FM 10-6

DEPARTMENT OF THE ARMY FIELD MANUAL

QUARTERMASTER SERVICE COMPANY

DEPARTMENT OF THE ARMY • JANUARY 1956

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FIELD MANUAL NO. 10-6

DEPARTMENT OF THE ARMY

Washington 25, D. C., *6 January 1956*

QUARTERMASTER SERVICE COMPANY

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CHAPTER 1

INTRODUCTION

Section I. GENERAL

1. Purpose

This manual provides information necessary for the efficient functioning of the Quartermaster Service Company (TOE 10–67R).

2. Scope

This manual covers the mission, capabilities, organization, and operation of the Quartermaster Service Company (TOE 10–67R).

Section II. THE COMPANY

3. Mission

a. The quartermaster service company provides military personnel for general labor where security and strict military control are required. The company may provide necessary guards for prisoners of war performing general labor under supervision of Quartermaster Corps. It may also fight as infantry when required.

b. When operating as a type B unit, the military personnel of the company supervise non-United States personnel required for general labor.

4. Capabilities

a. When the quartermaster service company is operating at full strength, it is capable of han-

dling approximately 64 tons of assorted supplies per hour, each platoon 16 tons per hour, and each section 8 tons per hour.

b. When the company is operating at reduced strength, the capabilities of company, platoon, and section are reduced 25 percent respectively.

c. When the company is operating as a type B unit, its personnel must be augmented by non-United States personnel to provide the necessary labor. When the personnel are augmented to full strength, the capabilities of the company may be equivalent to *a* above. The number of such non-United States personnel must be determined by the command to which the company is assigned. Interpreters required may be obtained from indigenous sources.

5. Assignment and Attachment

a. As Part of Quartermaster Battalion. The quartermaster service company is assigned to a field army or communications zone and is normally under the command of a headquarters and headquarters detachment, quartermaster battalion, (TOE 10–536R). The battalion headquarters supervises and coordinates the administration, training, operation, and supply of the company. The battalion may be in turn attached to a quartermaster group (TOE 10–22R) for further centralization and control. When operating under the quartermaster battalion, the work assignment is received from battalion headquarters.

b. As Separate Company. The company may be attached to such headquarters as a port command, division, or task force to furnish labor or to supplement labor personnel of the organization. When the company is so attached, the company commander receives his instructions from and operates according to standing operating procedures set up by the particular command.

c. As Separate Platoon. Platoons of the quartermaster service company may be attached to an organization or task force when the labor requirements do not justify the use of the entire company.

d. By Tables of Organizatian. Certain tables of organization call for the quartermaster service company to be attached, when necessary, to the organizations specified in the tables of organization. Included in this category are depot, supply, service, and maintenance type units.

e. As Installation Complement. In the zone of the interior or oversea command, the quartermaster service company may serve at a post, camp, station, port command, or depot for training purposes or other duties.

6. Basis for Allocation

The basis for allocation of the quartermaster service company is 20 per field army. In the communications zone, allocation may be determined by the following formula:

$$\text{Units required} = \frac{\text{Tons to be handled}}{\text{Time limit (hours)} \times \text{Unit capability}}$$

CHAPTER 2

ORGANIZATION AND EQUIPMENT

7. Company Organization

The quartermaster service company consists of a company headquarters and four platoons (fig. 1). Labor detachments organized under TOE 10–500R may be used to augment the company.

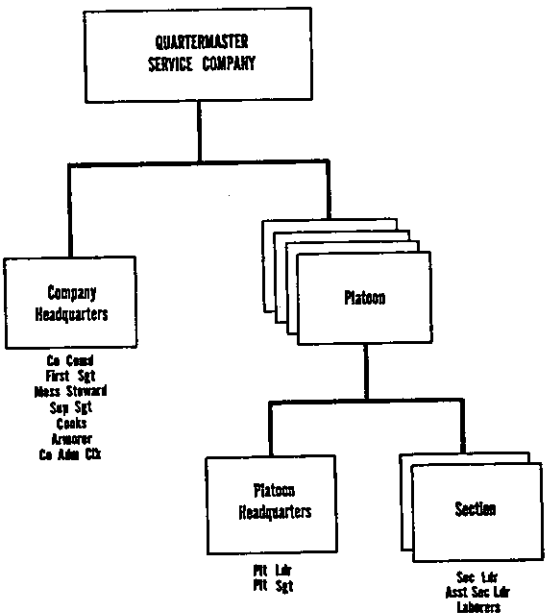

Figure 1. Organization and personnel of the quartermaster service company.

8. Organizational Equipment

a. General. In addition to equipment common to most companies, such as mess equipment, administrative vehicles (with the equipment), weapons, office equipment, and chemical defense equipment, the quartermaster service company is authorized a variety of handtools, such as axes, crowbars, wrecking bars, and railroad picks. These items are issued to sections of the company as required for the performance of assigned missions. Appendix II contains equipment data.

b. Maintenance.

(1) *Responsibility.* The commander of the quartermaster service company is responsible for the maintenance of company equipment. He will insure that maintenance instructions and procedures are strictly complied with by personnel of the company.

(2) *Organizational maintenance.* Organizational (first and second echelon) maintenance is the maintenance performed by the organization on its own equipment. The company is authorized neither trained personnel nor tools for the performance of other than basic maintenance. Users or operators of equipment will perform first echelon maintenance. Limited second echelon maintenance may be performed by qualified personnel provided proper tools or equipment are available.

(3) *Field and depot maintenance.* Field (third and fourth echelon) maintenance and/or depot (fifth echelon) maintenance will not be undertaken by personnel of the company. The company commander will make arrangements for this support, as well as organizational maintenance beyond the company's capabilities, through the headquarters to which the company is assigned or attached.

c. Parts and Tools. Authorized quantities of parts and tools for the company are procured in the initial supply of equipment. Company personnel will maintain the authorized level by requisitions to the designated supplying organization.

d. Records. The pertinent records prescribed by AR 700–105, TM 9–2810, and TM 38–660 will be maintained by the company.

CHAPTER 3

DUTIES OF PERSONNEL

9. Section

a. Section Leader. Each section leader of the quartermaster service company is directly responsible for the discipline, training, and performance of the personnel of his section. He must study his men and train them to work together. He is the labor foreman of the group and should see that the orders of the platoon sergeant and higher headquarters are carried out efficiently.

b. Assistant Section Leader. The assistant section leader assists the section leader in the control of personnel in the performance of their duties. He may be called upon to act as foreman of work details within the section in order that the section leader may be free to supervise the overall operations of the section.

c. Laborers. The laborers make up the work details provided by the company. They work under the supervision of their noncommissioned officers and foremen and may perform any of the duties discussed in paragraphs 20 and 21. Laborers are divided into two classes, laborers and senior laborers; senior laborers are expected to perform more highly technical labor.

10. Platoon

a. Platoon Leader.

(1) Each platoon leader of the quartermaster service company has command responsibility for his personnel. The platoon leader directs and supervises the operations of his platoon in compliance with instructions of the company commander. It is the platoon leader's responsibility to train and instruct his personnel in their duties and responsibilities on all assignments.

(2) Each platoon leader should train his platoon first to operate as part of the company team and second to operate as a separate unit. When the platoon operates separately, the platoon leader functions as commander of the separate detachment and is responsible for the administration, transportation, supply, operation, and security of the unit unless directed otherwise by orders. When operating separately, the platoon may be attached to another unit for messing and supply. The platoon may be augmented with personnel and equipment from company headquarters to provide other administrative facilities. The platoon leader should be encouraged to act on his own initiative in order to be prepared to operate the platoon either as a separate detachment or as part of the company.

(3) When the company operates as a unit, the company commander may assign the platoon leaders additional duties. In assigning these duties, the company commander retains responsibility for the proper performance of them.

(4) The platoon leader of the type B unit must be tactful and discreet in his dealings with non-United States personnel. He must be able to assert his authority over them in such a way as to command their respect. He must also be able to maintain good relations with the agencies with which his unit works.

b. Platoon Sergeant.

(1) The platoon sergeant is the noncommissioned assistant to the platoon leader. He helps in training the platoon and in supervising both its tactical and technical operations. As labor foreman for the platoon, he uses the section leaders in directing the work details. When the platoon is operating independently, the platoon sergeant assumes the duties of a first sergeant. During the training period, he should learn administrative procedure in order to operate a separate platoon efficiently.

(2) The type B unit has no platoon sergeant. Hence the work of the platoon sergeant must be apportioned among the section leaders.

11. Company

a. Company Commander.

(1) The company commander is responsible for all activities of the company. His administrative duties are discussed in AR 220–70. They include the following:

(*a*) Receiving requests for work details and supervising the preparation of rosters assigning tasks to elements of the company.

(*b*) Supervising the work done by the company to insure accomplishment in accordance with directives issued by higher authority.

(*c*) Coordinating the administration and operations of the company to insure adequate housekeeping and at the same time to keep the maximum number of men available for duty.

(*d*) Preparing training schedules and conducting training in accordance with the general policies directed by higher authority.

(2) In the type B unit the company commander commands only the military personnel of the company; he also supervises the non-United States personnel during the time they are actually working with the unit.

b. First Sergeant. The first sergeant is the senior noncommissioned officer of the company. He is the noncommissioned administrative assistant to the

company commander. His duties are discussed in AR 611–201. In addition to the regular duties of a first sergeant, he will maintain the records of work performed, prepare rosters for the distribution of work, and maintain control records as directed.

c. Mess Steward.

(1) The mess steward is in immediate charge of the company mess, functioning as the noncommissioned assistant to the mess officer. He is charged with the supervision and control of mess personnel. His duties are discussed in TM 10–402.

(2) The mess steward must coordinate messing with the company operations. In addition to the regular meals, food must be provided for details which may require messing at unusual hours.

(3) The mess steward of the type B unit, in addition to his duties connected with the operation of the company mess for military personnel, is required to supervise the mess for non-United States personnel when this type of mess is operated. He must see that the head count is properly recorded, that the proper amount of rations are secured for the personnel, and that the food is prepared and served regularly and properly.

d. Supply Sergeant. The supply sergeant assists the company supply officer. In the field he must plan his work so as to be able to contact personnel

when they are in the bivouac area. The turn-in and issue of clothing and equipment must be coordinated with the company operations. In the type B unit the supply sergeant will furnish individual clothing and equipment to the non-United States personnel only when such issues are authorized by higher authority.

e. Cooks. The cooks, second cooks, and cook's helper, under the supervision of the mess steward, prepare the food for the company. Information in the following manuals is essential in the performance of their duties: TM 10–402A, TM 10–405, TM 10–418, and TM 10–701. The second cooks are also designated as light truck drivers. In the type B unit the cooks have no responsibilities for feeding the non-United States personnel of the company.

f. Armorer. The armorer is the general utility man of the company. In addition to maintaining and servicing the small arms of the company, he does carpentry, painting, and similar repair work. In the field, the armorer constructs tables, showers, and wash racks; he also provides expedients to improve the bivouac or billet area. When the service company expects to be in one location for several weeks, field expedients provided by the armorer contribute greatly to the health and comfort of the men. The following manuals contain information valuable to the armorer: TM 5–226, TM 9–867, and FM 21–10.

g. Company Administrative Clerk. The company administrative clerk performs his duties as

directed by the first sergeant. In addition, he is designated to drive one of the vehicles assigned to the service company.

h. Personnel Administrative Clerk. The personnel administrative clerk must be familiar with all phases of personnel administration since he, under the direction of the company commander and the first sergeant, must do all the personnel work when the company is operating separately without the facilities of a unit personnel section. In the type B unit the personnel administrative clerk also functions as company administrative clerk.

