a supply sergeant, supply clerks, and supply handler.

29. Duties of Supply Officer

a. The supply officer (S4) supervises the battalion supply section and keeps the battalion commander informed on the supply situation. His duties are generally prescribed in FM 101-5. For administrative and technical service supply, such as repair parts for tracked and wheeled vehicles, he works directly with the appropriate division technical service support units; assists unit commanders with training of supply personnel; makes ration breakdown; edits and consolidates requests for all classes of supply; keeps supply records; and receives, stores, and issues all classes of supply to the battalion. These supplies include rations, clothing

and equipment, petroleum products, signal equipment, and ammunition.

b. When units of the battalion are attached to an infantry battle group, armor battalion, or cavalry squadron, the supply officer must plan for and provide resupply of such units. With the determination of experience factors, standing operating procedure (SOP) can be established. Major items to be considered in planning for requirements are:

- (1) Class III.
- (2) Class V.
- (3) Vehicles for unit distribution of classes III and V. Vehicle requirements will be coordinated with the division transportation section.
- (4) Rationing (par. 37).

Section VII. COMMUNICATION SECTION

30. Organization

The battalion communications section includes the communications officer and the following enlisted men: communication chief, senior radio mechanic, radio mechanic, radio teletype operators, senior switchboard operator, senior wireman, message clerks, and wiremen.

31. Duties of Key Personnel

The communications officer, assisted by the enlisted communication chief, is responsible for providing the battalion with the means for signal communication and provides second echelon maintenance.

nance of communications equipment for the battalion. He supervises the installation, operation, security, and maintenance of the battalion communications net; provides message center for the battalion; assists in training of radio operators for the battalion and subordinate units; recommends the procurement of special communications equipment and furnishes technical advice and assistance to the S4 regarding signal supply; and prepares orders and procedures, signal operating instructions (SOI), and standard signal instructions (SSI) as are needed to insure tactical and technical control of the signal communications system. He sees that these directives are distributed and understood throughout the battalion. Field maintenance for signal equipment is provided by the division signal battalion.

Section VIII. COMPANY HEADQUARTERS

32. Organization

Company headquarters contains the company commander, first sergeant, company clerk, mess and supply personnel, and drivers required for the administration and supply of the company.

33. Duties of Key Personnel

The company commander, assisted by the first sergeant, commands and supervises the personnel assigned to the company; supervises the conduct, discipline, and appearance of company personnel; and is responsible for their health, welfare, and morale. Administratively, the company feeds,

clothes, supplies, quarters, pays, and provides recreational equipment for all men in battalion headquarters and in the company, provides for command post security and concealment, and assists the S1 in quartering.

Section IX. MAINTENANCE PLATOON

34. Organization

The battalion maintenance platoon is organized into a platoon headquarters, truck maintenance section, and carrier maintenance sections.

35. Duties of Key Personnel

a. The battalion maintenance officer advises the commander on the status of vehicle maintenance in the battalion. The battalion maintenance officer checks the status of vehicles through inspections and personal contacts with the companies of the battalion, and by observing the condition of vehicles as they are received at the battalion for second echelon maintenance. He is responsible for the supervision of organizational echelon vehicle maintenance (AR 750-1 and AR 750-5) in the battalion and is assisted in his duties by the battalion motor maintenance sergeant.

b. The truck maintenance section is headed by a wheeled vehicle maintenance warrant officer who is assisted by a motor maintenance sergeant.

c. Each carrier maintenance section is headed by a tracked vehicle maintenance warrant officer who is assisted by a track motor maintenance sergeant.

36. Operations

a. Each maintenance section is designed to provide complete second echelon maintenance support to include—inspection, detection, and correction of deficiencies; procurement of repair parts; and recovery service for disabled vehicles. To provide recovery service the truck maintenance section is equipped with a 5-ton medium wrecker and each carrier maintenance section is equipped with a medium recovery vehicle.

b. When the truck and carrier companies are located in close proximity to the battalion, the battalion maintenance platoon is normally located in the headquarters company area. This provides a pool of personnel and equipment and facilitates supervision.

c. When a truck or carrier company is attached to or placed in support of an element of the division or is at such a distance as to make maintenance support impractical from a central location, maintenance support may be provided by one of the following methods:

- (1) Attachment of a truck or carrier maintenance section to the company.
- (2) Provision for maintenance contact teams from the battalion maintenance platoon to visit the units and service the vehicles in position.
- (3) Coordination with the ordnance unit supporting the battle group to provide all or a part of the maintenance support required.

Section X. OPERATION OF UNIT MESSES

37. Unit Messes

Normally, mess sections of the battalion and subordinate units will be set up in the general vicinity of their respective command posts. Since personnel, such as drivers and mechanics, will be working around the clock and frequently away from their unit mess, company commanders must take the necessary action to insure that their personnel receive the proper rations. To accomplish this, commanders may select one of the following procedures:

- (1) Establish a 24-hour operation with 4- to 6-meal periods.
- (2) Operate separate mess detachments to accompany convoys.
- (3) Furnish prepared meals carried in insulated food containers.
- (4) Provide rations of the individual combat (C) or 5-in-1 type.
- (5) Prepare box lunches. This is the least desirable procedure and should never be employed repeatedly.

38. Mess Trucks

The mess trucks for all assigned units of the battalion are organic to the headquarters company. This transportation capability, when not being used for its primary mission, will be used for day-to-day administrative requirements of the

battalion. When a truck or carrier company is used in a supporting role, the company mess trucks will be furnished to the company. Mess trucks should not be modified to preclude their use in meeting the battalion administrative requirements.

CHAPTER 3

TRUCK TRANSPORT COMPANY

Section I. DESCRIPTION

39. Mission

The truck transport company has the mission of providing transportation for the tactical and logistical movement of personnel and cargo of the infantry division.

40. Organization and Strength

The truck transport company consists of a company headquarters and four truck platoons. Each platoon has a platoon headquarters and two truck squads. Personnel authorization is as indicated in TOE.

41. Assignment

The truck transport company is organic to a transportation battalion infantry division.

42. Vehicles

a. The task vehicle of the truck company is the truck cargo, 2½-ton, 6x6 with trailer, cargo, 1½-ton, 2W.

b. Trucks utility, ¼-ton, 4x4, each with a trailer cargo ¼-ton 2W are authorized for the purpose of control and supervision. A ¼-ton

TOE 55 - 75T ROCID
10 OCTOBER 1956

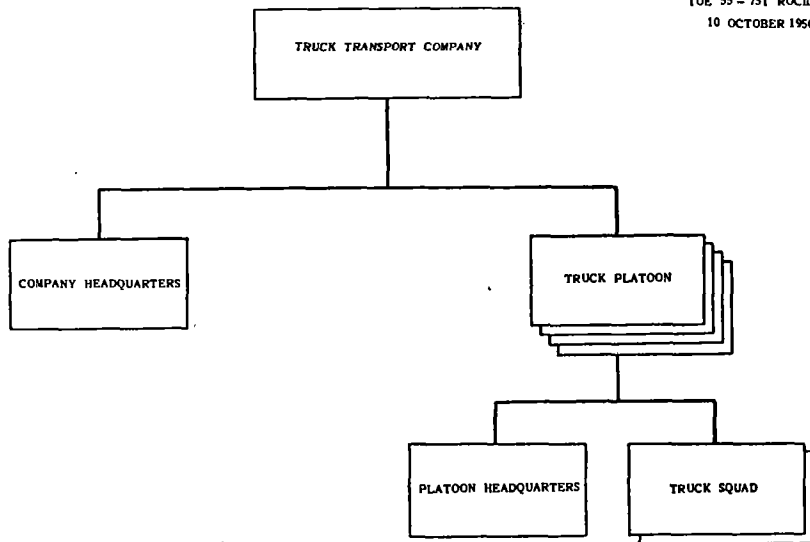


Figure 5. Organizational chart, truck transport company.

truck and trailer is in company headquarters and a 1/4-ton truck and trailer is in each of the truck platoon headquarters.

43. Capabilities

a. The truck transport company when operating at full strength, based on 75 percent vehicle availability, is capable of transporting in one lift—

- (1) 240 short tons of general cargo, (basis: 2 1/2-tons per vehicle, 1 1/2-tons per trailer) or
- (2) 1,200 personnel, (basis: 20 men per vehicle, trailers may be used for impediments) or
- (3) any appropriate combination thereof, an example of which is motorizing one infantry battle group and providing transportation for the unit distribution of classes I, II, and IV supplies to the division.

b. The company is capable of fighting as infantry in case of emergency to protect its own installation.

44. Limitations

The truck transport company is dependent on headquarters company of the transportation battalion for second echelon vehicle maintenance support.

45. Air Transportability and Ground Mobility

a. The truck company is air transportable.

b. The company is 100 percent mobile provided a portion of the task vehicles is available for transport of organic equipment and personnel.

c. The company is 95 percent mobile when task vehicles are not available for transport of organic equipment and personnel (par. 7*c*).

Section II. UTILIZATION, CONTROL, AND COMMITMENTS

46. Utilization and Control

The truck company is designed to operate as a unit but platoons or squads may be employed if required. For tactical operations the company may be attached on a mission basis or for a specific time period, or may be placed in support of division units. The company is under the operational control of the division transportation officer when it is not attached to division units.

47. Commitments

a. Normally three truck squads will be required each day for unit distribution of classes I and III supplies.

b. Approximately 55 percent of the 11½-ton trailers may be used for on-wheel storage of division reserves of classes I and III supplies. The location of these trailers will be as directed by the division G4, through the division transportation section; they will be moved by motor vehicles of the transportation battalion as directed in march orders.

c. When the truck company is assigned certain missions, such as motorizing an entire battle

group, unloading of the reserve supplies from the trailers may be required to provide adequate lift capability to the company.

48. Tactical-Type Missions

a. Support of Tactical Operations. When all or part of the truck company is attached to a combat element to provide transportation support, orders for their operations will be provided by the unit receiving the attachment. Normally the support mission will be to provide mobility to the combat element, which is to transport troops to the assembly area or assault position, withdraw into defilade and, after the objective is taken, pick up the combat troops to enable rapid dispersion and/or proceed toward the next objective. While combat elements are actively engaged, the truck elements must provide their own security against airborne or guerilla attacks. For security during tactical marches see paragraph 104.

b. Rear Area Defense Operations. The truck company, through the transportation battalion, will be incorporated into the rear area defense plans of the division trains area. The division trains commander is responsible for tactical employment of division trains units. Normally the truck company responsibilities for rear area defense will include defense of its own area and mutual support of adjacent units. Operations against airborne attack, guerilla action, and infiltration are outlined in FM 31-15.

Section III. COMMUNICATION SYSTEM

49. Radio

The truck transport company is equipped with vehicular-mounted FM (frequency-modulated) radio equipment that provides for company control, liaison with transportation battalion headquarters, and monitorship of the division warning net.

a. The company commander is provided a radio set AN/GRC-7 which is mounted in his $\frac{1}{4}$ -ton truck. The radio set consists of a low-power (1-mile range) receiver-transmitter, a medium-power (10-15 mile range) receiver-transmitter, and an auxiliary receiver that is tied in with the division warning net.

b. Each platoon headquarters vehicle is equipped with a radio set AN/GRC-8. This set is identical to the one found in company headquarters except that it does not include the auxiliary receiver. The AN/GRC-8 is used by the platoon leader for communications with company headquarters, highway regulating points and supported units.

50. Wire

The wire system in the truck company is deemed adequate. A small company switchboard is located in company headquarters. The switchboard is installed on the battalion wire line and is tied in with the field telephones located in company headquarters and in each of the platoon headquarters. The battalion wire line is installed by personnel

of the battalion communications section ; company wire lines are installed by personnel of the platoons. Principally, the wire system is installed during defensive operations, in bivouac areas, and during periods when radio silence is imposed.

51. Sound and Visual

Sound and visual communication means are utilized to the maximum. Identification panels are used to identify vehicles and ground positions to friendly aircraft. Prearranged meanings are assigned in the SOI extract to pyrotechnics, light, flag, and sound signals. Generally, these are used to call for or lift fire support, to direct movement of small elements, order the dismounting of personnel, and for identification. Precautions must be taken to prevent the enemy's learning the meaning of and recognizing the signals. Visual signals should, whenever possible, be screened from enemy observation to prevent alerting the enemy to impending action. Sound signals are used chiefly to spread alarm, attract attention, and transmit short messages of prearranged meaning.

Section IV. DUTIES OF COMPANY OFFICERS

52. General

All officers of the truck transport company must be thoroughly familiar with the operation, maintenance, and employment of vehicles, as well as with convoy operations, accident investigation procedures, security measures, field sanitation, truck company operations, and infantry tactics.

53. Company Commander

The company commander is responsible for all the company does or fails to do. As the commanding officer he is both the administrator of the company and director of its operations. He is responsible for the training of the company, for its efficient administration, for maintaining discipline, and for the equipment and its first echelon maintenance. As director of the highway transport operations of the company his duties include—

a. Instruction and supervision of company personnel in truck and convoy operations, first echelon maintenance of vehicles, methods of loading, training for internal security, defense of bivouac and assembly areas, and communications under both tactical and nontactical conditions.

b. Preparation of schedules for operation.

c. Supervision and assignment of driver and maintenance duties.

d. Supervision of the dispatching of vehicles.

e. Coordination of the operational and maintenance phases of company activities.

f. Instruction to improve the skills of the personnel of his unit and to promote teamwork so that his company may provide more efficient transportation service.

g. Utilization of command channels to obtain support when organic means are lacking in his company to fully discharge his responsibilities.

h. Maintain liaison with supported unit.

54. Platoon Leader

The platoon leader commands a truck platoon. He is responsible for the proper training and operation of his platoon, including both the technical and tactical phases. Following the general instructions and training schedules of the company commander, he instructs and supervises the platoon personnel in vehicular and transport operations, in first echelon maintenance, in methods of loading, and in cargo distribution. He is responsible for making certain that the instructions of the company commander are carried out by members of his platoon.

a. Each platoon leader must train his platoon with a twofold objective in view—the platoon must be trained to operate as a part of the unit team and as a separate unit. A platoon must be self-reliant: it may be detached from the company and have to operate as a separate unit. When this occurs the platoon leader acts as a commander of an independent detachment and is responsible for the maintenance, transportation, supply, and security of the unit.

b. When the company operates as a unit, platoon leaders may be assigned additional duties by the company commander. These assignments include such duties as supply officer; mess officer; company censor; chemical, biological, and radiological (CBR) officer; security officer; and such others as the situation demands. These additional duties should be rotated so that all of the company

officers become familiar with them. In delegating these duties, the company commander retains the responsibility for their proper performance. He must free himself of some of these duties, however, in order to have adequate time to supervise and direct the company's operations. Truck company officers are often called upon to act as convoy officers, motor pool supervisors, and accident investigation officers.

Section V. DUTIES OF COMPANY ENLISTED PERSONNEL

55. First Sergeant

The first sergeant is the principal noncommissioned administrative assistant to the company commander. Although his duties are primarily administrative, they also include the maintaining of discipline. The first sergeant carries out his duties under the direction of the company commander and in coordination with the platoon leaders. He should be an experienced truckmaster or at least thoroughly familiar with truck or car company operations.

56. Truckmaster

The truckmaster is the noncommissioned operations assistant to the company commander. He is the principal enlisted supervisor of motor transport operations, and he assists the company commander in their coordination and control. He is an experienced truckman capable of instructing drivers in vehicle operation, map reading, first

echelon maintenance, and other essential details incident to proper operation of Army motor vehicles. He must be thoroughly familiar with civil laws and military regulations pertaining to the operation of motor vehicles and convoys. He assists in the refresher and remedial training courses of drivers and is normally the unit safety noncommissioned officer. When the company operates as a unit, the duties of the truckmaster are to—

- a. Supervise the motor vehicle park.
- b. Assist, when required, in making inspections.
- c. Supervise and check vehicle operations.
- d. Report evidence of neglect, abuse, or carelessness.
- e. Supervise the keeping of records of motor vehicle operation and fuel, oil, and supplies consumed.
- f. Supervise, through the dispatcher, the proper dispatching and routing of company vehicles.
- g. Supervise the organization of the company vehicles in convoy operation.
- h. Coordinate with platoons for vehicle availability.

57. Assistant Truckmaster (Dispatcher)

a. The assistant truckmaster (dispatcher), under the direction of the truckmaster, operates the company vehicle operations center. He assigns the task vehicles of the company as directed to meet efficiently the commitments placed on the organization. His duties are to—

- (1) Receive and fill requests from authorized persons for highway transportation.
- (2) Check the time of departure and return of each vehicle.
- (3) Issue trip tickets when used and collect them to see that they are properly signed by the person for whom transportation was authorized and properly completed by the driver. He reports mechanical failures and discrepancies in trip records to the truckmaster, and takes on-the-spot corrective action when feasible and within the scope of the company SOP.
- (4) Maintains records of odometer readings (miles traveled), gasoline and oil consumption, trip frequency and elapsed time, type cargo and tons moved, and such other records as may be directed by higher headquarters.

b. The assistant truckmaster (dispatcher) takes the following actions on requests for transportation:

- (1) Selects the vehicle to be used and completes the initial entries on the DD Form 110 (Vehicle and Equipment Operational Record).
- (2) Posts all trip tickets at the time of issue on DA Form 9-75 (Daily Dispatching Record of Motor Vehicles).
- (3) Ascertains that each driver is familiar with his route, destination, and mission.

- (4) Keeps current a dispatching board, which as a visual aid will show (as a minimum) each vehicle number, the driver's name, whether the vehicle is in the park or out, its destination, and its expected hour of return. Space should be provided on the dispatching board for showing by number which vehicles are deadlined in battalion or field maintenance facilities. Additional information may be shown on the board if desired by the commander.
- (5) Receives operational records from drivers, recording necessary data on DA Form 9-75.
- (6) Examines both sides of each operational record to insure completeness of action by all concerned.
- (7) Initials operational records in space provided, and files tickets by registration number and date pending disposition, in accordance with current directives.

58. Mess Steward

The principal duties of the mess steward in a transportation truck unit are the same as in other Army units (par. 31).

59. Supply Sergeant

The company supply sergeant is responsible to the company commander for maintenance of all records and reports pertaining to property and supply. He must requisition supplies when needed,

turn in excess material if accumulated, and work very closely with the battalion S4 section. Due to the nature of truck unit operations, he should place special emphasis on the following:

a. Maintenance of proper level of organization equipment.

b. Constant replacement of expendable supplies.

c. Followup and re-requisitioning of all types and classes of supplies outstanding.

d. Reporting of any known abuse of materiel.

60. Platoon Sergeant

The platoon sergeant is the noncommissioned assistant to the platoon leader. He helps in training the platoon and supervises both its tactical and technical operations. Through the assistant platoon sergeant and the squad leaders, he directs the drivers of the platoon in truck and convoy operations and in first echelon maintenance.

a. As the direct supervisor of motor transport operations the platoon sergeant is first and foremost a truckmaster. He should be an experienced truckman and leader, capable of instructing drivers in the operation and care of military motor vehicles. He must have a comprehensive working knowledge of the capabilities and the proper utilization of the vehicles in his platoon. He must be thoroughly familiar with the military regulations and civil laws pertaining to the operation of motor vehicles and motor vehicle convoys. He supervises the operation of the platoon vehicles in

convoy and is responsible to the platoon leader for road discipline. He must be prepared to assume the platoon leader's functions.

b. When the platoon operates independently, the platoon sergeant assumes all the duties of a first sergeant. During the training period he must learn these duties. He must be familiar with dispatching and administrative procedures.

c. To perform his duties and to supervise the men under him, the platoon sergeant must be familiar with the following publications:

- (1) FM 25-10 Motor Transportation,
 Operations.
- (2) TM 9-1870-1 Care and Maintenance of
 Pneumatic Tires.
- (3) TM 21-300 Driver Selection and
 Training.
- (4) TM 21-305 Driver's Manual.
- (5) TM 9-2810 Tactical Motor Vehicle
 Inspections and Pre-
 ventive Maintenance
 Services.
- (6) The vehicle technical manual.

61. Squad Leaders

Under the direction of the platoon leader and the platoon sergeant, each squad leader is directly responsible for the discipline, training, and performance of the drivers assigned to his squad. Squad leaders supervise and enforce march discipline within their squads during convoy operations. They should be familiar with pertinent

publications and should be ready to assume the duties of the platoon sergeant at any time. Squad leaders are charged with continuous supervision of their drivers to insure efficiency of operation and first echelon maintenance under all circumstances. Squad leaders may also, if required, drive vehicles.

62. Drivers

Well-trained and disciplined drivers are the backbone of an efficient truck company. To promote esprit de corps and pride in equipment, each driver is assigned a vehicle which he retains as long as practical. He must know his vehicle, first echelon maintenance, convoy operation, and loading. The driver is responsible for the operation of his vehicle and for the safe and prompt delivery of his loads. He must be familiar with TM 21-305 and the technical manual pertaining to his vehicle.

a. The driver's duties include—

- (1) Operating vehicles in the movement of cargo or personnel, and following the routes and instructions given by competent authority.
- (2) Directing distribution of cargo load and securing cargo against shifting, inclement weather, loss, and pilferage.
- (3) Completing individual driver trip tickets, listing each item of information such as mileages, terminals, oil and gasoline added, malfunctions noted, and tonnage and personnel hauled.

- (4) In case of accident, gathering information for, and completing applicable portions of Standard Form 91 (Operator's Report of Motor Vehicle Accident).
- (5) Performing preventive maintenance on assigned vehicle by visual, manual, or auditory examination before, during, and after operation.
- (6) Servicing vehicle with oil, gas, water, and such other lubricants and coolants as may be prescribed, and maintaining required tire pressure.
- (7) Keeping vehicles clean and tight.
- (8) Changing tires.
- (9) Preparing vehicle for operations requiring the use of traction devices.
- (10) Preparing vehicles for fording under direction and supervision of the maintenance platoon.
- (11) Camouflaging.

b. All drivers must possess a valid Standard Form 46 (U.S. Government Motor Vehicle Operators Identification Card), for the type of vehicle which they will operate (AR 600-55). They must know military and local traffic regulations. They must be able to drive in convoy, in blackout, and over difficult terrain, and have a working knowledge of field expedients and emergency measures which will enable them to deliver their cargo and return to the company area (TM 21-305).

CHAPTER 4

ARMORED CARRIER COMPANY

Section I. DESCRIPTION

63. Mission

The armored carrier company has the two-fold mission of :

a. Providing the combat elements of the infantry division tactical mobility with armored personnel carriers capable of operating on roadways or cross-country.

b. Providing a means for resupply of combat elements of the infantry division when the avenue of approach is covered by enemy ground observed fire.

64. Organization and Strength

The armored carrier company consists of a company headquarters and carrier platoons. Each platoon has a platoon headquarters and carrier squads. Personnel authorizations are as indicated in TOE.

65. Assignment

The armored carrier company is organic to the transportation battalion, infantry division.

TOE 55 - 78T 20C1D
10 OCTOBER 1956

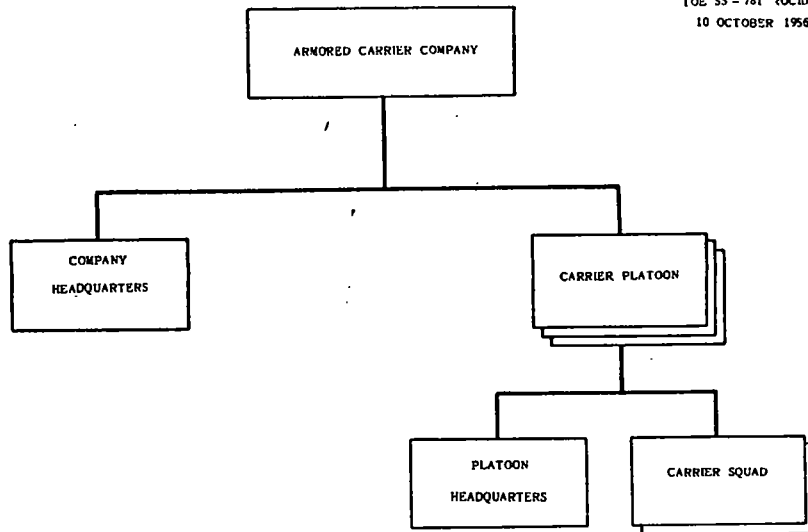


Figure 6. Organizational chart, armored carrier company.