CHAPTER 4
TRAINING

12. General

a. Responsibility. Responsibility for training is a command function. Training must be performed and carried out in accordance with Department of the Army policies and techniques. For this purpose, the company commander is furnished with a standard training program for the quartermaster service company (ATP 10–222) and in addition will receive assistance and control from the headquarters to which the company is attached. ATP 10–222 describes general responsibilities and outlines in detail the master training schedule, scope of instruction, and subject sequence. As indicated in the training program, the company commander is specifically responsible for the preparation of training programs, records, and reports, and for the planning, organization, and supervision of all phases of unit training.

b. Objectives. The primary objective of training is to produce a unit capable of performing its mission under field conditions. The company must be brought to perfection by an intensive, thorough, and rapid training program. The company must also be trained to defend itself and its assigned area and in operation under varying field conditions.

c. Points for Emphasis. The following subjects should be stressed during both individual and unit training:

(1) *Supply economy.* Supply economy is a command function. The doctrine of supply economy requires strict adherence to authorized allowances and immediate turn-in of excesses through authorized channels. It further requires economy in replacement issues; proper care, preservation, and timely repair of all economically repairable items; and extensive rehabilitation and conversion of items for other practical and economical uses when those items can no longer be used for their original purpose.

(2) *Lines of responsibility.* The company commander should build up definite lines of responsibility within the company and make sure that these lines are followed in job supervision. These lines, which actually compose the chain of command, make responsibilities clear. A definite task should be assigned to each man in the company commensurate with his military occupational specialty and his ability.

(3) *Noncommissioned officer training.* Noncommissioned officer training should be conducted. Noncommissioned officers should be able to instruct enlisted men in work techniques and should be given

opportunity to exercise command functions to develop leadership, initiative, and a sense of responsibility. Noncommissioned officers who fail to attain or maintain acceptable standards of performance should be removed. The failure of a noncommissioned officer to supervise a job properly creates a reflection on the ability of noncommissioned officers as a whole and on the efficiency of the company. Troop schools are useful in instructing the noncommissioned officers in the duties and responsibilities of their grade and in teaching them correct methods and procedures.

(4) *Work techniques.* Correct techniques of work should be stressed, such as instruction in the proper methods of lifting and carrying, loading trucks and railroad cars, and sorting and stacking supplies.

(5) *Methods of supply handling.* Proper methods of handling subsistence, clothing, equipment, general supplies, petroleum products, and ammunition should be emphasized.

13. Individual Training

a. Basic Combat Training. Basic combat training is designed to convert the recruit from a civilian to a soldier by familiarizing him with the fundamentals of infantry combat. This training is conducted as required under ATP 21–114.

b. Advanced Individual Training. Advanced individual training consists of two phases—branch training and special training. Branch training enables the individual to gain a general knowledge of the organization, mission, and functions of the Quartermaster Corps and its operations in the field. Special training enables the individual to gain a knowledge of the job requirements of his TOE assignment. Both branch and special training are integrated throughout the individual training phase. The mission and capabilities of the quartermaster service company necessitate special emphasis on the following factors of individual training in addition to those described in ATP 10–222:

(1) *Guard duty.* Training in guard duty is essential. Personnel of the service company guard installations at which they work. They also guard non-United States personnel working at the installation. While performing guard duty, they may be required to supervise non-United States personnel.

(2) *Stevedoring.* Personnel should be familiar with common stevedoring terms and techniques. They must know standard ship-loading and unloading procedures.

c. Additional Individual Training.

(1) *Refresher training.* Occasionally, personnel upon assignment to the quartermaster service company will be in need of refresher training in order to bring

them up to desired levels of proficiency. Such training will be conducted as on-the-job training.

(2) *Secondary duty training.* Certain individuals of the company will be required to assume secondary duties in addition to their assigned military occupational specialties. TOE 10–67R indicates specific personnel required to assume additional duties as light truck drivers. Other additional duties may be assigned to individuals at the discretion of the company commander. Training in these additional duties will usually be given in the form of on-the-job training.

(3) *On-the-job training.* On-the-job training consists of continued practice in all phases of the individual's assignment so as to develop a high level of proficiency in his occupational skills. It is also intended to train the individual in related jobs so that every man is capable of assuming the duties of the individual immediately above him. In this way, the operational efficiency of the company will not be affected by the absence of key personnel (par. 15).

14. Unit Training

a. General. Unit training must be based on ATP 10–222, which outlines in detail the purpose, scope, subjects, and duration of unit training. The com-

mander of the quartermaster service company should prepare at the outset of unit training a training progress chart based upon directions from higher headquarters, indicating the progress of training and the training status of the company.

(1) *Technical subjects.* Unit training in technical subjects is designed to train members of the individual platoons to work as a team and to develop further individual and platoon efficiency. It consists largely of putting to use the skills acquired in individual training.

(2) *Combat skills.* Unit training in combat skills continues the basic training of the individual soldier, teaching him the application of basic combat training and military procedures necessary in the defense of the company and its assigned area.

(3) *Miscellaneous.* Unit training in miscellaneous subjects includes tests, drills, and inspections, and time allocated to the commander to cover special training considerations. Suggestions for effective utilization of the commander's time are given in ATP 10–222.

b. Practical Operations. This training is designed to provide functional training with an actual workload, when practicable, to include preparation for and participation in operations under simulated combat conditions in the field.

c. Field Exercise and Maneuver Training. This training is designed to provide experience in conducting operations under simulated combat conditions in the field. Maximum utilization should be made of opportunities for supporting other units undergoing field training at the same or nearby installations. Maneuver training will be as prescribed by higher headquarters.

15. Cadre Training

The cadre is a key group of enlisted men necessary for the establishment and training of a new unit. Because the company may be called upon to furnish the cadre indicated in TOE 10–67R, the training of cadre understudies is a continuous part of the company training program.

a. Cadre Selection. Each member of the cadre for a new unit should be thoroughly trained before joining the unit and should be qualified both to perform his specific duties and to aid in the training of the unit. When called upon to furnish a cadre, the company commander should select those men whose performance of duty, together with their leadership and instructor potential, indicates that they are best qualified to assist in the activation of a new unit.

b. Special Training. Cadre training should be aimed at producing alert, aggressive, and energetic individuals with a well-grounded, overall knowledge of the general and specific fields covered in the training and operation of a quartermaster service company. ATP 10–222 outlines

requirements for cadre training. Special emphasis should be placed on training in methods of instruction in order to select the best qualified instructors for cadre assignment.

CHAPTER 5

PREPARATION FOR OPERATIONS

16. Reconnaissance

The general area in which the quartermaster service company will operate is determined by the command to which the company is attached. After the general area is designated, the company commander makes or directs a reconnaissance to select the most desirable site within the general area. Reconnaissance for site selection is best accomplished by using a combination of map and ground evaluation. Usually a study of the map is made first to determine the location of likely areas. Ground reconnaissance is made to determine the nature and condition of the terrain in order to select the best location.

17. Site Selection

The principal factors to be considered by the commander of the quartermaster service company in site selection are convenience to operating areas, suitability of terrain, defensibility, cover and concealment, accessibility to a road net, and adequacy of space for dispersion—all determined in accordance with the mission assigned to the service company.

18. Requisitioning and Supply of Labor

The principles of the requisitioning and supply of labor are the same whether the dispatching agency is the company headquarters, the battalion headquarters, or the labor officer; or whether the personnel of the service company are to be used as labor or as supervisors of labor. Normally, a standing operating procedure is prepared by the operations officer of the organization or installation to which the service units are attached, and using agencies must comply.

a. Principles of Labor Supply. A system of labor control must be planned to satisfy each particular situation. However, the following general principles are applicable to all situations:

(1) All requests for labor should be submitted to the highest headquarters concerned.

(2) Normally, permanent work details should be provided automatically each day before nonpermanent details are assigned.

(3) Except in emergencies, requests for new details or changes in strength of permanent details should be received by the dispatching agency not later than a designated time on the day preceding that for which troops are desired.

(4) Requests for emergency details submitted after the designated time should be acted upon by the highest headquarters concerned.

(5) At each point where work details are required, an officer should be authorized to receive the detail and to release it when the work is completed. He will personally submit requisitions for service troops as he needs them, and work details will be assigned to him specifically.

(6) When work details are to report to a person other than the requisitioning officer, the requisitioning officer will specify the work locations and the person to whom the detail will report.

(7) Transportation of work details must be arranged for, since the service company has only enough vehicles for company administration. It must also be determined whether the work details will report directly to their work locations or clear through an assembly point.

(8) All complaints regarding the work details should be submitted to the headquarters to which request was made for the detail. If further action is necessary, the matter will be referred to the next higher echelon of command.

(9) Requests for service troops will be screened carefully and held to the minimum consistent with efficient operation.

(10) When work details report for duty, they should be assigned the work at hand as soon as practicable. Company officers should check the details while at work

to assure that all men are being used efficiently. If a work detail appears to be too large, liaison with the using activity may effect a reduction in the size of the detail and make some of the men available for other assignment.

b. Elments of Labor Supply. Any plan for the requisitioning and supply of labor must include the following elements:

(1) The dispatching agency, whether it be a company headquarters, battalion headquarters, or the labor officer in charge of a labor pool, is informed by the units furnishing work details of the total number of men available each day.

(2) The dispatching agency receives requests for work details from using agencies in order to determine the needs for labor.

(3) The dispatching agency then apportions the men available to the using agencies.

(4) The dispatching agency is notified by the service company of the labor furnished and, in turn, notifies higher headquarters of the utilization of the available labor.

c. Forms for Control of Personnel. There are no required forms for use in the control of service troops. However, a simple system should be improvised to keep all headquarters concerned informed of the status of the troops. The system outlined in this paragraph, involving the use of six

forms, has proved practical when the company is functioning as part of a quartermaster battalion. The forms may be reproduced locally on 8" x 10½" paper and will bear the form number and edition date.

(1) *DA Form 1581–R,* Daily Report of Labor Available (fig. 2), is submitted daily by the company to the dispatching agency. It shows the strength of the company, the number of men not available for duty (giving reasons), and the number of men expected to be available for work details the following day. It is delivered to headquarters before noon of the day preceding that for which the labor will be available. On the basis of these reports from the various companies, the dispatching agency determines how many men can be assigned to work details the following day.

(2) *DA Form 1582–R,* Request for Work Detail (fig. 3), is prepared by the using agency and forwarded to the dispatching agency. It states the number of men desired, the type of work to be done, the uniform to be worn, the period of time the detail will be needed, and where, when, and to whom to report. This form should be submitted to the dispatching agency before a designated time on the day before the labor is needed. Oral requests should not be honored except in

emergencies. In case of an emergency, the formal request for work detail should be submitted to confirm the oral request.

(3) *DA Form 1583–R,* Detail Breakdown Sheet (fig. 4), is prepared by the dispatching agency. Section I is filled in as the Daily Report of Labor Available (fig. 2) is received from the various companies. When completed, the totals show the number of men the dispatching agency has available. Section II is filled in from the previous day's Detail Breakdown Sheet and from the Request for Work Detail that is received from the various using agencies. The form is kept by the dispatching agency as a worksheet; when completed, a copy is used as a report to higher headquarters to show the disposition of available labor for the day.