66. Vehicles

a. The task vehicle of the armored carrier company is the carrier, personnel, full tracked.

b. Company headquarters has a truck, utility, 1/4-ton and a 1/4 ton trailer.

c. There are no other wheeled or tracked vehicles organic to the company.

67. Capabilities

The carrier company has the following minimum capabilities:

a. When operating at full strength with 1.8 drivers per carrier based on 75 percent vehicle availability, it is capable of transporting 440 personnel or 60 tons of cargo in one lift.

b. Based on 100 percent vehicle availability, each platoon can transport the assault element of an infantry company.

c. Fight as infantry when required in emergency situations.

68. Limitations

a. The carrier company is dependent on the headquarters company of the transportation battalion for second echelon vehicle maintenance support.

b. If the carrier crew is restricted to one driver, when carrying a full infantry squad, 24-hour operation is possible only for an extremely short time.

69. Air Transportability and Ground Mobility

a. The company is strategically air transportable.

b. As in the case of the truck company, this company is 100 percent mobile provided a portion of the task vehicle is available for transport of organic equipment and personnel.

c. The company is 95 percent mobile when task vehicles are not available for support of organic equipment and personnel (par. 7c).

Section II. TASK VEHICLE CHARACTERISTICS, CAPABILITIES, AND LIMITATIONS

70. General

The armored personnel carrier, M59, is a full-track armored vehicle with a restricted amphibious capability. The hull is a completely inclosed, watertight structure of light armor plate, forming a large, unobstructed personnel or cargo compartment. Combat loaded, the vehicle weighs approximately 21 tons.

71. Performance

a. *Land.* The maximum speed of the M59 is 32 mph on land and the operating range is approximately 120 miles. The vehicle is capable of ascending or descending a 60-percent slope and of crossing a ditch 5½ feet wide. The turning radius is 23 feet. In cross-country operations not involving swimming, 5 tons of cargo may be loaded in the vehicle. Obstacles, both natural and man-

made, may impede the movement of the vehicle. Operation is difficult in certain types of terrain, such as heavy woods, dense jungles, swamps, heavily eroded areas, and steep slopes. It may be unsafe to operate the carrier over areas with poor soil trafficability or to cross lightly constructed bridges because of the weight of the vehicle.

b. Water. The carrier, even under load of 3,100 pounds, is capable of operating in fairly calm water of unlimited depth. Maximum speed in water is 4.3 miles per hour (12 mph on speedometer). The vehicle cannot be used in currents over 4 mph (6 feet per second) without difficulty of operation, careful planning, and the taking of a calculated risk. Minimum freeboard for swimming is 13 inches.

72. Personnel Capacity

Using seat space only, the normal capacity of M59 is 12 persons; the driver and the commander in the driver's compartment and 10 men in the personnel compartment. When authorized, an additional five men may be seated on the floor between the personnel compartment troop seats. The vehicle can also be used to transport litter patients.

73. Doors and Hatches

The ramp in the rear of the vehicle is lowered to permit loading or unloading of personnel or cargo. In addition, personnel and equipment can be loaded or unloaded through the driver's hatch,

the vehicle commander's hatch, the cargo hatches in the top of the vehicle, and the escape hatch door in the ramp.

74. Communication

Some vehicles of the armored carrier company squad are equipped with the AN/GRC-8 radio. Other vehicles of the squad have no integral radio equipment. The vehicle of the carrier company platoon headquarters is equipped with an AN/GRC-8 or AN/VRQ-3 radio.

75. Capabilities

a. The carrier, with its limited armor protection, provides protection to the infantry or cargo it carries while moving through small-arms fire and under friendly or enemy light artillery or mortar air bursts, and it can move with safety through antipersonnel minefields. Its armor protection also provides a degree of protection from the blast, thermal, and radiation effects of atomic weapons and while moving through chemically, biologically, or radiologically contaminated areas.

b. The carrier can support the attack or defense of the infantry and provide antiaircraft protection with the fire of its caliber .50 machinegun. The gun may be fired from its vehicular mount or from a ground mount when a ground mount is available.

c. The carrier has cross-country mobility, but its movement is noisy and easy to detect, especially at night.

d. The carrier is capable of moving personnel and cargo across fairly calm rivers or other bodies of water.

Section III. UTILIZATION AND CONTROL

76. General

The carrier company is designed to operate as a unit but platoons and squads may be employed if required. The company is under the operational control of the division transportation officer when it is not attached to division units.

77. Logistical Use

To insure availability for tactical support missions, use of the carriers for logistical purposes will be limited. Generally their logistical use will be restricted to the resupply of combat elements and the evacuation of wounded when the route of approach is covered by enemy ground fire, or the terrain precludes the use of a more economical method. Logistical missions will normally be controlled by the transportation battalion headquarters.

78. Tactical Use

The carrier's mobility, armor protection, communication, and firepower indicate that it will be in constant demand as a complementary weapon for the fulfillment of infantry missions. For tactical operations the company may be attached on a mission basis, or for a specific time period, or may be placed in support of division units. Normally the

company will be attached to an infantry battle group on a mission basis. During periods of attachment to the infantry, employment of the carrier company is prescribed by the infantry commander. For tactical employment, see FM 7-40, FM 7-10 and FM 17-1.

Section IV. COMMUNICATION SYSTEM

79. Radio

The armored carrier company is equipped with vehicular mounted FM (frequency-modulated) radio equipment that provides for company control, liaison with transportation battalion headquarters, and monitorship of the division warning net. When attached or allocated to the assault elements of the division, the radios in the carrier platoon headquarters and the carrier squads are used by the command elements of the assault forces for control purposes.

a. The company commander is provided a radio set AN/GRC-7 which is mounted in his 1/4-ton truck. The radio set consists of a low-power (1-mile range) receiver-transmitter, a medium-power (10-15 mile range) receiver-transmitter, and an auxiliary receiver. This equipment permits the commander to control his company and maintain communication with the battalion simultaneously. When the company is attached to the infantry the company commander uses his radio set to monitor the company net. The information developed enables

him to plan for and conduct vehicle recovery, and to effect prompt coordination with the infantry staff for company logistical requirements and the use of the vehicles. The auxiliary receiver is tied in with the division warning net.

b. The first platoon headquarters vehicle is equipped with a radio set AN/VRQ-3. This set consists of two medium-power receiver-transmitters which are identical to the medium-power receiver-transmitter found in company headquarters. The set is used by the platoon leader for control and supervision of the platoon. When the carrier company is attached or allocated to an infantry battle group, this set provides communication for the group commander to control his forces.

c. Each of the second and third platoon headquarters vehicles is equipped with a radio set AN/GRC-8. This set is identical to the one found in company headquarters except that it does not include the auxiliary receiver. The AN/GRC-8 is used by the platoon leader for control and supervision of the platoon. When the carrier company is attached or allocated to an infantry battle group, the AN/GRC-8 provides communication for the infantry company commander to control his forces.

d. The squad leader's vehicle and one other vehicle in each squad is equipped with a radio set AN/GRC-8. The radio sets in the squad are used for squad control. When the carrier company is attached or allocated to an infantry battle group, the squad radio sets provide communication for the infantry platoon leaders.

80. Wire, Sound, and Visual Communications

The discussion of wire, sound, and visual communications of the truck transport company communications system (pars. 50 and 51) is applicable to the armored carrier company.

Section V. DUTIES OF PERSONNEL

81. General

The general duties of truck company officers and enlisted personnel described in paragraphs 52 through 62 are applicable for identical duty positions and MOS's within the carrier company. The duties must be interpreted and modified in light of the tactical missions the carrier company may be assigned. As the carrier company will participate as a tactical element of the infantry forces, a resume of the company commander's duties in conjunction with attachment is presented. Notwithstanding, the same principles are equally applicable to commanders of transportation truck units. The duties of the carrier company dispatcher, platoon sergeant, and carrier driver are contained in this section.

82. Commander's Duties When Company is Attached

a. Upon notification of a pending tactical role for the carrier company, the company commander should immediately alert his unit and establish liaison with the headquarters with which his unit will participate. When the company is attached to or supporting a tactical force, the carrier company commander functions as a staff officer to the tacti-

cal force commander. The carrier company commander advises on the use of the carrier company. When the company is to work with a battle group, liaison is established through the group S3. It is imperative that liaison be established as early as possible so that the carrier company commander may enter into the early planning stages of the tactical forces. This is done to insure that the most effective use is made of the company's equipment and personnel.

b. Once the carrier company is assigned its mission the company commander must concurrently make an estimate of the situation and enter into the steps of troop leading. His decision as how best to accomplish his mission is given to the group S3 as a recommendation for inclusion in the battle group's plan. The fullest use possible must be made of the company's personnel to insure that the various steps of coordination required are accomplished within the time available.

c. In the event the transportation battalion headquarters is not represented by a liaison agent, the battalion supply officer must be contacted and arrangements made for logistical support.

83. Dispatcher

a. The dispatcher is the noncommissioned operations assistant to the company commander. He is the principal enlisted supervisor of carrier operations, and he assists the company commander in their coordination and control. He is an experienced armor crewman capable of instructing carrier

drivers in carrier operation, map reading, camouflage, first echelon maintenance, care and firing of vehicular weapons, and the care and operation of carrier communications systems. He must be thoroughly familiar with civil laws and military regulations pertaining to the operation of tracked vehicles and motor marches. He must know the organization and characteristics of weapons of the infantry division and the techniques of carrier company employment.

b. As the operations NCO of the company the dispatcher maintains liaison with the platoons to determine the status of equipment and personnel, and logistical requirements. He forwards matters of command directly to the company commander, information on supply items to the supply sergeant, and personnel and administrative data to the first sergeant. Maintenance is coordinated with the transportation battalion maintenance platoon or the supporting maintenance agency as applicable. Any item that affects the company capability is brought to the immediate attention of the company commander.

84. Platoon Sergeant

a. The prerequisites and duties of the carrier platoon sergeant are the same as the carrier company dispatcher, modified as applicable to meet platoon operations. He is trained to assume the duties of the dispatcher.

b. The platoon sergeant is second in command of the platoon and is principal assistant to the platoon leader. He keeps abreast of the situation at all

times and is prepared at any time to assume command. He enforces orders concerning cover, concealment, and discipline. He supervises the distribution of ammunition and fuel and the disposition of the platoon's vehicles.

85. Driver, Armored Personnel Carrier

a. The driver is responsible for the efficient operation of the armored personnel carrier and its first echelon maintenance. He must know how to operate the vehicle's weapon and communication equipment and is responsible for the first echelon maintenance of both.

b. His duties include—

- (1) Operating the carrier in the tactical or logistical movement of personnel or cargo as directed by competent authority. Depending on the situation, orders will be taken from carrier company leaders or from the infantry, tank, or cavalry squadron commanders or leaders when the carrier company is attached to the tactical forces.
- (2) Directing distribution of cargo load and securing cargo against shifting, inclement weather, and loss. Particular care must be exercised to secure cargo against shifting as the operator's compartment is not separated from the vehicle's cargo compartment. Sudden jolts or stops will permit loose items to fly forward and injure personnel in the forward part of the vehicle.

(3) Protecting his vehicle at all times. This includes use of the vehicular weapon, the selecting, whenever possible, of routes of march that cover or conceal movement, and the camouflage of his vehicle.

c. The maintenance of operational records as required, the preparation of accident reports, the licensing of drivers, and other general operational knowledge required is as set forth in paragraph 61, except that the driver is guided by TM 21-306.

CHAPTER 5

MARCHES AND BIVOUAC AND ASSEMBLY AREAS

Section I. MARCHES

86. General

a. Training in marches is one of the most important phases of battalion and company training. The successful operation of battalion units depends on the efficient execution of marches. Units spend considerable time in the execution of tactical and administrative marches. Such training may be concurrent with other training, and should be conducted throughout all phases of training.

b. The unit commander's objective in marching is to move from one location to another, arriving at the appointed time and place with all personnel and equipment in the best possible condition and prepared to accomplish the mission. This requires thorough planning and constant supervision during the execution of the movement. The procedure used in a movement of troops in column is known as march technique.