(4) *DA Form 1584–R,* Work Assignment Sheet (fig. 5), is prepared by the dispatching agency and forwarded to the company commander. It lists the details the company is to furnish, the strength of each detail, the uniform to be worn, and where, when, and to whom to report. This form must reach company headquarters in time for the company to prepare and publish the rosters of the work details.

(5) *DA Form 1585–R,* Report of Work Detail (fig. 6), is prepared by the company

for each detail and given to the noncommissioned officer in charge of the detail. The form shows the strength of the detail, the person in charge, and where, when, and to whom the detail is to report. The report is signed by the person authorized to receive the detail and by the noncommissioned officer in charge of the detail. The form is then returned to company headquarters and filed as a record of work performed.

(6) *DA Form 1586–R*, Company Adjustment Sheet (fig. 7), is prepared by the company and forwarded to the dispatching agency after the work details for the day have left the company area. This sheet shows the number of men reported available, the number the company was ordered to furnish, the actual number furnished, and an explanation of any differences. The sickbook record of the day before is also reported.

19. Locator Board

A locator board should be kept at company headquarters. This board should show the name of each man, his section or his position in the company, and his status on a particular day. To show the status of each man, a peg or tag can be used. This peg or tag is labeled "KP," "Guard," "Detail #1," "Sk in Hosp," or other job or status designation. This system shows what each man is doing and who is available for detail.

DAILY REPORT OF LABOR AVAILABLE		Date 22 September 1955
TO:	FROM: 3220 th Quartermaster Service Company	

Estimate Of Labor Available			
	CCO	PVT & PFC	TOTAL
Total Strength	22	137	159
Not Available	12	20	32
Available	10	117	127
Assigned to Permanent Details	6	85	91
Available for Other Details	4	32	36

Reasons For Nonavailability			
	CCO	PVT & PFC	TOTAL
Overmead (Authorized T/O)	10	1	11
Kitchen Police		4	4
Malaria Control		2	2
Furlough	1	3	4
Absent Without Leave		1	1
Pass			
Confinement		2	2
Sick in Hospital	1	7	8
Sick in Quarters			
TOTAL	12	20	32

Remarks

Typed Name and Grade of Officer in Charge	Signature of Officer in Charge
CALVIN WAITES, 1st Lt., QMC	Calvin Waites

NOTE: No service details of any type are to be shown on this form. This report will reach battalion headquarters by 1130 hours each day.

DA Form 1581-R, 1 Nov 55 Replaces DA Form R-5280, 1 Dec 45, which is obsolete.

Figure 2. DA Form 1581-R, Daily Report of Labor Available.

REQUEST FOR WORK DETAIL

FROM: (Organization or Unit)	Date
Class I Supply Officer	22 September 1955
Address	**Telephone**
Warehouse Nr 7	Ext. 123

TO: Commanding Officer, 402d Quartermaster Battalion

Request For Work Detail

Number of Men		Type of detail	If temporary, estimated number of days needed
NCO	PVT	☐ Permanent ☒ Temporary	
2	26		1

Detail Will Report

Report to	Place	
Capt. Jensen	Warehouse Nr 7	
Hour	**Date**	**Uniform to be worn**
0800	23 September 1955	Work uniform

Nature of work to be performed

Warehousing

Remarks

NOTE: This form is to be used for new details or for increases to established details. Except in emergencies, it will be completed and submitted to battalion headquarters before 1500 hours of the day preceeding that on which the detail is to begin working.

Typed Name & Grade of Requesting Officer

ELMER S. JENSEN, Capt., QMC

Signature of Requesting Officer

Elmer S. Jensen

Detail Number

11

DA Form 1582-R, 1 Nov 55 Replaces DA Form R-5281, 1 Dec 45, which is obsolete.

Figure 8. DA Form 1582-R, Request for Work Detail.

DETAIL BREAKDOWN SHEET					Section I - Battalion Availability Summary			
Date 23 September 1955						NCO	PVT & PFC	Total
TO:					Total Strength	88	548	636
					Not Available	45	79	124
					Available	43	469	512
FROM: 402d Quartermaster Battalion					Assigned to Permanent Details	28	392	420
					Available for Other Details	15	77	92
Section II - Work Details								
Detail	NCO	PVT	Place to Report	Person Receiving	Time	Uniform	Company	
1	2	30	Laundry	Cpl. Williams	0600	Work	2040th	
2	2	30	Cold Storage Plant	Lt. Brier	0800	do	4019th	
3	1	14	LCL Shed	Capt. Leigh	0900	do	4019th	
4	1	10	MP Detachment	Maj. Gieault	0800	Class B	2040th	
5	2	32	Warehouse Nr 2	Lt. Ward	1000	Work	3220th	
6	1	10	Motor Pool I	Lt. Bloom	0800	do	4019th	
7	2	24	Motor Pool II	Lt. Starke	0800	do	2040th	
8	5	60	Engineer (Utilities)	Lt. Hoskins	0800	do	3113th	
9	1	6	Engineer Supply Office	Lt. Mitchell	0800	do	3220th	
10	5	56	QM Supply Office	Capt. Kiefer	0800	do	4019th	
11	2	26	Warehouse Nr 7	Capt. Jones	0800	do	3220th	
12	2	29	Post Exchange Office	Lt. Weston	0800	do	3113th	
TOTAL	26	326	(Carried forward)			Page 1 of 4 Pages		

DA Form 1583-R, 1 Nov 55 Replaces DA Form R-5282, 1 Dec 45, which is obsolete.

Figure 4. DA Form 1583-R, Detail Breakdown Sheet.

WORK ASSIGNMENT SHEET

Detail Assigned to: 3220th Quartermaster Service Company

Date: 23 September 1955

	Detail	NCO	PVT	Place to Report	Person Receiving	Time	Uniform
Section I Permanent Details	5	2	32	Warehouse Nr 2	Lt. Ward	1000	Work uniform
	18	2	24	Engineer (Utilities)	Lt. Landos	1600	do
	23	2	29	QM Supply Company	Lt. Piert	1600	do
	TOTAL	6	85	XXXXXXXXXXXXXX	XXXXXXXXXXXXXX	XXXXXX	XXXXXXXXXXX
Section II Other Details	9	1	6	Engineer Supply Office	Lt. Mitchell	0800	Work uniform
	11	2	24	Warehouse Nr 7	Capt. Jensen	0800	do
	TOTAL	3	30				

Section III - Summary

TOTAL	NCO	PVT	TOTAL	NCO	PVT
Permanent details	6	85	Reported available	10	117
Other details	3	30	Assigned	9	115
TOTAL ASSIGNED - All Details	9	115	Reserve unassigned	1	2

By Order of:	Typed Name and Grade of Adjutant	Signature of Adjutant
Lt. Col. John O. Haven	ROBERT A. PEARSON, Capt., QMC	Robert A. Pearson

DA Form 1584-R, 1 Nov 55 Replaces DA Form R-5283, 1 Dec 45, which is obsolete.

Figure 5. DA Form 1584-R, Work Assignment Sheet.

REPORT OF WORK DETAIL

TO:	Detail Number 11
FROM: 3220th Quartermaster Service Company	Date 24 September 1955

Work Detail Requested

Number of Men		NCO in Charge (name and grade)
NCO	PVT	
2	26	Ralph S. Cogsgrove, Cpl.

Work Detail Reported

Number of Men		Reported to (name of requesting officer)
NCO	PVT	
2	26	Capt. Jensen
Time Reported 0800		Place Warehouse Number 7

Signed by (NCO in charge)	Confirmed by (requesting or authorized receiving officer)
Cpl Ralph S. Cogsgrove Cpl. Ralph S. Cogsgrove	Elmer S. Jensen ELMER S. JENSEN, Capt., QMC

Remarks

Time Detail Released 1630	
Typed Name and Grade of Officer Releasing Detail ELMER S. JENSEN, Capt., QMC	Signature of Officer Releasing Detail Elmer S. Jensen

DA Form 1585-R, 1 Nov 55 Replaces DA Form R-5284, 1 Dec 45, which is obsolete.

Figure 6. DA Form 1585-R, Report of Work Detail.

COMPANY ADJUSTMENT SHEET				Date: 23 September 1955
TO:			FROM: 3220th Quartermaster Service Company	

Summary of Differences in Total Ordered and Total Furnished

Estimated and Actual Strength Furnished	NCO	PVT & PFC	Total
Total reported available	10	117	127
Total ordered to be furnished	9	115	124
Actual number furnished	9	114	123
Balance	0	-1	-1

Explanation of Shortages

Detail	NCO	PVT & PFC	Person Receiving	Reason
18	0	1	Lt. Landos	Sick Call
TOTAL				

Sick Call Report

Date:	NCO	PVT & PFC	Total
Number reported	0	5	5
Number marked "Duty"	0	3	3
Balance	0	2	2

Remarks

Typed Name and Grade of Officer in Charge	Signature of Officer in Charge
CALVIN WAITES, 1st Lt., QMC	Calvin Waites

NOTE: This report must reach battalion headquarters by 0800 hours daily.

DA Form 1586-R, 1 Nov 55 Replaces DA Form R-5285, 1 Dec 45, which is obsolete.

Figure 7. DA Form 1586-R, Company Adjustment Sheet.

CHAPTER 6

OPERATION OF THE COMPANY

Section I. GENERAL

20. Operations in Zone of Interior

The quartermaster service company may be utilized in the zone of interior at a post, camp, station, depot, port, or tactical unit for relief of labor shortages and for on-the-job training. Such assignment is generally a preparation for service in the theater of operations.

21. Operations in Theater of Operations

The quartermaster service company may be employed independently or used to augment various other type companies to provide labor for any purpose authorized by the theater commander or other appropriate commander in a theater of operations.

a. Port of Debarkation. At a port of debarkation the quartermaster service company may be attached directly to the port headquarters or may be attached to a headquarters and headquarters detachment, quartermaster battalion (TOE 10–536R). When employed in port operations, the company may perform any of the following duties:

(1) Sorting and stacking supplies.

(2) Loading supplies for removal from the

dock area.

(3) Working in holds of ships.

(4) Guarding dock supplies, ships' holds, and pipelines.

(5) Searching civilians or prisoners of war, stevedores, and dock workers when going on and off duty.

(6) Guarding supply trains and trucks en route.

(7) Supervising prisoners of war or civilian labor.

(8) Checking supplies on and off ships to trucks and rail cars.

(9) Packing, crating, and marking supplies and equipment.

(10) Constructing pallets.

b. Depot or Supply Point. The quartermaster service company may be employed at a general or branch depot or other supply installation. In depot operations the company may be attached directly to depot headquarters or may be attached to a battalion headquarters within the depot. In supply point operations the company will be attached to the battalion or higher headquarters supervising the operation of the installation. The company may perform any of the following duties:

(1) Unloading and loading railway cars and other vehicles.

(2) Sorting, stacking, and moving supplies.

(3) Assisting in the operation of mechanical materials-handling equipment.

(4) Processing salvage materiel.

(5) Icing refrigerator cars.
(6) Performing housekeeping details.
(7) Performing other required work details.

c. Petroleum Supply Installations. When working with a petroleum depot company or a petroleum supply company, the quartermaster service company may perform the following duties, in addition to those listed in *b* above:

(1) Assisting in setting up the equipment.
(2) Handling empty and filled 5-gallon cans and 55-gallon drums.
(3) Digging fire trenches.

d. Maintenance Installation. The quartermaster service company may be utilized at a maintenance installation to furnish labor for processing unserviceable materiel and, if required, for the operation of a scrap disposal installation. When employed in this manner, the company may perform the following duties:

(1) Receiving, classifying, and distributing to appropriate repair personnel all repairable quartermaster nonmechanical items of equipment and supply.
(2) Receiving, sorting, storing, and disposing of uneconomically repairable items for all technical services.
(3) Loading and unloading carriers.
(4) Performing housekeeping duties.
(5) Performing other required details.

e. Graves Registration Service. The quartermaster service company may be called upon to supplement the personnel of the graves registra-

tion service. When so called upon, the company will work under the supervision of specially trained personnel, as prescribed in FM 10–63. It may perform the following duties:

(1) Collecting bodies.
(2) Digging graves and burying the dead.
(3) Erecting grave markers.
(4) Landscaping cemeteries.

f. Special Operations. The quartermaster service company may be employed to provide labor for any purpose authorized by the theater commander or other appropriate commander in a theater of operations. The company may be assigned the mission of providing additional labor required for—

(1) Landing forces and the amphibious support brigade in amphibious combat operations.
(2) Combat divisions or other tactical forces when the circumstances warrant.
(3) Area commands and other nontactical organizations when other provisions are inadequate.

Section II. TECHNIQUES OF SUPPLY HANDLING

22. Lifting and Carrying

a. Lifting Position. The ideal lifting position is a postare which leaves no strains or twists in the body (fig. 8). The best lifting position is as follows:

(1) The feet are 8 to 12 inches apart and

quite close to the object being lifted, giving a firm foundation, a good balance, low center of gravity, and sure footing.

(2) The body is bent at the knees and hips so that the short, heavy leg muscles do the work.

(3) The back is straight and as nearly vertical as possible, so that there is no strain on the long, flat abdominal and back muscles.

(4) The chest is held well out.

(5) The shoulders are squared.

(6) The head is back.

(7) The arms are straight.

(8) The hands have a good grip.

b. Principles of Correct Lifting and Carrying. Adherence to the following principles will enable the worker to do lifting and carrying jobs more safely and easily.

(1) The best lifting position (*a* above) should always be used.

(2) No man should try to lift a load beyond his strength. If a load is too heavy, he should get help.

(3) Hands must be free of oil or grease.

(4) To provide good footing, work areas should be firm, free of debris, and clear of water, oil, or any substance which may cause a worker to slip or fall.

(5) Lifting should be done by pushing up with the leg muscles.

(6) The lift should be gradual, steady, and without any jerking motion.

(7) By shifting the position of his feet, the worker should avoid twisting motions.

(8) The load must be carried as close to the body as possible (fig. 9). It should not interfere with the normal walking gait. The method of carrying depends upon the distance the object is to be carried.

(9) When carrying a load, the worker should have unobstructed vision ahead.

(10) Packages are put down gently by reversing the lifting process. Smooth and easy handling lessens the strain on muscles and reduces damage to supplies and equipment.

23. Loading Trucks

a. General.

(1) Heavy supplies should be placed at the bottom of the load and evenly distributed over the bed of the truck.

(2) The load should be carefully built up so as to avoid shifting.

(3) The center of gravity of the load should be kept low. If the load is too high, the truck may sway and become difficult to control.

(4) If the load extends above the top of the truck body, it should be securely lashed to the truck. Detailed instructions for lashing are found in TM 21–305.

Figure 8. Ideal lifting position.

Figure 9. Methods of carrying.

(5) The load must not extend over the sides or beyond the tail of the truck unless it can be carried in no other way. If the load must extend more than 2 or 3 feet beyond the rear of the truck, it should be marked by a red flag in daytime and by a red light at night.

(6) The truck must not be loaded beyond the maximum payload noted on the plate on the instrument panel except when authorized. If the weight of the load is not known, it can be estimated with reasonable accuracy by noting the position of the rear springs.

(7) When packages weighing up to about 60 pounds are being loaded (or unloaded) at the back of a truck, only two men can work on the truck at one time without getting in each other's way. However, when loading (or unloading) is being done over the side of the truck, three men can be used on the truck.

(8) The number of men to be used on the ground depends on the distance the packages have to be carried. Usually, at least one man on the ground for each man on the truck is necessary to pass the packages along.

(9) The "chain" or "bucket brigade" method should be used whenever possible. If the packages are of such size and weight that they may be passed from man to man

(such as rations), a line of men passing the packages can handle a higher tonnage in a given time with less fatigue than is possible by any other method except by the use of materials-handling equipment. The number of lines to be used depends upon the number of men available.

b. Loading Special Items. Certain items because of their shape or nature require special handling during loading.

(1) *Ammunition.* Ammunition must be handled with care (par. 30). Overloading must be carefully avoided. Smoking must be prohibited in the area.

(2) *Baled goods.* Baled goods should be loaded on the bed of the truck, large and heavy bales being placed on the bottom. Hay or box hooks should not be used in handling bales.

(3) *Barrels and drums.* Barrels and drums must be loaded in a manner which precludes leakage and loss of contents and does not injure containers.

(4) *Sacked goods.* Sacked goods should be "tied together" by crossing the sacks of alternate tiers in a load or by using the header and stretcher method.

c. Transferring Loads Between Boxcar and Truck. When moving supplies between a freight car and a truck, the following practices will save time and labor:

(1) When possible, the supplies should be moved directly between the freight car and the truck without being placed on the ground or a platform.

(2) The truck should be backed in almost flush with the side of the car door if the terrain permits. The tailgate should be lowered to serve as a car plate between the car and the truck. If a loading platform is between the car and the truck, the truck should be as close to the platform as possible so that the supplies can be moved across the platform without being lowered to the ground.

(3) If the truck cannot be backed to the car or a platform alongside the car, the ground between the car and the truck must be reasonably level and must afford a good footing. The man in the freight car should place the package (weight and shape permitting) on the shoulder of the man on the ground. The man on the truck should lift the package from the shoulder of the man on the ground.

24. Loading Railroad Cars

a. General. The methods of loading freight cars are essentially the same as those for loading trucks except that loads in railroad cars must be blocked and braced to prevent damage to shipment. Normally, the loading will be supervised by

specially trained personnel who will direct the blocking and bracing. Plans for loading freight cars should be based on the following points:

(1) The maximum number of men that can be employed advantageously in loading (or unloading) one freight car is 12 (1 foreman and 11 laborers).

(2) Two men can work at each car entrance. As the loading progresses, the two ends of the car may be worked either simultaneously or one end at a time.

(3) If hand trucks (app. III) are used to handle packages weighing up to 60 pounds each, not more than six men can work effectively. Two men load the trucks, two men push the trucks, and two men unload the trucks. Each of the men pushing the trucks handles three trucks —the truck being loaded, the one being unloaded, and the one on the way to or from the car.

(4) When the supplies are loaded by hand, the handling methods described in paragraph 22 are used.

b. Loading Vehicles on Flatcars. When loading vehicles on flatcars, details from the service company will normally work under the supervision of technically qualified personnel. When supervisory personnel are not available, the detailed procedures prescribed in appropriate vehicle technical manuals should be followed; procedures vary for each type of vehicle.

25. Sorting Supplies

a. General. In beachhead and port operations, supplies may have to be sorted by service, commodity group, and item. Sorting is expedited by marking packages with the color assigned to the technical service which supplies a given item. Unless otherwise noted below, containers will be painted with triangles of the assigned color on diagonally opposite corners. The various services with their assigned color markings are as follows:

(1) Chemical Corps—dark blue.

(2) Corps of Engineers—red.

(3) Ordnance Corps—yellow.

(4) Quartermaster Corps—light green; for sales items a black stripe is placed along the bases of the green triangle; for subsistence items a black or green crescent without service color markings is used.

(5) Army Medical Service—deep maroon.

(6) Transportation Corps—light gray.

(7) Signal Corps—a single 2-inch orange band around the small perimeter of the container, parallel to the end and located so as not to interfere with other markings.

(8) Air Force—a single 2-inch light-blue band around the small perimeter of the container, parallel to the end and located so as not to interfere with other markings. A small blue line is painted across each end of the container.

(9) Army Exchange Service—a black X on diagonally opposite corners.

(10) Special Service Division—white triangles with a 2-inch black dot on each triangle.

b. Methods of Sorting. The method to be used in sorting depends upon the quantity of supplies, the permanence of the installation, the area available, and the tactical situation. However, one of the following methods or a modification of one of them will fit almost any situation:

(1) When several trucks are being loaded from a stack of unsorted supplies, each truck will be loaded with a particular type of item. The loader will pick up only the item being loaded on his truck. This is the simplest type of sorting, but it tends to tie up trucks if the supplies are not evenly mixed.

(2) A second method of sorting is to have workers on a mixed stack form lines to segregate the supplies into sorted stacks. Trucks are then driven up to the stacks and are loaded with the supplies. This method expedites the movement of trucks but requires the double handling of supplies.

(3) If roller conveyors (app. III) are available, several sections are set up and the supplies moved down the conveyor. Men are placed at stations along the conveyors to remove particular items and to

place them on branch conveyor lines, stacks, or pallets. In permanent and semipermanent arrangement, this method may be developed to expedite the movement of mixed loads to and from supply installations.

26. Stacking Supplies

Supplies are usually stacked in warehouses or open storage areas until needed. They are usually stacked on dunnage. Dunnage is more important in open storage than in closed storage. Not only does it keep the bottom of the package off the wet ground, but in winter it prevents supplies from freezing to the ground. The surface and the climate determine the size of the dunnage. If the ground is soft, a foundation of wide boards, coral, logs, or other material may be necessary beneath the dunnage. For information concerning requirements for different types of supplies, see TM 10–250.

a. Hand Stacking. Most of the supplies in theaters of operations are hand-stacked, and much of this work is done by quartermaster service companies. The following rules should be observed in the hand stacking of supplies:

(1) The "bucket brigade" system is the best way of moving the supplies from the unloading point to the stacking point when materials-handling equipment is not available.

(2) If space permits, outdoor stacks should

be limited to 6 feet in height. Higher stacks make stable stacking difficult and may crush the packages in the lower tiers.

(3) Packages must be placed on the stack in such a position that the markings can be read from the ground or floor.

(4) To keep stacks solid, upstanding, and safe, tiers are bound together by stacking containers on one tier lengthwise and on the next tier crosswise. The required amount of cross stacking varies with the supplies. Cross stacking should be limited to individual small stacks within a large block so as to permit the removal of the oldest supplies without undue difficulty.

(5) When practicable, all stacks containing the same item should contain the same number of items. This unit block method facilitates inventory and stock control.

(6) When building a block by hand stacking, the step system should be used, the block being built up from the rear of the stack toward the aisle. Before the stack reaches a height to which it is difficult to pass the packages, a step is left at the side for the convenience of the workmen. As the stack grows higher, other steps are left. When the planned height is reached, the steps are filled in to form a solid block.