87. Explanation of Terms

a. *Arrival Time.* Time at which the head of a column or head of an element thereof reaches a designated point.

b. Clearance Time. Time at which the tail of a column, or tail of an element thereof, passes a designated point.

c. Close Column. A column in which vehicles are closed up to a safe driving distance in order to provide maximum control and maximum use of road space.

d. Column Length. The length of roadway occupied by a column or element of a column measured from front to rear inclusive.

e. Density. See traffic density.

f. Gap. (Interval). The interval between successive vehicles or elements in a column or between successive columns as measured from the rear of one element to the front of the following element.

g. Guide. A person who leads or directs a unit or vehicle over a predetermined route or to a selected area.

h. Infiltration March. A convoy in which vehicles are dispatched individually or in small groups at irregular intervals over a preselected route(s).

i. Initial Point. An initial point is any designated place at which a column or element thereof is formed by the successive arrival thereat of its various subdivisions.

j. March Discipline. Observance and enforcement of the rules that govern a unit on the march.

k. March Graph. A time space diagram used in planning and controlling both foot and/or road marches and in preparing or checking march tables.

l. March Order. Instructions issued for movement of personnel and prescribed equipment from one location to another within a stated period of time.

m. March Table. Composite list showing the general organization, and time and space schedule for march movement. It is generally published as an annex to an operation order.

n. March Unit. A unit which moves and halts at the order of a single commander. A truck or carrier platoon is an optimum size march unit.

o. Marker. A flag, stake, or some other object posted at a point to show the location of a unit, a direction or procedure to be followed, a danger point, an obstacle, or a boundary.

p. Open Column. A formation in which distances between vehicles are increased to provide greater dispersion consistent with maintenance of control.

q. Pace Setter. An individual who rides in the control vehicle (pace vehicle) at the head of a column or element thereof to maintain the rate of march.

r. Rate of March. The average movement of miles traveled in any given period of time, including short periodic halts and other short delays. This rate is expressed as miles in the hour (MIH).

s. Release Point. A location at which specified elements of a column or convoy revert to control of their respective commanders.

t. Road Clearance Time. The total time a column or element thereof requires to travel over and clear a given road or point.

u. *Serial*. An element or group of elements within a series which is given a numerical or alphabetical designation for convenience in planning, scheduling, or control of movements by land, water, and air.

v. *Shuttling*. Movement in which vehicles make repeated trips to move troops or supplies.

w. *Strip Map*. Sketch of a route of march which may or may not be drawn to scale, but should include identifying land marks, i.e., towns, bridges, outstanding buildings, crossroads, etc.

x. *Time Gap (Time Interval)*. The period of time measured from rear to front of successive vehicles or elements as they move past any given point.

y. *Time Length*. Time required for a column, or element thereof, to pass a given point.

z. *Traffic Density*. The number of vehicles traveling in the same direction occupying a given length of roadway, usually expressed in vehicles per mile.

88. Standing Operating Procedure

The adoption of a standard operating procedure greatly facilitates the planning and conduct of marches. The battalion commander establishes the necessary procedures for the battalion and requires the company commanders to establish similar procedures for their companies. Orders for a particular movement modify or amplify these standing instructions to fit the requirements of a particular situation.

89. Types of Marches

All marches of the transportation battalion units may be classified as administrative marches or as tactical marches.

a. An *administrative march* is a march in which the primary consideration in the arrangement of troops and vehicles is the comfort and convenience of personnel, and their rapid transit. Since this type of march is made when no enemy activity or interference is expected, emphasis can be placed on speed of movement and on conserving the energy of troops. Whenever practicable, columns are composed of units having the same rate of march, and the integrity of units is maintained. Separate roads are assigned to columns having different rates of march, or their movements by the same route are echeloned with respect to time. Administrative motor marches are made in accordance with division SOP.

b. Units and vehicles on a *tactical march* are so arranged in the column as to aid in their employment against the enemy. The chief influence on dispositions for the tactical march is the composition and nearness of hostile ground forces and aviation. When hostile forces include armored elements, such elements may make contact from any direction not protected by friendly forces or terrain barriers.

90. Types of March Columns

The transportation battalion units normally use one of three types of march columns: open column, close column, or infiltrating column.

a. The *open column* formation is particularly applicable to tactical moves made during daylight without air cover, such moves being made when time is so important that lack of secrecy and the possibility of some losses from air attack are justified. Enough dispersion is made to prevent one shell from damaging more than one vehicle. Open column may also be used to advantage when moving with driving lights at night, or with blackout lights on moonlit nights on good roads. This formation provides the best compromise between the requirements of a short time length of the column and wide dispersion of vehicles within the column.

b. The *close column* formation is used when a large volume of traffic must be moved in the shortest possible time. This formation is also useful for night moves under blackout conditions, particularly over poorly marked routes, when gaps between vehicles must be short enough for drivers to maintain visual contact with the preceding vehicles. Normally, the close column formation during daylight is not justified except when the column has air cover or is otherwise secure from hostile air attack. This method of marching permits utilization of the maximum traffic capacity of the roads. However, since it does not provide dispersion against enemy observation and attack, traffic bottlenecks are likely to occur at critical points along the route.

c. An *infiltrating column* may be used when enough time and road space are available and secrecy, deception, and maximum dispersion are desired. This formation provides the best passive

protection against enemy intelligence efforts. Because of extended gap between vehicles, column control is difficult, and routes must be carefully marked in advance to prevent drivers becoming lost.

91. Planning the March

Adequate planning insures the successful conduct of a march. Items included in this planning are—

- a. Routes.
- b. Route reconnaissance.
- c. Quartering party and trail party.
- d. Guides and markers.
- e. Formation for the march.
- f. Designation of initial point (or points) and release point (or points) for battalion units.
- g. Rate of march.
- h. Distance.
- i. Phase lines and other control points.
- j. Halts.
- k. Security measures to be adopted.
- l. Methods of resupply.

92. Routes of March

Higher headquarters usually designate a route of march for the battalion. When the battalion is operating alone, the battalion commander selects the route.

93. Warning Orders for Marches

A warning order, which is issued before the detailed march order, is used to alert troops and allow

them time to prepare for the march. Warning orders, when possible, include the nature of the move, the general purpose of the operation, the time of departure, and the destination. Warning orders insure that the company will be ready to start the move on time. When pertinent, instructions to the quartering party should be included in the warning order. It may also include other pertinent information which does not conflict with secrecy requirements.

94. Route Reconnaissance

As soon as possible after receipt of a movement warning order, a route reconnaissance party is dispatched to confirm and supplement data obtained from other sources. The sources of information include reports from higher headquarters, and map, air, and ground reconnaissance. A combination of air and ground reconnaissance is the most thorough and reliable. The extent of route reconnaissance depends upon such factors as distance to be traveled, duration of trip, or type of equipment to be used. Reconnaissance information may include—

a. Road Information.

- (1) Bridges: capacity, location, and bypasses.
- (2) Fords: location, depth of water, and condition of bottom, banks, and approaches.
- (3) Roads: type, condition, width, and critical points.
- (4) Any details of the terrain that may be of value to the commander.

b. Logistical Information.

- (1) Maintenance facilities available.
- (2) Class III supply points.
- (3) Messing areas or facilities.
- (4) Bivouac areas.
- (5) Medical facilities.
- (6) Communications available.

c. Control Measures.

- (1) Route restrictions.
- (2) Location of highway regulation points and traffic control posts.
- (3) Guards and guides required.
- (4) Traffic conditions.

95. Quartering Party

Any move by a unit or organization to a new area should be preceded by a quartering party whenever possible. The mission of the quartering party is to reconnoiter the new area and plan for the disposition of the unit and its local security. When a company is moving as part of the battalion, the company quartering party will accompany the battalion quartering party. Operations of the quartering party are normally covered by SOP.

96. Trail Party

The trail party follows the march column. It includes the personnel and vehicles necessary to assist the trail officer in—

- a.* Inspecting the departed area and correcting and reporting any deficiencies.

- b.* Preventing straggling.
- c.* Placing necessary guards, flags, or lights to warn traffic approaching from the rear.
- d.* Picking up guides and route markers.
- e.* Disposing of disabled vehicles.

97. Formation for the March

In a tactical march, the formation is governed by the tactical situation. Troops are arranged in the expected order of employment.

98. Organization of Battalion Column

a. The battalion column is organized into serials to facilitate control by the battalion commander and to simplify the issuance of orders. Units which occupy the same general initial location and which can be governed by the same set of instructions (initial point, route, destination, rate of march, etc.) are organized in one serial. The company will normally constitute one serial.

b. Serials are subdivided into march units. The number of march units is determined by the probable future mission of the unit and the number of vehicles which can be controlled readily by a single commander during the march. The platoon will normally constitute a march unit.

c. Serials and march units are numbered in the sequence of their expected arrival at the destination. Normally the battalion headquarters is near the center of the column, and service elements are at the rear.

99. Initial Point

When the company is marching as a part of a larger unit, the initial point for the larger unit is designated by the commander of that unit. The company commander also designates another initial point, short of the larger unit IP, and sets a time for the company to reach and clear it. The company IP is the point where company units form a column or serial. It must be far enough from the assembly or bivouac area for the column to gain the specified rate of march by the time it arrives at the IP. To do this the company commander has a reconnaissance made of the route from the company IP to the larger unit IP. This route is measured, and the time it takes the leading vehicle to travel this distance is determined. This time is subtracted from the time the leading vehicle must pass the larger unit IP to determine the starting time from the company IP.

100. Rate of March

a. The rate of march for armored vehicle columns, or for mixed columns of armored vehicles and wheeled vehicles, is 12 to 20 miles in the hour during daylight, and 8 to 10 miles in the hour during darkness on good roads.

b. The factors that determine the exact rate of march are—

- (1) Grades, sharp turns, cities, towns, and other bottlenecks along the route.
- (2) Surface conditions such as dust, ice, mud, and snow.

- (3) Condition of vehicles.
- (4) Condition of drivers and crews.
- (5) State of march training and degree of experience of individuals and units.
- (6) Weather conditions that affect visibility.
- (7) Light conditions that affect visibility.

c. Rates of 15 miles in the hour or better for sustained periods can be attained only under the best conditions. To realize this speed, routes of march must be comparatively level and should avoid cities, towns, sharp turns, and other bottlenecks; the road should be hard-surfaced and free from ice and snow; armored vehicles and other vehicles must be in good condition and should not have been subjected to long periods of operation; and crews, particularly drivers, should be rested and at their peak of alertness.

101. March Distances

During daylight the normal gap between vehicles in the column is 50 to 100 yards, depending on the situation. This interval may be increased if the enemy has the ability of employing mass destruction weapons. At night, the normal interval between vehicles is that at which each driver can maintain visual contact with the preceding vehicle. The interval between march units in the column, expressed as time interval, may be one minute or as directed.

102. Phase Lines

Phase lines are clearly distinguishable terrain features along the route of march; for example,

streams, crossroads, and well-defined ridges. They are used to control the movement of two or more columns, including the flank guard units. When the heads of columns, usually the control vehicles, reach phase lines they report their crossing and continue the march; they halt at these lines only when ordered to do so by higher headquarters.

103. Halts on the March

a. Units on the march normally make scheduled 10-minute halts each hour or 15-minute halts every 2 hours. It is advisable to schedule a 10-minute halt at the end of the first 50 minutes of the march. At all scheduled halts, all march units and serials halt simultaneously at the specified time; they make no attempt to close up gaps in the column. Vehicle drivers perform their scheduled at-the-halt maintenance operations.

b. At halts, the march unit and serial commanders make sure that—

- (1) Personnel are posted in the front and rear of each march unit to direct traffic.
- (2) Distance between vehicles is correct. (Units do not normally close up at the halt.)
- (3) All vehicles and personnel remain on the right side of the road and keep the traveled portion of the road clear at all times.
- (4) Ground and air security are maintained.
- (5) Vehicle maintenance is performed by the driver of each vehicle.

- (6) Vehicle personnel are alert to receive and relay signals for the resumption of the march. This is particularly important at night.
- (7) Maintenance personnel are checking the mechanical condition of all vehicles in the unit.
- (8) All vehicles move out at the same time from the halt.

c. Halts for refueling are scheduled in advance to allow march unit commanders to make definite plans for refueling.

d. During tactical marches when contact with the enemy is imminent, or during prolonged halts, it is often desirable to shorten the column. When the terrain permits, units do this by moving into assembly areas on each side of the road. This is called *coiling up*. In an administrative march, the units are placed so that they can easily move back onto the road, faced in the correct direction to resume the march. If tactical considerations govern, companies remain prepared to move in the direction of the expected action.

104. Security

a. Units on a tactical march may be preceded by a *covering force*. The mission of such a force is the early development of the situation, including the crushing of resistance when possible or the seizure of a critical terrain feature. Such a force precedes the column advance guard and provides its own security. It normally advances by bounds.

b. Units on a tactical march as preceded by an *advance guard* whose mission is to prevent delay of the main body and to protect the main body against surprise attack. The size, composition, and disposition of the advance guard vary with the mission, terrain, and tactical situation.

c. Units on a tactical march protect their flanks by *flank guards*, especially when no protection is provided by adjacent friendly troops. Flank guards cover routes of approach that might be used by hostile forces to attack the flanks of the column. A flank guard may travel on a route parallel to that of the main body, and be distributed in depth to ward off or give warning of enemy attacks; or echelons of the flank guard may move by bounds from one position to another, occupying terrain features from which good observation is possible.

d. Units on a tactical march employ a *rear guard*, which follows and protects the main body on the march. A rear guard is used to defeat or delay hostile forces attacking the rear, to protect the trains, and to collect stragglers.

e. An observer in an Army aircraft is one of the best sources of information for the unit commander on the march.

f. During the march and at the halt, the unit provides its own *security against air attack*. It may do this by placing an air sentry on each vehicle, and by continuous manning of antiaircraft weapons. Passive security measures against air attack include the dispersion of vehicles and the maintenance of

proper gap, both during the movement and at the halt. In maintaining gap, vehicles are not allowed to close up at halts, obstacles, and traffic bottlenecks. Commanders and staff officers, while moving along the column, constantly check these security measures.

g. Strict observance of *communication security* is necessary to insure adequate protection against enemy communication intelligence activities such as radio interception, position finding, traffic analysis, and cryptanalysis.

105. March Orders

If a company is marching as part of a larger unit, the company march order is based on the march order of the higher headquarters. The order includes these items (if they are not covered in unit standing operating procedure)—

- a.* Destination.
- b.* Route.
- c.* Rate of march (may be SOP)
- d.* Order of march.
- e.* Location of the initial point.
- f.* Time of passing the initial point.
- g.* Security (may be SOP).
- h.* Scheduled halts (may be SOP).
- i.* Gap between vehicles and time interval between march units (may be SOP).
- j.* Communication.
- k.* Location of the command post during the march (may be SOP).
- l.* Traffic control measures (may be SOP).

m. Location of the release point.

n. Time each march unit is to clear the release point and any other critical points along the route of march.

106. Control and Supervision of the March

a. Training and march discipline are the greatest factors in the control of a company on the march. Close attention by all officers and NCO's is necessary to make sure that the column is formed according to plan. Means of controlling the company on the march are—

- (1) Detailed supervision.
- (2) An officer or NCO at the IP, critical points, and the RP (to check arrival of units, order of march, rates of march, time length of the column, clearance times, and march discipline).
- (3) A pace setter at the head of each march unit.
- (4) Well-marked routes (guides and markers).
- (5) Phase lines and check points.
- (6) Radio (if permitted by security).
- (7) Hand signals.

b. The company commander, platoon leaders, and NCO's supervise the movement of the company on the march. Items to check are the presence of all vehicles in the column, their condition, gap speed, and the general conduct of the march. Necessary corrections are made on the spot. All officers and noncommissioned officers of the company are responsible for supervising the march column.

107. Communication on the March

When communication security permits, radio is the principal means of communication during a march. Visual signals—particularly arm-and-hand signals and flashlight signals—are used extensively for column and vehicle control. When marching as part of a larger unit, the company maintains liaison with the preceding serial. The liaison personnel keep the commander informed as to the preceding serial's time of departure and time of clearing the IP. Army aircraft may be provided to supplement organic means of communication during the march.

108. Night Marches

a. In the combat zone, most marches near the forward areas are conducted during the hours of darkness. Practice night marches over unfamiliar terrain are the best training for night marching.

b. Night marching requires detailed planning. Route reconnaissance and road guides and markers assume greater importance. Darkness increases the difficulty of control, and requires decreased speed, decreased gap, and increased reconnaissance and security. During halts on a night march, either the assistant driver or a passenger of each vehicle dismounts and contacts the preceding vehicle in the column to keep contact.

c. The gap between vehicles on night marches varies with the terrain, weather, and visibility. As a guide, this distance is the maximum at which the driver can see the blackout taillight of the preceding vehicle. Gap may be increased during bright

moonlight and on smooth, straight, open roads, whereas hilly and rough terrain, bad roads, rain, fog, dust, or complete darkness force the column to close up to maintain contact.

109. Company Marching as Part of the Battalion

a. When marching as part of a larger unit, the company commander checks the column at irregular intervals and corrects any violation of march discipline. The company's leading vehicle acts as a control vehicle, and an officer or NCO rides in it to make sure that the prescribed gap is maintained as closely as traffic and road conditions permit. This vehicle may be preceded by another officer or non-commissioned officer, who serves as the company pathfinder or navigator. The officer or NCO in the control vehicle reports to higher headquarters as required when phase lines and other designated points are reached and cleared.

b. When unscheduled halts occur, the company commander ascertains the cause and probable duration of the halt. Within the company, each platoon leader goes to the head of the preceding platoon, and each vehicle commander checks the vehicle directly ahead of him. At night these precautions prevent one vehicle or driver from holding up the whole column.

110. Company Marching Alone

When a company is assigned a mission to march separately, the company commander makes up a map study of his route and supplements it with a route reconnaissance. He issues a warning order

to his leaders to prepare for the march. He decides on the IP, formation of the march, halts, and gap between vehicles, and arranges for route marking and road guides.

111. Maintenance on the March

Any vehicle falling out of the column is promptly moved to the side of the road for immediate repair. If not immediately repairable, the vehicle is left to be repaired or evacuated by the personnel of the battalion maintenance platoon. The driver remains with his vehicle. Dependent upon signal security, radio contact may be made with the maintenance platoon, providing information relative to the type of repair required, and location of the disabled vehicle.

Section II. BIVOUAC AND ASSEMBLY AREAS

112. General

a. A bivouac area is an area in the field where troops rest and prepare for further movement. Although in a bivouac area the possibility of contact with the enemy, except by air and long range surface weapons, is relatively remote, normal security measures are taken. Troops are not usually expected to be committed to battle from this position.

b. An assembly area is an area where units assemble to organize for an attack or to regroup after an attack, landing, or movement. In this area the company normally services and repairs vehicles, resupplies, and feeds troops. The assembly area

when used to prepare for an attack is normally well forward and may be within artillery range.

113. Desirable Characteristics of Bivouac and Assembly Areas

a. Desirable characteristics of bivouac and assembly areas include—

- (1) Concealment from air and ground observation.
- (2) Cover from direct fire.
- (3) Sufficient hardstand.
- (4) Good exits and entrances.
- (5) Ample space for dispersion of vehicles, personnel and equipment.

b. Overhead concealment is important if the unit intends to remain in the area any length of time. Camouflage of vehicles, equipment, entrances, and exits is stressed to prevent the enemy from detecting the location of the unit.

c. Consideration should be given to separate bivouac or assembly areas for platoon and/or companies when fighting under atomic warfare conditions.

114. Organization of Bivouac or Assembly Areas

a. If the company is moving as part of the battalion, the battalion quartering party commander designates the area the company will occupy.

b. If the commander of the company quartering party determines that the new area is unsatisfactory, he immediately notifies the battalion quartering party commander and requests another area.

If a change cannot be made in the time available, the company is put under cover on its arrival, and adjustments for a different area are made later. If the company is making an independent move, the company quartermaster party commander will reconnoiter the area and select areas for the platoons of the company. The platoon representatives further organize their assigned areas. The company quartermaster party commander also selects the location of the company command post and develops a vehicle and personnel circulation plan that disturbs the existing terrain pattern as little as possible and allows rapid movement into the area. It is desirable for the CP and any administrative and service elements to be centrally located in an area near the main axis. Suitable working conditions for necessary maintenance must also be considered.

115. Release Point

a. The release point should be at or near the entrance to the new area to be occupied and should be easily recognized from the ground. When the company is marching as a part of the battalion, it will be released from battalion column control at the battalion release point and march as a march unit to the company release point. Release points may be designated in advance if the necessary information is available.

b. On arrival at the company release point, platoons are met by guides from the quartermaster party and promptly moved into their assigned area. In all cases guides stay on the alert to recognize their respective units, so that they may lead them from

the column to their assigned areas without interrupting the march of other units.

116. Occupation of a Bivouac or Assembly Area

When the company arrives at a new area, it is essential that units move off the road without halting. The posting of guides, the selection of routes, and the allocations of areas by the quartering party are all done to enable the company to clear the route of march without halting and without obstructing the movement of other units. This requires aggressive action by all officers, noncommissioned officers, markers, and guides. To assist in the occupation of a bivouac or assembly area, the quartering party, within its capabilities, improves entrances and routes into the area. The area is organized so that the leading platoon in the company march unit is farthest along the route.

117. Security in Bivouac and Assembly Areas

a. Security in bivouac and assembly areas is obtained by tactical disposition of troops, concealment, utilization of natural obstacles, local security measures, reconnaissance, and observations or listening posts covering critical terrain features and avenues of approach. When there is a lack of concealment, the company increases its dispersion.

b. When the company is operating as part of the battalion, the battalion commander divides the perimeter among all units of the battalion. He assigns boundaries between adjacent units and designates specific contact points at which liaison will be established and maintained. He prepares plans for inte-

grated defense of subunits. All instructions issued by the battalion commander are immediately disseminated, so that all elements of the defensive system can function properly.

118. Communication in Bivouac and Assembly Areas

The signal communication system of the armored carrier company in a bivouac or assembly area consists of messengers, wire, and visual means. For communication security, wire and runners are used in lieu of radio.

119. Departure From Bivouac and Assembly Areas

a. Upon receipt of a warning order for a move, the company commander alerts the company and the unit prepares for the move.

b. When preparations are complete, each platoon reports its readiness to move. When all platoons have reported, the company commander reports the company status to the battalion.

c. Liaison is established with the preceding unit in the march column. Through a liaison agent, the company commander is informed as to the progress of this preceding unit. This allows the company to cross the IP at the prescribed time. The use of the liaison agent is particularly important at night.

CHAPTER 6

TRAINING

120. General

The primary mission of military training is to produce soldierly qualities and traits in individuals to prepare them for combat. The secondary mission of training is to imbue personnel with the understanding, skills, and required teamwork that are necessary to enable the transportation battalion or company to provide efficient transportation service in support of the infantry division. Appendix 1 provides a list of references on training publications applicable to the transportation battalion.

121. Phases of Training

a. Basic Combat Training. During this phase the soldier is taught the fundamentals of infantry combat, including squad tactics. He also receives instruction in military skills common to all arms and services, such as first aid, field sanitation, and close order drill. ATP 21-114 establishes specific objectives and training requirements for training during this phase.

b. Advanced Individual Training. During this phase, the soldier trains for his MOS such as clerk, driver, dispatcher, or truckmaster. Whenever service schools are available for MOS technical train-

ing, they should be utilized. Army Training Programs and supporting Army Subject Schedules establish specific objectives and training requirements for Branch (or general) and MOS technical training conducted during this phase.

c. Basic Unit Training. During this phase, trained individuals are formed into effective teams. The teams learn how to operate as platoons, which, in turn, learn how to work together as companies. A smooth-working company-sized team is the end product of basic unit training.

d. Advanced Unit Training. During this phase the company teams are welded into a battalion. This period is ideally spent with the whole organization in actual operation. Through the media of field exercises and problems all components of the unit, including administrative elements, work as a team under conditions which simulate actual combat. During this period all phases of maintenance, communication, administration, messing, field sanitation, supply, defense against any possible enemy and all operational procedures should be employed. The commander during this period can judge the capability of his unit to perform assigned mission(s). A critique must be held following each exercise or problem. During the critique emphasis should be placed on the purpose of the problem or exercise, good and bad points observed, and specific corrective action to be taken.

e. Field Exercises and Maneuvers. Field exercises and maneuvers are accomplished in accordance with the provisions of ATP 20-5 and current direc-

tives. Training objectives established for this training are predicated on those encompassed in advanced unit training.