(7) To insure stable and neat blocks, the stack should be carefully alined both vertically and horizontally.

b. Palletizing. When fork lift trucks (app. III) are being used, work details will be called upon to stack supplies on pallets. When supplies are stacked on pallets, the palletload must be as level as possible so that it can support other palletloads placed on top of it. When pallets are being loaded, the following method should be used:

(1) The first tier should be placed according to a pattern that will cover the entire pallet surface (an overhang of 3 inches or less is permissible if it does not affect the stability of the load). If the pattern used does not cover the pallet, another pattern should be tried. If no pattern can be found by which all space on the pallet is taken up, a pallet of a different size should be used.

(2) The second tier should be cross-stacked to insure against shifting or toppling.

(3) Additional tiers required to load the pallet to the weight capacity of the fork lift truck should be placed and cross-stacked to insure stability (fig. 10).

(4) After the first pallet load is planned, the stacking pattern should be standardized so that operating speed can increase as the men become familiar with the pattern.

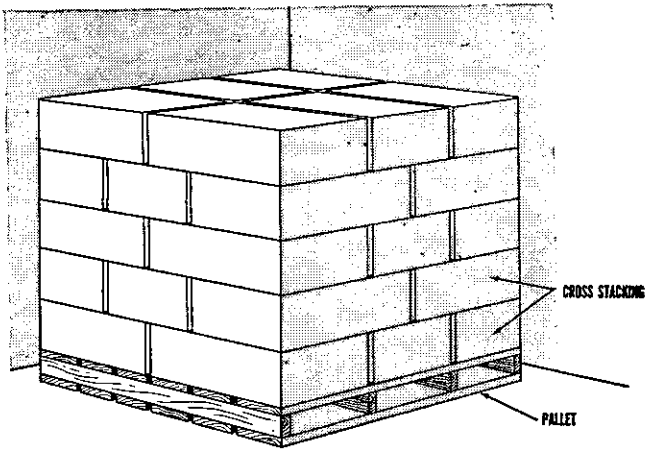

Figure 10. Correct method of cross-stacking containers on a pallet.

Section III. HANDLING SPECIFIC CLASSES OF SUPPLY

27. Subsistence

Proper methods of handling subsistence (FM 10–19, FM 10–30, TM 10–250) not only prevent damage to items but also insure speed and efficiency. Most subsistence items are packed in light (60-pound or less) packages that are easily handled. The containers vary in type, such as fiber cartons, wooden boxes, cans, drums, barrels, and bags. The following suggestions are helpful when handling subsistence:

a. Cardboard containers should be lifted by placing the hands underneath the containers so as to avoid tear or strain.

b. Containers should not be dropped but eased gently into place.

c. Subsistence items in cardboard packages should be cross-stacked.

d. The most convenient method of stacking for each item should be used. The method depends largely upon the ceiling height and the bursting point of the bottom layer.

e. Cartons should not be stacked too high. The weight of the product and the strength of the package will determine the height to which subsistence items packed in cardboard should be stacked.

f. Hooks should not be used on cardboard containers.

g. Damaged containers should be repaired before being handled.

h. If a sack is torn, the tear should be repaired before lifting the sack.

i. Sacks should not be dropped, since dropping may burst the sacks.

j. Special care should be taken in the handling of items which can be bruised, such as potatoes and onions.

28. Clothing, Equipment, and General Supplies

The methods of handling clothing, equipment, and general supplies are essentially the same as those for handling subsistence. The methods must be modified to allow for the differences in the bulk and weight of the packages and in the nature of the products. (See FM 10–22 and TM 10–250.)

29. Petroleum Products

a. Filling Cans and Drums. The following general precautions should be observed when filling cans and drums:

(1) Filling operations must take place in a well-ventilated and well-drained area.

(2) Containers that are to receive the product must be inspected for cleanliness of interior, condition of gaskets, and condition and fit of plug.

(3) Cans formerly used as water containers should not be used as petroleum containers except in extreme emergencies.

(4) The bulk-supply and pumping units should be properly grounded before the filling operation begins.

(5) The spark and flame arrester muffler should be connected to the dispenser before the dispenser is started.

(6) All petroleum containers, whether empty or full, should be tightly closed when not in use.

(7) Containers should be handled carefully to avoid damage and subsequent leaks. Drums must not be dropped from trucks but eased down gently.

(8) During the transfer of petroleum products, fire extinguishers and loose dirt should always be within easy reach.

(9) Extreme care should be used in handling tools to prevent sparks in the vicinity of operation.

(10) Containers should never be filled while on a truck unless the truck is grounded.

(11) When containers are being filled, the hose nozzle should be placed in contact with the metal around the opening so as to ground static electricity. The nozzle or loading spout should be inserted well within the container opening so that no liquid or spray will fall outside, and the nozzle should remain in contact with the container opening until the nozzle valve is closed.

(12) Personnel should watch the operation closely to prevent overflow and to stop the operation in case of emergency. If petroleum products are spilled, the area should be covered immediately with loose earth.

(13) Containers should be filled to the proper fill level (5-gallon cans: one-half inch below the lowest point of the closure threads; 55-gallon drums: 2 inches below the top head of the drum).

b. Handling Petroleum Products in Containers. The following general procedures will be useful when handling petroleum products in containers:

(1) Lubricating oils and other lubricants packed in cardboard or wooden cases should be stacked on dunnage on dry, level ground and kept covered until issued.

(2) Larger containers, not covered by shipping cases, should be stored on their sides in order to keep gaskets moist and to prevent water and dirt from collecting on the heads and thus contaminating the contents.

(3) Strips of lumber or other dunnage should be placed under containers to keep them off the ground.

(4) All cans in a case should be used before another case is opened.

(5) Packages should not be dropped or handled roughly.

(6) Lubricants in cans which develop leaks should be used immediately or transferred to containers of the same commodity.

c. Safety Precautions. Safety is the first consideration in petroleum-handling operations. Personnel engaged in such operations must be on the alert constantly to guard against accidents that might result in injury to personnel and damage to property and equipment. Petroleum-handling personnel must always observe the following general safety precautions in petroleum-handling areas.

(1) Rules prohibiting smoking must be established and strictly enforced. Adequate NO SMOKING signs must be prominently posted. Matches and cigarette lighters must be forbidden.

(2) Fire extinguishers and other fire-fight-

ing equipment must be operable and accessible.

(3) Open flames, heated stoves, electrical tools and apparatus, and other flame- or spark-generating equipment must be prohibited. Only authorized tools, equipment, explosionproof lights and flashlights, and items of clothing will be used.

(4) All equipment, such as pumps, tank vehicles, and storage tanks used in transfer operations must be electrostatically bonded and grounded.

(5) Spills must be avoided and cleaned up immediately when they occur.

(6) Frequent inspection of equipment, safety devices, and working areas must be performed to insure personal and operational safety and to correct potential or actual safety hazards that may exist.

(7) Adequate ventilation must be provided in working and storage areas. Personnel should avoid prolonged exposure to fuel vapors. Gloves and other required protective clothing should be worn to prevent fuels from contacting the skin.

(8) Working areas, such as loading-rack areas, storage-tank areas, can-and-drum-filling and storage areas, and dock areas must be free of loose tools, pieces of lumber, and other objects that may contribute to accidents.

(9) Personnel must be trained to administer first aid, especially treatment of burns.

30. Ammunition

Service company troops may be called upon to load and unload ammunition in magazines, ships' holds, dumps, depots, and ammunition supply points. Ordinarily, skilled personnel will direct the work. Should a technically trained supervisor not be available, detailed information can be found in TM 9–1900 and TM 9–1990. In general, handling ammunition is similar to handling other supplies except that additional safety precautions must be followed because of the nature of the commodity. When handling ammunition, the following rules should be observed:

a. All ammunition will be stacked in a manner permitting ready inspection and quick removal in case of fire.

b. All ammunition will be handled carefully.

c. Ammunition should not be exposed to the direct rays of the sun. When stored outside, ammunition should be covered with a paulin to protect it from the sun and weather. Stacks should be arranged to permit free circulation of air.

d. No nails or tacks will be driven into any container of explosives or ammunition.

e. Loose rounds will not be kept around ammunition storage dumps.

f. When ammunition is stacked under cover, the tops of the stacks will be below the level of the eaves to avoid the heated space directly beneath

the eaves. The bottom layer should be at least 2 inches off the floor. Dunnage should be level.

g. Stacks should not be so high that ammunition or its containers in the lower layers will be crushed or deformed.

h. Partly filled boxes should be fastened securely, marked, and placed on top of the stack.

i. Doors of storage places should be closed while locomotives or motor trucks are passing or stopping. Truck motors should not be started while the doors of the storage places are open.

j. Small-arms ammunition is not dangerous to handle, but workers must be careful to keep the boxes from being broken or damaged.

k. Small-arms ammunition should be stored under cover whenever possible. This applies particularly to tracer and shotgun ammunition. Tracer ammunition, when damp, is subject to rapid deterioration and may ignite spontaneously. Shotgun shells are not packed in waterproof metal-lined boxes except for oversea shipment.

l. Ammunition should be stored in the original containers in a dry, well-ventilated place and protected against excessive heat.

m. Ammunition boxes should not be opened until the ammunition is required for use. Ammunition removed from airtight containers, particularly in damp climates, will corrode and become unserviceable.

n. Ammunition should be protected carefully from mud, sand, dirt, and water.

o. Personnel handling ammunition should clean all mud and grit from their shoes before entering the magazine, car, or boat in which there are explosives or ammunition.

p. Hay or box hooks will not be used on cases of ammunition. Containers will not be tumbled, dragged, thrown, or dropped on one another or the floor.

q. Interior of magazines should be clean. Paint, oil, gasoline, waste, rags, and other flammable material should not be left in magazines.

r. Smoking, matches, and the use of nonapproved electric lights are forbidden.

s. Ammunition should be stored according to type and ammunition lot number. Extreme care must be exercised to prevent the mixing of ammunition in stacks.

Section IV. ADDITIONAL SERVICE CAPABILITIES

31. Icing Refrigerator Cars

Refrigerator cars may be divided into two general types: those equipped with ice bunkers and used chiefly for carrying such commodities as fresh fruits, vegetables, and eggs; and those equipped with brine tanks and used chiefly for carrying meats, poultry, and dairy products.

a. Bunker-Type Car. Inside the bunker-type car, at each end, are compartments known as bunkers, in which ice is carried. The ice is dropped into the bunkers through openings, called hatches, in the roof. The car is iced at an icing station. A long

icing platform, slightly higher than the top of the car, is connected with the station and extends along the railroad track. A chain belt conveyor moves blocks of ice along the icing platform. Men remove them at the car to be iced, break them into smaller pieces, and drop them into the bunkers.

b. Brine-Tank-Type Car. The brine-tank-type car has four brine tanks at each end. The tanks are placed side by side across the end of the car, with hatches at the top for charging with ice and drains at the bottom for releasing the spent brine. The tanks vary in size with the type of car. However, in cars built for transporting meat, each tank holds about 700 pounds of ice, or about 5,600 pounds for the car. When a brine tank car is being iced, the following procedure is used:

(1) *Initial icing.* The car must be properly precooled by icing the day before loading, re-iced the same day, and then re-iced a second time the day of loading. Initial icing is done in the following manner:

(*a*) The drainage plugs are closed.

(*b*) Clean ice, crushed into pieces averaging about the size of a man's fist, is poured in through the hatch openings, the required percentage of No. 2 rock salt being added gradually so that it is uniformly mixed through the ice.

(*c*) The ice and salt mixture is tamped into a compact mass so as to fill the hatches completely.

(*d*) After the tanks have been filled, the hatch plugs are tightly closed to prevent leakage of the brine formed by the melting ice.