122. Post Cycle Training

Training does not stop with completion of the above phases. Post cycle training includes but is not limited to the following:

a. Refresher Training. The main purpose of refresher training is to correct deficiencies found during or after completion of the previous training and to maintain levels of proficiency attained. For example, while on a field exercise a unit may show that it is not prepared for a gas attack—or is slow in meeting it. As soon as possible after the field exercise is over, this unit will take refresher training in defense against chemical warfare.

b. Cadre Training. Normally, new units will be informed by cadre selected from other Transportation Corps units which are already in training or which have completed training. Cadre training will be accomplished according to Transportation Corps Army Training Programs.

c. Training for Special Operations. Training for special operations consist principally of additional training for extremes in terrain or climatic conditions, amphibious, or task force type operations.

123. Supervision of Training

a. Higher units are responsible not only for their own training but also that of assigned and attached subordinate units.

b. Unit commanders are responsible for the training of personnel in their units. Training includes individual and unit training in both military and technical fields.

124. Coordination of Training

Training must be a continuous, comprehensive effort. Its aim is to produce a smooth-running organization with maximum speed and efficiency. To this end, all individuals must be trained as both soldiers and technicians.

125. Training Management

a. *Preparation.* Every effort must be made to insure that instruction, whether in the classroom, in the field, or on the job, is carefully prepared and effectively presented. Fundamental training doctrines and principles are outlined in FM's 21-5 and 100-5, and TF 7-295. Detailed instructions for transportation training are presented in field manuals, technical manuals, and Army training programs and supporting Army Subject Schedules of the Transportation Corps 55-series. Special training instructions are published in training circulars and periodic training directives. Department of the Army publications, training films, film strips, and graphic training aids are listed in DA Pamphlets 310-1, 108-1, 310-3 and 310-5. Additional training aids should be prepared as necessary to accomplish the training mission.

b. *Equipment.* Newly-activated transportation units are normally furnished enough equipment to permit effective training. If the equipment is in-

adequate, every effort must be made through proper supply channels to obtain whatever is necessary. If needed equipment is still not available, expedients are contrived and used. The training schedule should be arranged so that available equipment can be rotated among using units.

c. Training Time. A general breakdown showing time to be devoted to each subject during a specific phase of training is given in Army training programs. Night operations, bivouacs, and field exercises ordinarily require additional time. Specific information on the prescribed length of each training phase is published in pertinent Army training programs.

d. Training Areas. Although some transportation training can be conducted almost anywhere, a training area should approximate the terrain and climate of the probable theater of operations. Large training areas are necessary, so that training in such subjects as driver training and convoy operations can be accomplished. Training areas should contain a wide variety of soil and terrain conditions; numerous types of roads and bridges; and lakes and gullies of various types and widths.

e. Supervision. Training requires active personal supervision by higher echelon commanders and their staffs, as well as by the battalion commander and his staff. Each company commander constantly supervises the training of his unit. Administrative personnel must perform their work correctly and promptly, so that details and backlog do not interfere with training. If the battalion com-

mander has a competent administrative staff, he can devote most of his time to the supervision of training, and a minimum to administrative details.

f. Inspections.

- (1) Each command level is responsible for the training of its subordinate units. Frequent training inspections are made to check on the progress of training, and to determine what must be stressed to meet required standards. Inspections cover all phases of training. Transportation Corps troops are first tested for their military and technical proficiency, and then on their abilities as members of a transportation unit. Actual successful performance by the trainees is the only true test of training.
- (2) Inspecting officers must be just, impartial, and constructive in their criticism. They must assist and teach, as well as uncover faults. Inspections are timed to avoid interfering with the training program. In this connection, it is desirable for several inspectors to conduct their inspections simultaneously.

126. Concurrent and Integrated Training

a. General. To make training more realistic and effective, arbitrary boundaries between training phases should be avoided. Each subject is related to other subjects, and all subjects are integrated into the team mission. This entails, to some degree, conducting basic and advanced individual, special-

ist, and unit training concurrently. Review of basic subjects are incorporated regularly in the progressive training phases. In all exercises, tactical requirements are included, such as providing security for bivouac areas and the protection of convoys en route from both ground and air attack. Throughout all phases of training, and particularly during unit training and field exercises, initiative and a sense of responsibility must be developed in officers, non-commissioned officers, and others who show potential leadership ability. Each commander includes leadership exercises in all training phases. During periods of tactical and technical training, command is decentralized and interference with subordinate commanders is kept to a minimum. Everyone is instilled with the importance of making decisions and acting quickly in emergencies not covered by specific orders.

b. Training Subjects. Training subjects and hours are prescribed by Army training programs. Other subjects to be included as concurrent and integrated *training* are also shown in pertinent Army training programs.

c. Radiological Defense. All military personnel receive orientation in radiological defense. Unit radiological defense specialists receive additional indoctrination and training in unit schools or in radiological defense schools conducted at a higher level. Courses of instruction and training phases are described in SR 350-110-1. In addition to required indoctrination courses, unit commanders encourage frank and open discussions of unclassified

atomic energy information in troop information programs and similar conferences. This instills the proper respect for atomic weapons, and also refutes irresponsible and misleading rumors.

d. Tactical Training. Closely tied-in to all transportation training is progressive instruction in combat principles, applied particularly in conjunction with security on the march and in bivouac. Infantry methods and formations, prescribed in FM's 7-10, 7-17, 7-20 and 21-5, and armor methods should be used as a guide, but they must be adapted to transportation unit strength, armament, and organization.

127. Technical Training

a. General. Technical training of transportation battalion personnel in various required fields, (i.e. wheeled and track vehicle mechanics; radio repairmen; mess stewards and cooks; and truckmasters) is conducted according to Army training programs. Even though the specialist or technical man has been adequately trained in the unit or a service school, continual training must be stressed in order that technical proficiency is maintained at the highest level.

b. Driver Training.

- (1) Driver training must be initially conducted during the advanced individual training phase and continued throughout all phases of unit and post cycle training. TM's 21-300, 21-301, 21-305, and 21-306 (for titles see app. I) should be used as a

guide for selection, training, and qualification of drivers.

- (2) The transportation battalion must be ready to assist infantry commanders in cross training infantry troops as APC drivers.

c. Maintenance Training.

- (1) First echelon maintenance (driver maintenance) training is conducted concurrently with driver training. Appropriate technical manuals covering maintenance of vehicles should be used as a guide.
- (2) Second echelon maintenance training is started in the advanced individual training phase. Individuals are trained in the appropriate service schools or as on the job trainees assisting qualified personnel. Training is continued by units based upon TM 9-2810 and appropriate Department of the Army maintenance directives.

128. Training Records and Reports

Each unit will maintain training progress records and will submit training reports to the next higher unit. Training records maintained by the higher echelons may be unit reports of training accomplished or consolidations of these records over predetermined periods. A sample progress chart for company training is shown in FM 21-5.

129. Training References

Training references appropriate to the transportation battalion are listed in appendix I.

APPENDIX I

REFERENCES

1. Field Manuals

FM 5-10	Routes of Communications.
FM 5-15	Field Fortifications.
FM 5-20	Camouflage, Basic Principles.
FM 5-20B	Camouflage of Vehicles.
FM 5-25	Explosives and Demolitions.
FM 5-34	Engineer Field Data.
FM 7-10	Rifle Company, Infantry Regiment.
FM 7-40	Infantry Regiment.
FM 7-100	Infantry Division. (when published)
FM 11-17	Tactical Communications Center Operation.
(O) FM 11-151	Defense Against Electronic Jamming.
FM 17-1	Armor Operations. (when published)
FM 17-20	Armored Infantry Battalion, Company and Platoon. (when published)
FM 17-33	Tank Battalion.
FM 17-35	Reconnaissance Battalion Armored Division.

FM 19-25	Military Police Traffic Control.
FM 19-90	The Provost Marshal.
FM 20-15	Tents and Tent Pitching.
FM 20-32	Employment of Land Mines.
FM 21-10	Military Sanitation.
FM 21-11	First Aid for Soldiers.
FM 21-15	Individual Clothing and Equipment.
FM 21-18	Foot Marches
FM 21-26	Map Reading.
FM 21-30	Military Symbols.
FM 21-31	Topographic Symbols.
FM 21-40	Defense Against CBR Attack.
FM 21-41	Soldiers Manual for Defense Against CBR Attack.
FM 21-48	CBR Training Exercises.
FM 21-75	Combat Training of the Individual Soldier, and Patrolling.
FM 22-10	Leadership.
FM 25-5	U. S. Rifle, Caliber .30, M1.
FM 23-7	Carbine, Caliber, .30, M1, M1A1, M2, and M3.
FM 23-41	Submachine Gun, Caliber .45, M3 and M3A1.
FM 23-55	Browning Machine Guns, Caliber .30, M1917A1, M1919A4, M1919A4E1, M1919A6, and M37.
FM 23-65	Browning Machine Gun, Caliber .50 HB, M2.

- FM 24-5 Signal Communications.
- FM 24-18 Field Radio Techniques.
- FM 24-20 Field Wire Technique.
- FM 25-10 Motor Transportation, Operations.
- (CM)FM 30-5 Combat Intelligence.
- FM 30-15 Examination of Personnel and Documents.
- (C)FM 30-16 Technical Intelligence.
- FM 31-15 Operations Against Airborne Attack, Guerilla Action and Infiltration.
- (C)FM 31-20 U. S. Army Special Forces Group (Airborne) (U).
- (O)FM 33-5 Psychological Warfare Operations.
- (O)FM 100-5 Field Service Regulations; Operations.
- (O)FM 100-10 Field Service Regulations; Administration.
- FM 100-15 Larger Units.
- (O)FM 101-5 Staff Officers Field Manual: Staff Organization and Procedure.
- (O)FM 101-10 Staff Officers Field Manual: Organizational Technical and Logistical Data.

2. Technical Manuals

- TM 3-220 Decontamination.
- TM 5-240 A Guide to the Compilation and Revision of Maps.

TM 5-641	Inspections and Preventive Maintenance Services, Ranges, Bake Ovens and Burners for Other Mess Equipment.
TM 5-9990	Kit, Instruction, Map Reading.
TM 9-1940	Land Mines.
TM 9-2002	3.5 Inch Rocket Launchers M20 and M20B1.
TM 9-2810	Tactical Motor Vehicle Inspections and Preventive Maintenance Services.
TM 9-7002	Full Track Armored Infantry Vehicle T59.
TM 9-7003	Miscellaneous Components for Full-Track Armored Personnel Carrier M59 (T59).
TM 10-401	Food Service Supervision.
TM 10-402	Mess Management.
TM 10-402A	Mess Management Workbook.
TM 10-405	The Army Cook.
TM 10-405A	Cook's Workbook.
TM 10-410	Bread Baking.
TM 10-412	Recipes.
TM 11-284	Radio Sets AN/GRC-3, -4, -5, -6, -7, and -8.
TM 11-287	Radio Sets AN/VRQ-1 AN/VRQ-2, and AN/VRQ-3.
TM 11-333	Telephones EE-8, EE-8-A, and EE-8-B.
TM 11-2250	Reel Equipment CE 11.
TM 12-205	The Army Postal Service.

TM 12-260	Army Personnel Tests and Measurement.
TM 14-600	Administration of Government Life Insurance; United States Government Life Insurance and National Service Life Insurance.
TM 21-300	Driver Selection and Training.
TM 21-301	Driver Selection, Training, and Supervision, Full-Track Vehicles.
TM 21-305	Driver's Manual.
TM 21-206	Manual For the Full-Track Vehicle Driver.
TM 38-230	Preservation, Packaging, and Packing of Military Supplies and Equipment.

3. Army Regulations

AR 25-20	Investigation and Processing of Claims.
AR 30-41	Field Rations.
AR 30-2210	Rations.
AR 32-20	Personal Clothing and Individual Equipment for Enlisted Personnel.
AR 55-108	Control of Personnel Traveling on Public Carriers.
AR 55-135	Transportation of Troops; Railway Equipment.
AR 55-445	Debarkation of Troops from Transports.