(2) *Re-icing.* When the car must be re-iced, the ice remaining in the tanks is tamped down and the excess brine drawn off through the drainage openings. The same percentage of salt is used as was used in the initial icing. One-third of the total quantity of salt to be used is added to the old ice, and the remaining two-thirds is mixed with the new ice. The tanks are filled to capacity and tamped down and the hatches closed as in the initial icing.

32. Assisting in Road Building and Repair

Ordinarily, personnel of the quartermaster service company assisting in road building will be used only in the construction of hasty roads (FM 5–10). However, they may be called upon to build paved roads, prepare roadbeds, and perform other duties under supervision of Engineers. Roads built by the service company are usually constructed in its bivouac area and in and around depots, dumps, and other installations where the service company may be working. Road maintenance consists chiefly of emergency repair and ditching for drainage. Service company details will clear and trim road areas, dig drainage canals, construct culverts, fill in bombed or shelled areas, and do other required work.

33. Assisting in General Construction

Personnel of the quartermaster service company may be called upon to assist in various types of construction. Normally, the work will be done under the supervision of trained Engineer personnel. The following are the general types of work assigned:

a. Camouflage of Installations. Work done in camouflaging large installations, such as depots or dumps, is usually directed by technicians. Appendix I contains references on the camouflage of installations.

b. Field Fortifications. The construction of field fortifications is discussed in FM 5–15.

c. Bivouac Improvement. When the company and the installation being served are semipermanently located, details will be assigned to build roads, walks, sanitary facilities, improvised shelters, drainage systems, and other improvements for the area. FM 5–10 and FM 21–10 will provide helpful data.

d. Reclamation of Captured Areas. When moving into areas captured from the enemy, service company personnel may be called upon to clean up rubble, to tear down buildings damaged beyond repair, and to repair other damaged buildings. TM 5–226, TM 5–280, FM 5–10, and FM 5–25 will provide helpful information.

34. Assisting in Pitching Tents

The quartermaster service company may be called upon to assist in pitching tents for hospitals, supply points, and headquarters (see FM 20–15).

35. Assisting in Pack Transportation

The quartermaster service company may be called upon to assist in pack transportation. Detailed information about this type of operation is given in FM 25–7 and FM 10–11.

Section V. RECORDS AND REPORTS

36. General

Normally, reports of the quartermaster service company to higher headquarters will consist of summaries of production records.

37. Command Report

The quartermaster service company will, when operating as a separate unit in a combat zone, prepare a monthly command report. The report will cover information on operations; recommendations based on experiences; details of joint and combined operations and support activities; and other material pertinent to organization, equipment, training, administration, techniques, and tactics. The purpose of the report is to insure timely and appropriate influence on the stated subjects through rapid and effective collection, evaluation, and application of specific lessons learned in combat operations. Instructions relative to the scope, preparation, and disposition of the command report may be found in SR 525–45–1.

38 Unit History

The quartermaster service company may prepare a unit history, either of an official or unofficial

nature, covering the company's activities in peace or war. The history may comprise the entire life of the unit or be confined to a specific period. The Department of the Army encourages the publication of unit histories. Instructions relative to their scope, preparation, and distribution may be found in AR 220–345.

CHAPTER 7

SECURITY, CAMOUFLAGE, AND DEMOLITION

39. Defense Plan

The quartermaster service company must be prepared to defend itself against air (FM 31–15), guerrilla (FM 31–20), CBR (FM 21–41), chemical (FM 21–40), or mechanized attack. Normally, the company will fit into the defense plan prescribed by higher headquarters and will supply personnel not only for the defense of its own bivouac area but also for the installation which it is serving. Intensive training should be given in small unit tactics. The company, platoons, and sections must be able to act alone if the occasion demands. Personnel of the company must be thoroughly trained in guard duty (FM 26–5) and in the use of land mines and booby traps (FM 5–32). Procedures for entrucking, detrucking, dispersion when attacked, and other techniques of convoy security as set forth in FM 25–10 should be studied.

40. Camouflage

Detailed information on proper camouflage procedures is given in FM 5–20, FM 5–20A, FM 5–20B, FM 5–20C, and FM 5–20H.

41. Demolition

Demolition of supplies and equipment of the quartermaster service company is a command responsibility and will usually be accomplished only in compliance with orders from higher authority; however, in extreme emergencies, demolition of supplies and equipment may be accomplished by the company commander without instructions from higher authority. Demolition must be rapid and must render all supplies and equipment unserviceable. The tactical situation and available tools and explosives will govern the methods of demolition to be used. All like pieces of equipment should have the same part destroyed. See FM 5–25.

42. Safeguarding Military Installations and Supplies

a. Interior Guard. The quartermaster service company may be called upon to provide interior guard personnel to safeguard a military installation, such as a motor park, depot, or supply point. In the performance of such duties, it will be guided by the instructions contained in FM 26–5 or by an authorized standing operating procedure.

b. Patrols. Small patrols are sometimes used to guard installations by patrolling a given area. Personnel engaged in this type of duty should be familiar with FM 21–75.

c. Truck Guards.

(1) When operating in areas where there is danger of robbery or ambush, trucks are provided with an armed guard. He is re-

sponsible for the cargo and must protect it from loss.

(2) When a truck is being loaded and unloaded by native personnel or prisoners of war, the truck guard is sometimes made both a checker and a guard. He checks the number of packages loaded onto the truck and signs for the load. He accompanies the load to the destination and checks the packages off the truck; he is relieved of his responsibility when given a signed release by the receiving agency. This system has proved very helpful in areas with bad roads and undependable natives and when the truck drivers are busy driving and caring for their trucks.

d. Train Guards. Train guards are a variation of truck guards. When there is danger of pilferage and stealing from trains while en route, service company personnel may be assigned duty to ride the freight cars and protect the supplies. When available, military police perform this duty.

43. Assisting in Fire Protection

Details from the quartermaster service company may be assigned to supplement engineer personnel in providing fire protection. Personnel assigned this work should be familiar with the information given in TM 5–315.

CHAPTER 8
MOVEMENT

44. Orders

a. Zone of Interior. Movement of the quartermaster service company within the zone of the interior and from the zone of the interior to an oversea destination will be governed by movement directives of the Department of the Army. Warning orders will be issued to the company as early as possible. Movement orders will be transmitted to the company commander by the next higher headquarters. Movement orders are considered competent authority for movements.

b. Theater of Operations. Upon arrival in the theater of operations, the service company is transported to its destination in accordance with governing oversea movement orders and orders of the theater commander. Thereafter, movement of the company will be effected to facilitate its employment in the performance of its mission. The higher command to which the company is attached may order changes in location within its territorial jurisdiction. Movements beyond the limits of the area controlled by a headquarters must be coordinated with the next higher command. Orders for the movement may be oral or written, depending upon the situation and the degree of coordination required.

45. Movement Plans

The commander of the quartermaster service company will prepare and maintain current plans for the movement of his company. To facilitate immediate compliance with movement orders, these plans should encompass as a minimum the following:

a. Detailed loading tables for personnel, equipment, and supplies.

b. Transportation requirements for motor, rail, or air movement.

c. Entraining and emplaning plans for personnel.

d. Assignment of responsibilities to officers and noncommissioned officers.

e. Clearance of the area upon departure of the company.

46. Motor Movement

On receipt of movement orders the commander of the quartermaster service company will prepare a march order and submit it to the next higher headquarters unless a march order has already been furnished him. The march order will contain march graph, march table, and strip map; composition of the motor convoy, that is, the number of serials and the number and type of vehicles in each serial, as well as the intervals between serials; route of the movement; time of departure from the initial point and estimated time of arrival at destination; and locations of overnight and refueling halts. Upon approval and return of the

march order, the company commander completes his arrangement for departure.

a. Transportation Requirements. The service company is not provided with sufficient organic transportation to move its personnel and equipment simultaneously. If additional transportation is required, the company commander will place a request with the next higher headquarters for the necessary transportation. A total of approximately eight 2½-ton trucks, in addition to those organic to the company, will be required to move the personnel and equipment. The loading plan given below is suggested for the service company.

Number	Type	Position in convoy	Truckload
1	¼-ton	1	Company commander, 1st sergeant, company clerk; towing ¼-ton trailer containing company safe, records, typewriter, and vehicle occupants' personal baggage.
1	2½-ton	2	Personnel, including first rocket launcher team; towing 1-ton trailer of personal baggage.
1	2½-ton	3	Personnel, including machinegun team.
1	2½-ton	4	Personnel; towing 1-ton trailer of personal baggage.
1	2½-ton	5	Personnel, including second rocket launcher team.
1	2½-ton	6	Personnel; towing 1-ton trailer of personal baggage.

Number	Type	Position in convoy	Truckload
1	2½-ton	7	Personnel.
1	2½-ton	8	All kitchen equipment and rations; towing 400-gallon water tank trailer.
1	2½-ton	9	Organic company equipment; towing 1-ton trailer of personal baggage.
1	2½-ton	10	Personnel, including third rocket launcher team.*

* The last vehicle in the column should be equipped with an A-frame and a winch in order to assist any vehicles having automotive failures.

b. Reconnaissance.

(1) Route reconnaissance will be made to establish critical points, investigate defiles and other road conditions which may adversely affect the motor movement, and determine the best route to follow (if the route is not prescribed in the movement orders).

(2) Reconnaissance of the new area will be made. The reconnaissance party for this purpose may be accompanied by the advance party (*h* below), or the reconnaissance may actually be accomplished by the advance party, which can then proceed with preparation of the new area to receive the company.

c. Highway and Area Traffic Regulations. Contact should be made with the traffic headquarters of the new area or with areas through which the movement will take place in order to establish movement plans which will not violate traffic

regulations of those areas. Moreover, the traffic headquarters may wish to furnish guides or to limit other traffic operations in order to expedite the movement.

d. Administrative Techniques of New Area. Investigation should be made, either directly or through the advance party, of the administrative techniques, sources, and requirements of the command of the new area to determine whether any changes are necessary as a result of the change in location of the company.

e. Security. The company commander should take the following measures for the security of the company:

(1) Personnel should be loaded onto vehicles so as to permit their immediate employment in the event of attack. So far as possible, platoon and section leaders should maintain control over their own personnel during the movement.

(2) Crew-served weapons should be available for immediate use if necessary.

(3) All necessary precautions should be observed to maintain counterintelligence measures throughout.

f. Quartering. If the movement is more than 200 miles, shelter must usually be provided. Shelter may be in bivouac, in a camp or cantonment, or in billet.

g. Types of March.

(1) *Close column march.* Close column march is normally used for night movement, in

which the vehicles are closed up to safe driving distances in order to provide maximum control and maximum use of road space.

(2) *Open column march.* Open column march is normally used for daylight movement, in which the distance between vehicles is increased to obtain maximum dispersion consistent with the maintenance of control.

(3) *Infiltration march.* Infiltration march is normally used when secrecy of movement is desired. Vehicles are dispatched at irregular time intervals, with a given density per mile of road space.

h. Organization for the March. The motor march may be in the charge of one or two noncommissioned officers or it may have its various functions handled by separate commissioned officers. In any case, the following personnel will usually be found necessary:

(1) *Column commander.* The movement of a column is in the charge of a column commander, who does not necessarily keep any set place in the formation, for he must supervise the entire column. The subdivisions of a column may have commanders known as serial or march unit commanders. These commanders are responsible for the discipline of troops and for taking full charge in case of enemy attack.

(2) *Advance party.* In advance of the column there may be an advance party, made up of one or more of the following:

(*a*) *Reconnaissance party.* The reconnaissance party obtains information on roads, terminal and halt locations, supply facilities, control requirements, and regulations.

(*b*) *Quartering party.* The quartering party selects, lays out, and begins preparation of the bivouac area.

(3) *Escort party.* Also in advance of the column is the escort party, which is composed of the necessary guards and guides to be set at critical points to facilitate the movement of the column. The escort party is usually only a short time (15 minutes) ahead of the main body and is picked up as soon as the column clears its station.

(4) *Control officer.* The control officer rides at the head of the column or element to set the pace and follow any time schedule which has been set up.

(5) *Trail officer.* The trail officer rides at the rear of the column. In addition to inspecting and supervising repairs to disabled vehicles, he may investigate accidents, pick up guards and guides, dispatch vehicles from the initial point (IP), prevent straggling, and report the

location of the rear of column to the control officer.

(6) *Drivers.* Drivers will possess the necessary driver's permit. They will be responsible for the performance of preventive maintenance on the vehicles assigned.

(7) *Guide.* The guide leads or directs the column or vehicles over a predetermined route or into or out of a selected locality.

i. Arrival at Destination. On arrival at destination the company commander reports to the headquarters designated in the movement orders.

47. Rail Movement

a. General. Transportation for rail movement of the quartermaster service company will be furnished by the Transportation Corps. As soon as the company commander receives movement orders, he will submit to the next higher headquarters a letter requesting transportation. The letter should contain the following information:

(1) Orders or instructions authorizing the movement.

(2) List of personnel and equipment, including vehicles.

(3) Quantity of property and personal baggage.

(4) Approximate transportation requirements.

(5) Date, place of entraining, and date and time due at destination.

b. Transportation Requirements. Transportation requirements for moving the company will be approximately five sleeping cars or three coaches for personnel, one 45-foot flatcar for vehicles, and one boxcar for other equipment. The local transportation officer will specify where equipment should be placed and the time at which loading can begin.

c. Assignment of Duties to Personnel.

(1) *Company transportation officer.* The company commander will designate an officer as company transportation officer. The duties of this officer will be to coordinate and supervise all matters pertaining to the following:

(*a*) Packing, crating, marking, loading, blocking, bracing, and securing of baggage and equipment.

(*b*) Entraining of personnel, including orderly movement from the company area to the entraining point.

(2) *Baggage detail.* A baggage detail should be designated to load and unload the baggage.

(3) *Guard detail.* A guard detail should be designated to guard and protect company equipment.

(4) *Mess officer.* The regularly appointed mess officer will supervise the preparation and serving of meals.

(5) *Loading detail.* A loading detail will be formed from company personnel. This

detail will do the loading under the supervision of the company transportation officer.

d. Company Commander's Duties En Route. The company commander is responsible for the security, discipline, and administration of his personnel en route but exercises no control over the operation of the train.

e. Detraining. On arrival at destination, a Transportation Corps representative supervises detraining and the furnishing of transportation, if applicable, from the railhead to the company's new location. Troops should be informed of arrival time sufficiently in advance to enable them to be prepared to detrain promptly.

f. Unloading. The baggage detail will unload the baggage and the company property. When the quartering area is distant from the detraining point, arms may be stacked and the supplies and equipment unloaded by the entire company. If practicable, the noncommissioned officers who acted as checkers during the loading procedure will serve in the same capacity during the unloading procedure.

g. Company Commander's Report. After the detraining and unloading procedures are finished, the company commander will prepare a report to higher headquarters in accordance with the instructions contained in the movement orders.

48. Air Movement

Orders for air movement of the quartermaster service company will be issued to the company

commander by higher authority. The orders will specify the agency responsible for furnishing the necessary air transportation and will designate the departure airport. Other information concerning the movement, such as date of departure, destination, and restrictions on amount of equipment, supplies, or baggage to be taken, will also be included.

a. Transportation Requirements. Upon receipt of air movement orders, the company commander will establish liaison, through command channels if direct communication is not authorized by the movement orders, with the responsible transportation agency. After ascertaining the number, type, and capacity of aircraft to be employed for the movement, the company commander will implement the company plan for movement by air.

(1) One C–119 transport aircraft will accommodate the company's 2½-ton truck and water tank trailer.

(2) One C–119 transport aircraft will accommodate the company's ¼-ton truck and 20 of its personnel.

(3) Approximately four C–119 transport aircraft will accommodate the remainder of the company's personnel and equipment.

(4) Additional detailed information concerning other types of aircraft may be obtained through liaison or by reference to FM 101–10.

(5) Company personnel should be designated

to accompany and secure company property in all aircraft.

b. Company Commander's Reports. When the movement has been completed, the company commander will render reports required by the movement orders.

49. Water Movement

a. Orders.

(1) *Zone of interior.* When the quartermaster service company is to be moved by water, space allocations and priorities will be established on the basis of Department of the Army movement orders. Detailed instructions will normally be furnished by higher authority for the guidance of the company commander. General information concerning water transportation and preparation for movement of units by water is contained in FM 101–10 and SR's of the 55-series.

(2) *Theater of operations.* Intratheater movement of the company by water may be occasioned by reassignment of commands, changes in mission, or participation in amphibious operations. Movement will be effected by the Military Sea Transport Service or the Transportation Corps in accordance with plans and orders of the theater headquarters or other appropriate command agencies.

b. Liaison. Upon receipt of orders for movement

of the company by water, the company commander will establish liaison, through command channels if direct communication is not authorized by movement orders, with the agency designated to furnish the necessary transportation. By this means he will ascertain the number, type, and capacity of craft to be employed. He will then complete the company plan for water movement in compliance with the movement orders and directives of higher headquarters.

c. Company Commander's Reports. On arrival at destination, the company commander will render such reports as are required by movement orders.

APPENDIX I
REFERENCES

AR 35–6620	Expendable Property
AR 55–135	Transportation of Troops; Railway Equipment.
AR 55–145	Transportation of Troops; Entraining, Duties En Route, and Detraining.
AR 55–155	Traffic Requirements and Procedures Governing Domestic Route Orders.
AR 55–385	Transport Passenger Lists
AR 55–390	Oversea Movement of Organizations, Casuals, and Individuals on Army Transports.
AR 55–445	Debarkation of Troops from Transports.
AR 96–25	Responsibilities and Policies for Movement of Traffic on MATS Scheduled Aircraft.
AR 220–45	Duty Rosters
AR 220–70	Companies—General Provisions
AR 220–345	Unit Histories
AR 350–5	Military Education
AR 355–5	Troop Information and Education—General Provisions.
AR 380–5	Safeguarding Security Information.
AR 600–10	Military Discipline

AR 700–105	Motor Vehicles
AR 711–5	Stock Control — Organization, Operation, and Responsibilities.
AR 711–50	Stock Control—Common Classification Code.
AR 711–205	Stock Control—Housekeeping Equipment.
AR 735–3	Receipt, Shipment, and Issue of Property.
AR 735–5	General Principles and Policies
AR 735–150	Accounting for Lost, Damaged, and Destroyed Property.
AR 740–15	Storage and Shipment of Supplies and Equipment—Preserving, Packaging, and Packing.
AR 750–5	Maintenance Responsibilities and Shop Operation.
SR 55–720–1	Preparation for Oversea Movement of Units.
SR 55–720–2	Movement of Units Within Continental United States.
SR 55–750–5	Procedures Governing Transportation by Air.
SR 320–5–1	Dictionary of United States Army Terms.
SR 320–5–5	Dictionary of United States Military Terms for Joint Usage.
SR 320–50–1	Authorized Abbreviations
SR 335–50–1	Morning Report
SR 335–50–2	Strength Accountability

SR 355–20–1	Troop Information
SR 355–30–1	Troop Education
SR 525–45–1	Command Report
SR 605–105–5	Commissioned and Warrant Officer Personnel Military Occupational Specialties.
SR 615–25–15	Enlisted Personnel — Military Occupational Specialties.
SR 725–10–2	Issue of Supplies and Equipment — Processing Requisitions.
SR 730–10–10	Oversea Supply—Oversea Requisitioning Agencies.
SR 735–150–1	Accounting for Lost, Damaged, or Destroyed Property.
SR 743–5–10	Shed and Open Storage of Supplies.
SR 746–30–5	Marking of Oversea Supply
SR 750–205–10	Maintenance Inspections and Reports, Quartermaster Corps Materiel.
FM 5–10	Routes of Communications
FM 5–15	Field Fortifications
FM 5–20	Camouflage, Basic Principles
FM 5–20A	Camouflage of Individuals and Infantry Weapons.
FM 5–20B	Camouflage of Vehicles
FM 5–20C	Camouflage of Bivouacs, Command Posts, Supply Points, and Medical Installations.
FM 5–20H	Camouflage of Materials and Manufacturing Techniques.

FM 5–25	Explosives and Demolitions
FM 5–32	Land Mine Warfare
FM 10–7	Quartermaster Organization and Operation in Divisions.
FM 10–10	Quartermaster Service in Theater of Operations.
FM 10–11	Quartermaster Pack Company
FM 10–13	Quartermaster Reference Data
FM 10–14	Quartermaster Bakery Company, Mobile.
FM 10–16	Quartermaster Laundry Company, Semimobile.
FM 10–17	Quartermaster Organization and Service in Army and Corps.
FM 10–18	Quartermaster Salvage Company.
FM 10–19	Quartermaster Subsistence Supply Company.
FM 10–22	Quartermaster Clothing and General Supplies Depot Company.
FM 10–23	Quartermaster Reclamation and Maintenance Company, Semimobile.
FM 10–25	Quartermaster Bath Company, Semimobile.
FM 10–29	Quartermaster Graves Registration Company.
FM 10–30	Quartermaster Subsistence Depot Company.
FM 10–63	Handling of Deceased Personnel in Theaters of Operations.

FM 20–15	Tents and Tent Pitching
FM 21–5	Military Training
FM 21–8	Military Training Aids
FM 21–10	Military Sanitation
FM 21–11	First Aid for Soldiers
FM 21–13	The Soldier's Guide
FM 21–15	Individual Clothing and Equipment.
FM 21–18	Foot Marches
FM 21–20	Physical Training
FM 21–25	Elementary Map and Aerial Photograph Reading.
FM 21–30	Military Symbols
FM 21–40	Defense Against CBR Attack
FM 21–41	Soldier's Manual for Defense Against CBR Attack.
FM 21–75	Combat Training of the Individual Soldier and Patrolling.
FM 23–5	U. S. Rifle, Caliber .30, M1
FM 23–7	Carbine, Caliber .30, M1, M1A1, M2, and M3.
FM 23–25	Bayonet
FM 23–30	Hand and Rifle Grenades
FM 23–32	Rocket Launchers
FM 23–35	Pistols and Revolvers
FM 23–41	Submachine Gun, Caliber .45, M3 and M3A1.
FM 24–18	Field Radio Techniques
FM 25–7	Pack Transportation
FM 25–10	Motor Transportation, Operations.
FM 26–5	Interior Guard Duty

FM 30–30	Aircraft Recognition Manual
FM 30–40	Recognition Pictorial Manual on Armored Vehicles.
FM 31–15	Operations Against Airborne Attack, Guerilla Action, and Infiltration.
FM 31–20	Operations Against Guerilla Forces.
FM 31–25	Desert Operations
FM 31–70	Basic Arctic Manual
FM 55–6	Military Transportation Service in Theater of Operations.
FM 55–7	Transportation Service in the Continental United States.
FM 60–30	Amphibious Operations; Embarkation and Ship Loading.
FM 70–10	Mountain Operations
FM 72–20	Jungle Operations
FM 100–5	Field Service Regulations—Operations.
FM 100–10	Field Service Regulations—Administration.
FM 101–5	Staff Officers—Staff Organization and Procedure.
FM 101–10	Staff Officers' Field Manual, Organization, Technical, and Logistical Data.
TM 3–205	The Gas Mask
TM 3–220	Decontamination
TM 5–226	Carpentry
TM 5–280	Construction in the Theater of Operations.