AR 55-705	Movement Control.
AR 340-15	Correspondence.
AR 345-210	Records Administration; Files Maintenance Procedures.
AR 345-274	Records Administration; Maintenance and Disposition of Intelligence and Security Administration Files.
AR 380-5	Safeguarding Security Information.
(C) AR 381-1	Control of Dissemination and Use of Intelligence and Intelligence Information.
(C) AR 381-25	Army Intelligence Collection Instructions.
AR 385-55	Prevention of Motor Vehicle Accidents.
AR 385-63	Regulations for Firing Ammunition for Training, Target Practice, and Combat.
AR 611-201	Manual of Enlisted Military Occupational Specialities.
AR 611-210	Selection and Classification of Specialists.
AR 614-46	Assignment to Field Operations Intelligence Duties.

AR 700-38	Unsatisfactory Equipment Report.
AR 700-51	Logistic Responsibilities.
AR 700-58	Report of Damaged or Improper Shipment.
AR 700-2300-1	Motor Vehicles.
AR 711-5	Organization, Operation, and Responsibilities.
AR 711-10	Supply Economy.
AR 711-50	Common Classification Code.
AR 725-750	Transportation Corps Sources of Supply.
AR 735-5	General Principles and Policies.
AR 735-10	Principles and Policies: Accounting for Lost, Damaged, and Destroyed Property.
AR 735-11	Accounting for Lost, Damaged, or Destroyed Property.
AR 740-15	Preservation, Packaging, and Packing.
AR 743-8330-1	Care and Preservation in Storage of Leather, Leather Bindings, and Leather Products.
AR 750-15	Field Maintenance Program Performance (Reports Control Symbol CSGLD-456 (R5)).

4. Special Regulations

- SR 30-20-10 Refrigerated Warehouse Facilities; Fixed and Prefabricated.
- SR 32-20-1 Clothing Allowance System.
- SR 32-162-5 Fitting of Men's Service Uniform.
- SR 55-720-1 Preparation for Oversea Movement of Units (POM).
- SR 55-720-2 Movement of Units Within Continental United States.
- SR 320-5-1 Dictionary of United States Army Terms.
- SR 385-10-40 Accident Reporting.
- SR 605-105-5 Commissioned and Warrant Officer Personnel Military Occupational Specialties.
- SR 780-17-1 Missions: Transportation Corps.

5. Tables of Organization and Equipment

- TOE 55-75 Transportation Battalion, Infantry Division.
- TOE 55-76 Headquarters, Headquarters and Service Company, Transportation Battalion, Infantry Division.
- TOE 55-77 Transportation Truck Company.
- TOE 55-78 Transportation Personnel Carrier Company

6. Modification Work Order

MWO ORD G280-W1 Full Tracked Armored Personnel Carrier M59; Welding of Road Wheel Arm Bumper (Spring) Assemblies to Bumper Brackets.

MWO ORD G1-W46 Full Track Armored Infantry Vehicles T59 and 2½-ton, 6x6, Trucks M135, M211, M215, M217, M220, M221, and M222; Installation of New Transmission Control-Valve Outer Body.

MWO ORD G1-W64 2½-ton, 6-6, Trucks M135, M211, M215, M217, M220, M222, Truck T r a c t o r M221; and Armored Full Tracked Personnel Carrier M59; Modification o f Transmission Front and Rear Planetary Units.

7. Department of the Army Pamphlets

- | | |
|--------------|---|
| DA Pam 16-5 | Duty-Honor-Country. Series I. |
| DA Pam 16-6 | Duty-Honor-Country. Series II. |
| DA Pam 16-7 | Duty-Honor-Country. Series III. |
| DA Pam 16-8 | Duty-Honor-Country. Series IV. |
| DA Pam 16-9 | Duty-Honor-Country. Series V. |
| DA Pam 16-10 | Duty-Honor-Country. Series VI. |
| DA Pam 20-75 | Supply Discipline. |
| DA Pam 21-46 | Behind Enemy Lines. |
| DA Pam 30-26 | A Guide to the Collection of Technical Intelligence. |
| DA Pam 108-1 | Index of Army Motion Pictures, Film Strips, Slides, and Phono-Recordings. |
| DA Pam 310-1 | Index of Administrative Publications. |
| DA Pam 310-3 | Index of Training Publications. |
| DA Pam 310-5 | Index of Graphic Training Aids and Devices. |

8. Technical Bulletins

- | | |
|----------|---------------------------------------|
| TB QM 50 | Food Service Drive: Mess Management. |
| TB QM 51 | Measurement of Plate Waste in Messes. |

- TB MED 81 Cold Injury.
 TB 9-7002-1 Armored Full-Track Personnel Carrier M59; Procedure for Deenergizing Infrared Periscope Power Pack.

9. Supply Manuals

- ORD 7 SNL G-280 Carrier, Personnel, Full Tracked, Armored M59.
 ORD 8 SNL G-280 Carrier, Personnel, Full Tracked, Armored M59 (T59).

10. Lubrication Orders

- LO 9-7002 Infantry Vehicle, Armored, Full Tracked, M59 (T59).

11. Army Subject Schedules

- ASubjSed 6-4 Combat Intelligence.
 ASubjSed 7-2 Rifle Squad Tactical Training.
 ASubjSed 9-14 Basic Combat Training.
 ASubjSed 10-1 Army Supply System.
 ASubjSed 10-5 Subsistence Supply.
 ASubjSed 10-14 Parts Supply.
 ASubjSed 10-10 MOS Technical Training of Unit Supply Specialist; MOS 1821 Unit Supply Specialist.
 ASubjSed 10-102 MOS Technical Training of Cooks.

- ASubjScd 11-102 MOS Technical Training of
Wire Communication
Personnel.
- ASubjScd 12-102 MOS Technical Training of
General Administrative
and Legal Clerk Person-
nel and First Sergeant
Administrator.
- ASubjScd 17-2 Recognition of Enemy
Armor.
- ASubjScd 17-4 Vehicles, Driving and
Maintenance, Tank.
- ASubjScd 17-8 Command and Command
Maintenance Inspections.
- ASubjScd 17-41 Army Maintenance Sys-
tems and Field Mainte-
nance Programs.
- ASubjScd 17-42 Army Supply Systems and
Field Supply Problems.
- ASubjScd 17-48 Basic Combat Training
Review.
- ASubjScd 21-7 Intelligence Training.
- ASubjScd 21-8 Maintenance, Supply Econ-
omy, and Cost Conscious-
ness.
- ASubjScd 21-13 Signal Communications
Elementary.
- ASubjScd 21-16 Anti-Infiltration and Anti-
guerilla Warfare Train-
ing.
- ASubjScd 21-17 Inspections.

- ASubjScd 21-20 Individual Day and Night Training.
- ASubjScd 21-22 Marches and Bivouacs.
- ASubjScd 21-23 Land Mine Warfare (Mines and Boobytraps).
- ASubjScd 21-25 Rifle Squad Tactical Training.
- ASubjScd 21-26 Squad Patrolling.
- ASubjScd 33-4 Organization, Mission, Functions and Capabilities of Psychological Warfare Units.
- ASubjScd 33-6 Use of Radio in Psychological Warfare.
- ASubjScd 33-7 Use of Leaflets in Psychological Warfare.
- ASubjScd 33-8 Use of Loudspeakers in Psychological Warfare.
- ASubjScd 55-10 Collection of Transportation Intelligence.
- ASubjScd 55-28 Highway Transport Operations.
- ASubjScd 55-34 Movement by Rail.

12. Department of the Army Forms

- DA Form 462 Preventive Maintenance Service and Inspection For Full Track Vehicles.
- DA Form 9-68 Spot Check Inspection Report for Wheeled and Half Track Vehicles.

DA Form 9-69 Spot Check Inspection Report For All Full Track and Tank-Like Wheeled Vehicles.

13. Department of Defense Forms

DD Form 518 Accident-Identification Card.

14. Standard Forms

SR 91 Operator's Report of Motor Vehicle Accident.

15. Table of Allowance

TA 23-100 Training, Ammunition For.

16. Miscellaneous Films

MF 1370 Highway Mania.

MF 1372 Your Driving Habits

MF 7850 Fire Land Mine.

MF 7854 Last Date.

MF 7855 And Then There Were Four.

MF 7857 A Closed Book.

17. Training Films

TF 5-954 Enemy Boobytraps.

TF 5-961 Camouflage for All Arms.

TF 5-1270 Map Reading, British Conventional Signs and Symbols.

TF 7-295 Military Training.

TF 7-993 Infantry Hasty Field Fortifications—Part I Individual Entrenchment.

- TF 19-1563 Collection and Preservation of Evidence.
- TF 20-1980 Land Mine Warfare Part II—Siting and Marking.
- TF 20-1981 Land Mine Warfare Part III—Laying the Minefield.
- TF 20-1982 Land Mine Warfare Part IV—Recording and Reporting.
- FS 7-69 The Browning Machine Gun, Cal .50 HB (Flexible) M2 (Ground) Part I: Mechanical Training Description, Characteristics.
- FS 7-70 The Browning Machine Gun, Cal .50 HB Part II: Assembling and Disassembling by Groups, Head Space Adjustment.
- FS 7-71 The Browning Machine Gun, Cal .50 HB Part III: Care and Cleaning, Spare Parts, Accessories, and Ammunition.
- FS 8-71 First Aid-Transportation of Casualties.
- FS 16-1 The Character Guidance Program—The Chaplains Hour—The Nation We Serve.
- FS 16-2 The Character Guidance Program—The Chaplains Hour—The Need of Wholesome Thinking.

- FS 16-3 The Character Guidance Program
 —The Chaplains Hour—What
 is Right?
- FS 16-4 The Character Guidance Pro-
 gram—The Chaplains Hour—
 The Complete Person.
- FS 16-5 The Character Guidance Pro-
 gram—The Chaplains Hour—
 Clean Speech.
- FS 16-6 The Character Guidance Pro-
 gram—The Chaplains Hour—
 Chastity.
- FS 16-7 The Character Guidance Pro-
 gram—The Chaplains Hour—
 Worship in Life.
- TF 20-1983 Land Mine Warfare Part V—
 Arming, Disarming, and Cam-
 ouflaging.
- TF 20-1984 Land Mine Warfare Part VI—
 Boobytrapping Mines.
- TF 20-1985 Land Mine Warfare Part VII—
 Protective Minefields.
- TF 20-1987 Land Mine Warfare Part IX—
 Assault Breaching.
- TF 20-1988 Land Mine Warfare Part X—
 Area Clearing.
- TF 20-1989 Land Mine Warfare Part XI—
 Behavior in a Minefield.
- TF 21-1027 Latrinograms.
- TF 21-1370 Camouflage-Movement of Indi-
 viduals and Small Units.
- TF 21-1612 A Penny Saved.
- TF 21-2097 Camouflage Principles.

TF 30-1493 Prisoner of War for Intelligence.
TF 30-1523 Safeguarding Military Information.

18. Film Strips

- | | |
|----------|--|
| FS 4-67 | Direct Fire Sights for Antiaircraft Guns Part I: Theory of Leads. |
| FS 4-113 | Direct Fire Sights for Antiaircraft Guns Part III: Aiming and Orientation. |
| FS 16-8 | The Character Guidance Program—Basic Morality. |
| FS 16-9 | The Character Guidance Program—The Concept of Authority. |
| FS 16-10 | The Character Guidance Program—Life, Reputation, and Property. |
| FS 16-11 | The Character Guidance Program—Home. |
| FS 16-12 | The Character Guidance Program—The Making of Character. |
| FS 16-13 | The Character Guidance Program—The Shaping of Personality. |
| FS 16-14 | The Character Guidance Program — The Formation of Character. |
| FS 16-15 | The Character Guidance Program — Clean Living and Thinking. |

19. Graphic Training Aids

- GTA 3-1 Defense Against CBR Attack.
- GTA 5-2 Elementary Map Reading.
- GTA 5-19 Land Mines and Fuzes, General.
- GTA 5-25 Soviet Land Mines, Fuzes, and Boobytraps.
- GTA 7-2 Scouting.
- GTA 8-1 First Aid.
- GTA 8-17 Personal Health.
- GTA 9-5 Browning Machine Gun Cal .50, M2.
- GTA 9-25 Preventive Maintenance, Wheeled and Half-Tracked Vehicles.
- GTA 9-50 Flare, Trip, M49.
- GTA 9-404 Mines, Antipersonnel.
- GTA 9-650 M59 Infantry Vehicle Armored, Tracked, Vehicle Components.
- GTA 9-651 M59 Infantry Vehicle Armored, Tracked, Power Pack Removal.
- GTA 9-652 M59 Infantry Vehicle Armored, Tracked, Electrical Warning Circuits.
- GTA 9-653 M59 Infantry Vehicle Armored, Tracked, Right Angle Drive Assembly.
- GTA 9-654 M59 Infantry Vehicle Armored, Tracked, Differential Brake Adjustment.