TM 5–315	Fire Protection by Troop Organizations in Theaters of Operations.
TM 5–614	Packing and Crating; Repairs and Utilities.
TM 9–867	Maintenance and Care of Hand Tools.
TM 9–1900	Ammunition, General
TM 9–1940	Land Mines
TM 9–1990	Small-Arms Ammunition
TM 9–2700	Principles of Automotive Vehicles.
TM 9–2810	Tactical Motor Vehicle Inspections and Preventive Maintenance Services.
TM 9–2835	Lubrication
TM 10–250	Storage of Quartermaster Supplies.
TM 10–260	Quartermaster Salvage in the Theater of Operations.
TM 10–267	Repair of Clothing and Textiles
TM 10–269	Repair of Canvas and Webbing
TM 10–270	Repair of Quartermaster Items of General Equipment.
TM 10–275	Principles of Cold Weather Clothing and Equipment.
TM 10–402	Mess Management
TM 10–405	The Army Cook
TM 10–412	Recipes
TM 10–418	Meat Processing Ration Issue
TM 10–466	Handling Petroleum Products

TM 10–590	Hand, Measuring, and Power Tools.
TM 10–610	Refrigeration
TM 10–633	Canvas Repair Kit
TM 10–701	Range, Field, M–1937
TM 10–1619	Quartermaster Materials Handling Equipment.
TM 12–258	Records Administration; Filing Procedure.
TM 21–225	The Army Sports Program
TM 21–300	Driver Selection and Training
TM 21–305	Driver's Manual
TM 31–200	Maintenance and Care of Pneumatic Tires and Rubber Treads.
TM 38–230	Preservation, Packaging, and Packing of Military Supplies and Equipment.
TM 38–403	Station Supply Procedure
TM 38–660	Preventive Maintenance for Administrative Vehicles.
TM 38–705	Army Shipping Document
TM 57–210	Air Movement of Troops and Equipment.
TB QM 27	Demolition of Quartermaster Supplies and Equipment.
SB 38–5–3	List of Standard Lubricants, Hydraulic Fluids, Liquid Fuels and Preservative Materials Used by the Department of the Army.
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DA Pam 108–1	Index of Army Motion Pictures, Television Recordings, and Filmstrips.
DA Pam 310–1	Index to Administrative Publications.
DA Pam 310–2	Index of Blank Forms
DA Pam 310–3	Index of Training Publications
DA Pam 310–4	Index of Technical Manuals, Technical Regulations, Technical Bulletins, Lubrication Orders, and Modification Work Orders.
ATP 10–222	Army Training Program for Quartermaster Service Company.
ATT 10–3	Training Test for Quartermaster Service Company.
	Manual for Courts-Martial, United States, 1951.

APPENDIX II

EQUIPMENT DATA

Items*	Number	Weight**	Total Weight**
Engineer			
Ax, chopping, single-bit, handled, 4-pound.	10	5.0	50.0
Mattock, pick, handled, 5-pound.	1	10.8	10.8
Pick, railroad, handled, 7-pound, point and chisel ends.	16	8.0	128.0
Shovel, hand, general purpose, round point, open back, rolled shoulder, tubular shank, size No. 2, D-handle.	18	5.0	90.0
Sledge, blacksmith's, double-face, handled, 8-pound.	4	9.0	36.0
Tool set, carpenter No. 2, complete with tools.	1	28.0	28.0
Ordnance			
Bar, wrecking, gooseneck, claw and pinch paint, ¾ inch in diameter, 24 inches long.	8	4.0	32.0
Chain, tow, 7/16-inch by 16-foot.	1	30.0	30.0
Gun, machine, caliber .50, Brg, M2, heavy-barrel.	1	61.0	61.0
Launcher, rocket, 3.5-inch, M20A1.	3	15.0	45.0
Mount, tripod machine-gun, caliber .50, M3.	1	144.0	144.0

Items*	Number	Weight**	Weight** Total
Puller, nail, 18-inch-long	1	4.6	4.6
Strapping kit, steel strapping, hand, ⅝ x 0.023 in. strapping.	1	100.0	100.0
Tool set, armorer's	1	45.0	45.0
Trailer, water tank, 1½-ton, 2W.	1	2,280.0	2,280.0
Truck—			
Cargo, 2½-ton, 6x6, LWB.	1	12,465.0	12,465.0
Utility, ¼-ton, 4x4, M38A1.	1	2,665.0	2,665.0
Quartermaster			
Bag, canvas water, sterilizing, porous, complete with suspension ropes and cover.	2	18.6	37.2
Bar, crow, wedge point, 56 inches.	8	22.0	176.0
Bucket, general-purpose, metal, galvanized, heavy-weight, without lip, 14-quart.	2	6.0	12.0
Can, corrugated, nesting, galvanized, with cover—			
10-gallon	1	18.2	18.2
16-gallon	1	28.2	28.2
24-gallon	1	32.1	32.1
32-gallon	7	40.7	284.9
Can, gasoline, 5-gallon	5	11.0	55.0
Can, water, 5-gallon	11	12.0	132.0
Case, filed office machine, 18½- by 13¼- by 17-inch.	2	30.0	60.0
Container, food, insulated.	6	31.0	186.0

Items*	Number	Weight**	Weight** Total
Desk, field—			
Empty, fiber, company	1	35.0	35.0
M—1945	1	95.0	95.0
File, paper—			
Clip board, 9- by 15½-inch.	8	1.3	10.4
Flag, guidon, bunting	1	1.0	1.0
Tent, kitchen, fly proof, complete with pins and poles.	1	63.0	63.0
Heater, immersion-type, for can, corrugated.	6	77.0	462.0
Lantern, gasoline, leaded-fuel.	2	6.8	13.6
Outfit, officer's mess	1	50.0	50.0
Perforator, nonadjustable, two-hole.	1	1.7	1.7
Rake, hand, garden, level, 14-tooth.	4	3.3	13.2
Range, field—			
A Pack	1	50.0	50.0
B Pack	3	310.0	930.0
Safe, field, combination lock.	1	180.0	180.0
Stapler, paper fastener, office-type, light-duty.	1	1.2	1.2
Stencil outfit, complete with figures and letters, ½- and 1-inch.	1	2.2	2.2
Tent, command post, complete with pins and poles.	1	255.0	255.0
Tube, flexible nozzle	3	2.0	6.0
Typewriter, nonportable, 11-inch carriage.	2	74.0	148.0

Items*	Number	Weight**	Total Weight**
Signal			
Telephone, set, TA 43/PT.	1	15.0	15.0
Total			21,584.1

* Items of organizational equipment normally issued to and carried by individuals, such as individual weapons, gas masks, and goggles; and items which are authorized only when specifically directed by higher authority, such as barber kit, decontaminating apparatus, and tent stove, are not included in this computation.

** Weights include packaging and crating for oversea shipment.

APPENDIX III

USE OF MATERIALS-HANDLING EQUIPMENT

1. Motor-Driven Equipment

Materials-handling equipment, such as fork lift trucks, tractor-trailer trains, straddle trucks, and cranes, organic to supported element, may be operated by trained personnel of the service company. In their absence, the materials-handling equipment will be operated by specially trained personnel of the installation to which the service company is attached, and the service troops will then do such work as loading pallets and slings, transferring supplies from pallets to carriers, and stacking supplies. If it should become necessary to engage in extensive warehousing operations, FM 10–22 and TM 10–250 should be consulted for technical information.

2. Conveyors

Gravity conveyors are widely used to move supplies from trucks to stacks, to load and unload freight cars, to sort supplies, and to move supplies within storage areas. The following information is valuable in the use of these conveyors:

a. The gravity roller conveyor transports packages over a series of rollers 12 or 18 inches long and 1¾ or 2½ inches in diameter. The roller con-

veyor is issued in straight sections 10 feet long and in 90° curved sections.

b. Work crews should learn to set up conveyor lines quickly, easily, and rigidly. Standard supporting frames are helpful but not necessary. When standard frames are not available, the conveyor line may be set on piles of solid wooden boxes, such as cases of canned goods.

c. The gravity-wheel conveyor is lighter and faster than the roller conveyor but is not so sturdy. The conveyor has wheels on axle rods in place of rollers. Sections are 12½ inches wide by 10 feet long, both curved and straight.

d. On long conveyor lines, it may not be possible to set up the sections so that the packages move by gravity. In such cases, men must be placed along the line to push the packages along.

e. In unloading freight cars, conveyor sections may be placed in the car as soon as the central space between the doors is cleared. The supplies then move out on the conveyor line. If pallets are being used, sections of conveyor may be placed flat on the floor and the loaded pallets pushed along to the car door for removal by fork lift truck. Inverted sections of the gravity-wheel conveyor may be used as a dolly for loaded pallets.

3. Hand Trucks

Hand trucks are valuable for shifting big, awkward containers quickly and safely. A well-trained work detail with hand trucks can move large tonnages rapidly. Two-wheel hand trucks

have capacities up to 600 pounds; four-wheel hand trucks up to 6,000 pounds. The following information is helpful in the use of hand trucks:

a. When pushing a hand truck, the workman should stand erect and lean into the load.

b. When bulky supplies are being handled with a two-wheel truck, an extension may be improvised on the nose of the truck to increase the carrying capacity.

c. When specialized items are being handled with a four-wheel hand truck, the truck may be equipped with stakes, boxes, shelves, or special racks.

d. When bagged goods are being loaded on a hand truck, the bags should be stacked carefully, flat side down. The nose of the two-wheel truck should not be rammed under stacks of supplies in paper bags, because the packages may be damaged.

4. Improvised Equipment

When standard materials-handling equipment is not available, improvised equipment may often serve as a satisfactory substitute.

a. When bulky items are being unloaded from freight cars or trucks, heavy timbers or logs may be leaned against the carrier to provide a base for rollers. Sections of pipe placed on the runners make excellent rollers.

b. Cylindrical items, such as drums, may be loaded by the use of runners and a length of rope. Heavy timbers or logs are dug into the ground

and inclined against the carrier and the supplies raised or lowered by means of a rope.

c. An improvised skid may be used to lower bulky or heavy packages from trucks to the ground. The packages should be eased onto the skid and the speed carefully checked until they reach the ground.

d. Chutes and slides may be built for use when supplies are being moved from a higher to a lower level. They are frequently used when railroad cars must be unloaded from embankments. When heavy material is being unloaded, a ramp may be used to support the chute.

INDEX

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NG: State AG (6); Units—same as Active Army except allowance is one copy to each unit.

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For explanation of abbreviations used, see SR 320-50-1.

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