GTA 9-655 M59 Infantry Vehicle Armored,
Tracked, Air Flow Engine
Compartment.
GTA 10-13 Cost Consciousness Program.
GTA 20-1 Atomic Weapons Effect Card.
GTA 20-100 Work Simplification.

APPENDIX II

MAJOR TRAINING FACILITIES

a. Basic Combat Training.

- (1) Range (All Types).
- (2) PRI Range.
- (3) Physical Training Equipment Including Strength Course, Confidence Course, and Logs.
- (4) Bayonet Course.
- (5) Battle Indoctrination Course.

b. Advanced Individual Training.

Non-TOE Maintenance Facilities (Grease Pits, Washrack, etc.).

c. Unit Training.

Maintenance Shops, TOE Equipment.

Close Combat Course.

Infiltration Course.

Known Distance Range.

1000-Inch Range.

Technique of Fire Ranges.

Transition Range.

Machine Gun Square or Circle.

Preliminary Rifle Instruction Circle.

Field Sanitation Demonstration Area.

Gas Chamber.

Concealment and Camouflage Area.

Drill Field.

Tactical Training Area.

Drivers Course.

Grenade Course.

INDEX

	Paragraph	Page
Administrative section, headquarters, headquarters and service company.	24, 25	21
Armored carrier company:		
Air transportability-----	69a	51
Armored personnel carrier-----	63a, 66a	48, 50
Assignment-----	65	48
Attached to infantry battle group-----	78	54
Attached to tactical force-----	82	57
Capabilities-----	67	50
Command-----	76, 79a,	54, 55,
	82	57
Commander's duties when company attached.	82	57
Communications-----	50, 51,	36, 37,
	78,	54,
	79-80	55-57
Dispatcher-----	83	58
Drivers of vehicles-----	' 85	60
Duties-----	81-85	57-60
Establishing liaison-----	82	57
Limitations-----	68	50
Location-----	8a	6
Logistical use-----	77	54
Maintenance-----	68	50
Mission-----	63	48
Mobility-----	69b, c	51
Operational control-----	76	54
Organization and strength-----	64	48
Platoon sergeant-----	84	59
Tactical use-----	82	57
Task vehicle characteristics-----	70-75	51-53
Vehicles-----	66,	50,
	70-75	51-53

	Paragraph	Page
Armor protection, personnel carrier-----	70, 75, 78	51, 53, 54
Armored personnel carrier:		
Armor protection-----	70, 75a	51, 53
Authorizations for company-----	66a	50
Capabilities-----	75	53
Communication-----	74, 79	53, 55
Description-----	70, 71, 73	51, 52
Driver-----	85	60
Land speed-----	71a	51
Machinegun-----	75b	53
Performance-----	70	51
Personnel capacity-----	72	52
Second echelon vehicle maintenance support.	68a	50
Tactical employment-----	78	54
Assembly area:		
Communications-----	118	85
Definition-----	112b	81
Departure from-----	119	85
Desirable characteristics-----	113	82
Occupying-----	116	84
Organization-----	114	82
Security-----	117	84
Attachment:		
Communications maintenance-----	12	12
Control, armored carrier company----	46	34
Control, truck transport company----	76	54
Logistical support-----	9, 29	7, 24
Vehicle maintenance-----	35, 36	27, 28
Rationing-----	37	29
Battalion column march-----	98-109	71-80
Battalion commander:		
Communications responsibilities-----	11, 12	8, 12
Duties-----	19-22	17-18
Duties as division transportation officer.	20a(2), 22, 28	17, 18, 24

	Paragraph	Page
Battalion supply section headquarters and headquarters company.	28, 29	24
Bivouac and assembly areas-----	112-119	81-85
Capacity, armored personnel carrier-----	72	52
Columns-----	89	66
Commitments, truck transport company, preplanned.	47	34
Communications:		
Armored carrier company-----	50, 51	36, 37,
.	79, 80	55-57
Armored personnel carrier-----	74-79	53-55
Battalion-----	10-13, 30-31	7-12, 25
Detached units-----	9a, b, 12	7, 12
Bivouac and assembly areas-----	118	85
Headquarters and headquarters company.	30, 31	25
Maintenance-----	12	12
March-----	107	78
Means-----	13	12
Security-----	11	8
Truck transport-----	49, 50	36
Definitions of march terms-----	89-97	66-71
Detached units:		
Medical service-----	9c	7
Rations-----	9a, b, 30	7, 25
Resupply of POL and class V-----	9a, b, 30	7, 25
Signal equipment for-----	9a, b, 12	7, 12
Vehicle maintenance for-----	9a, b, 36	7, 28
Division administration company-----	6a	6
Division highway traffic headquarters-----	22	18
Division trains:		
Assignment of battalion-----	8b	7
Headquarters-----	10b(2)	8
Truck companies in rear areas-----	48b	35
Division transportation officer-----	22, 46	18, 34

	Paragraph	Page
Division transportation section, head- quarters and headquarters company:		
Division transportation officer.....	23	21
Highway traffic headquarters.....	22c	19
In battalion headquarters.....	15a	14
Location.....	23	21
Operations.....	23	21
Organization.....	22	18
Personnel.....	21, 22	18
Drivers duties.....	61, 87	45,
Firepower, armored vehicle.....	75b	53
Headquarters and headquarters company:		
Administrative section.....	24, 25	21
Air transportability.....	7c, 18a	6, 16
As infantry.....	17c	16
Assignment.....	16	16
Battalion supply section.....	23, 29	24
Capabilities.....	17	16
Command.....	19-22	17-18
Commander as division transportation officer.	20a, 22a	17, 18
Communications section.....	30, 31	25
Company headquarters.....	32, 33	26
Division transportation section.....	21-23	18-21
Ground mobility.....	18b	16
In battalion.....	3	4
Maintenance platoon.....	34-36	27-28
Messes.....	37, 38	29
Mission.....	14	14
Mobility.....	18b	16
Operations and intelligence section ..	26, 27	23
Organization and strength.....	15	14
Personnel.....	15b, c,	14, 16,
	20	17
Services provided.....	15a	14
Staff officers.....	15b	16
Traffic headquarters.....	22c	19

	Paragraph	Page
Logistical use, armored carrier company ---	77	54
Maintenance platoon, headquarters and headquarters company.	34-36	27-28
March:		
Administrative	89a	66
Battalion column	98	71
Bivouac and assembly areas during ..	112-119	81-85
Columns	90	66e
Communication	107	79
Control and supervision	106	78
Distances	101	73
Formation	97	71
Halts during	103	74
Initial point	99	72
Maintenance	111	81
Night	108	79
Orders	105	77
Phase lines	102	73
Planning	91	68
Quartermaster party	95	70
Rate	100	72
Routes	92	68
Route reconnaissance	94	69
Security	104	75
Tactical	89b, 97	66, 71
Terms	87	62
Trail party	96	70
Training	86	62
Types	87	62
Warning orders	93	68
March columns	87-111	62-81
Medical battalion	6a	6
Messing unit	38	29
Operations and intelligence section, head- quarters and headquarters company.	26, 27	23

	Paragraph	Page
Organizational maintenance:		
By headquarters and headquarters company.	34	27
Wheeled and tracked vehicles-----	15a	14
Personnel:		
Administrative section, headquarters and headquarters company.	26	23
Battalion headquarters-----	20	17
Battalion supply section, headquarters and headquarters company.	29	24
Battalion communications section-----	30, 31	25
Carrier-----	62-76	46-54
Division transportation section, headquarters and headquarters company.	22	18
Maintenance platoon, headquarters and headquarters company.	35	27
Operations and intelligence section-----	27	23
Phase lines-----	102	73
Quartermaster party-----	95	70
Requests for transportation-----	57b	42
Route reconnaissance-----	94	69
Signal equipment:		
Maintenance-----	31	25
Within battalion-----	12	12
Signal operating instructions-----	11a(2)	9
Standing signal instructions-----	11a(3) (e)	11
Tactical use, carrier company-----	79	55
Training:		
Bivouac and assembly areas-----	112-119	81-85
Concurrent-----	126	91
Coordination-----	124	89
Management-----	125	89
March-----	86-111	62-81
Phases-----	121	86
Post cycle-----	122	88

	Paragraph	Page
Training—Continued		
Records and reports.....	128	94
References.....	129, app. I	94, 95
Supervision.....	123	88
Technical	127	93
Transport of salvage.....	27 <i>b</i>	23
Transportation battalion:		
Air transportability.....	7 <i>a</i>	6
Assignment.....	4, 8 <i>a</i>	4, 6
Capabilities.....	5	4
Commander.....	11, 12, 14 <i>b</i> , 8, 12, 16, 19-22	17, 18
Command post.....	8	6
Communications.....	10, 11, 13, 7, 8, 12, 23, 30, 31	21, 25
Detachment of units.....	9 <i>a</i>	7
Headquarters and headquarters company.	14-37	14-29
Limitations.....	6, 45, 68	6, 33, 50
Location of companies.....	8 <i>a</i>	6
Logistical support of assigned or attached units.	9	7
Maintenance platoon.....	34-36	27-28
Messes.....	37, 38	29
Mobility.....	7 <i>b</i> , <i>c</i>	6
Operations section.....	23	21
Organization and strength.....	3	4
Carrier companies.....	63-85	48-60
Planning for attachment of units	9	7
Relation to infantry division	2-6	3-6
Responsibilities in signal equipment	12	12
Supply section.....	28, 29	24
Truck transport company.....	38-62	29-46
Truck transport company:		
Air transportability.....	45 <i>a</i>	33
Assignment.....	3, 41	4, 31
Assistant truckmaster-dispatcher.....	56	40

	Paragraph	Page
Truck transport company:—Continued		
Attached to combat element	43a	35
Capabilities	43	33
Commander	53	38
Commitments	47	34
Communications	48-50	35, 36
Distribution and storage of supplies ..	47	34
Drivers	62	46
In division trains rear area	48b	35
Limitations	44	33
Location	8a	6
Maintenance support	44	33
Mission	39	31
Mobility	45b, c	34
Operational control	46	34
Organization and strength	40	31
Personnel	53-62	38-46
Radio communications	49	36
Sound and visual communication	51	37
Utilization and control	46, 47	34
Vehicles	42	31
Vehicles operations center	57	41
Wire communication	50	36
Unit messes	37	29
Warning orders for march	93	68

By Order of *Wilbur M. Brucker*, Secretary of the
Army:

MAXWELL D. TAYLOR,
General, United States Army,
Chief of Staff.

Official:

HERBERT M. JONES,
Major General, United States Army,
The Adjutant General.

Distribution:

Active Army:

DCSPER	Corps
ACSI	Div
DCSOPS	PMST Sr Div Units
DCSLOG	PMST Jr Div Units
ACSRC	PMST Mil Sch Div Units
CofT	USA Inf Sch
Technical Svc, DA	TPMG Sch, US Army
Technical Svc Bd	USA Trans Sch
USCONARC	USA QM Sch
USA Arty Bd	AMSS
USA Armor Bd	USA Ord Sch
USA Inf Bd	USA Sig Sch
USA Air Def Bd	USA Armor Sch
USA Abn & Elet Bd	USA Engr Sch
USA Avn Bd	USMA
USARADCOM	CGSC
OS Maj Comd	Units org under fol TOE:
OS Base Comd	55-76
Log Comd	55-77
MDW	55-78
Armies	

NG: State AG; units—same as Active Army.

USAR: None.

For explanation of abbreviations used, see AR 329-50.

3000021288



