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DEPARTMENT OF THE ARMY FIELD MANUAL

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TRANSPORTATION Studies

TERMINAL BATTALION

AND

TERMINAL SERVICE

COMPANY

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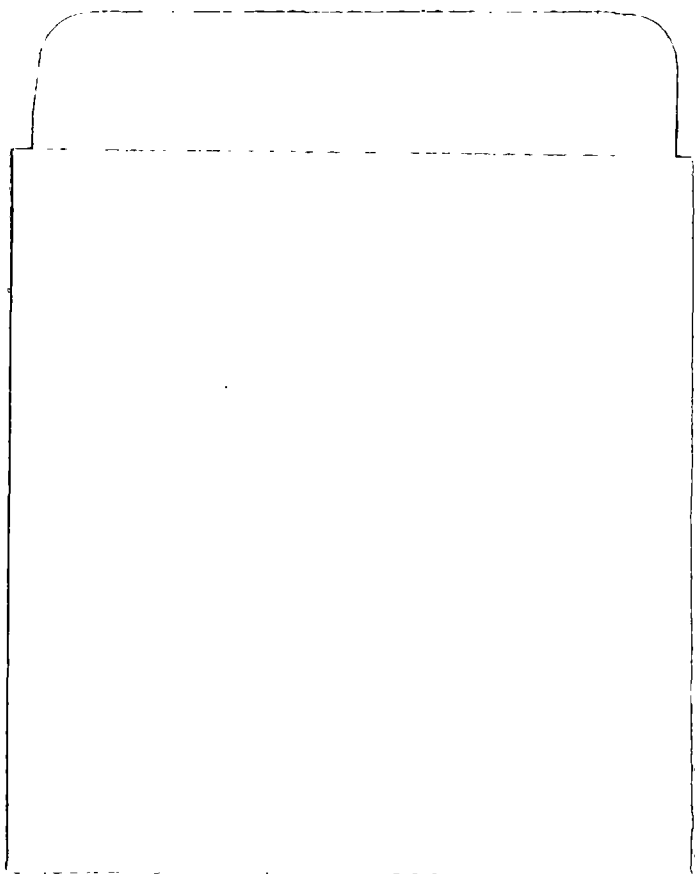


HEADQUARTERS, DEPARTMENT OF THE ARMY
JULY 1957

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FIELD MANUAL }
 No. 55-52

HEADQUARTERS,
 DEPARTMENT OF THE ARMY,
 WASHINGTON 25, D. C., 30 July 1957

TRANSPORTATION TERMINAL BATTALION AND TERMINAL SERVICE COMPANY

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* This manual supersedes paragraph 3 through 15 and 47 through 52 of FM 55-110, 5 November 1952, and DA Training Circular 55-3, 12 August 1955.

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PART ONE

GENERAL

CHAPTER 1

INTRODUCTION

1. Purpose and Scope

This manual provides a guide for all personnel concerned with the activation, organization, training, and employment of the headquarters and headquarters detachment, transportation terminal battalion, and the transportation terminal service company. It includes the mission, assignment, capabilities, organization, equipment, employment, and training of the headquarters and headquarters detachment, transportation terminal battalion, and the transportation terminal service company. The manual contains details of the operation of these units and the duties and responsibilities of their key personnel. It also describes briefly the capabilities of the units which may be assigned or attached to the terminal battalion. The material presented herein is applicable without modification to both atomic and nonatomic warfare.

2. Definitions

a. As used herein the term *terminal battalion* refers to the headquarters and headquarters detachment, transportation terminal battalion, with the units assigned and/or attached to it.

b. As used herein, the term *wharf* refers to a structure built alongside or into the water, having accommodations for vessels alongside.

c. As used herein the term *pier* refers to a wharf which extends into the water far enough to have berthing accommodations for vessels on two or more sides.

d. As used herein the term *quay* refers to a wharf which extends along a shoreline and has berthing accommodations for vessels on one side only.

3. References

Detailed information about cargo handling operations will be found in FM 55-110. Detailed information on cargo documentation is contained in AR 745-16 and SR 55-730-10.

PART TWO

TRANSPORTATION TERMINAL BATTALION

CHAPTER 2

GENERAL

4. Mission and Assignment

a. The general mission of the transportation terminal battalion is the receipt and transshipment of personnel and material in terminal type operations.

b. The transportation terminal battalion is normally assigned to a transportation terminal command (fig. 1). In special situations, such as when engaged in operations at an isolated two-ship terminal or at an inland terminal or transfer point, the terminal battalion may be operated separately under the supervision of the appropriate staff transportation officer of a logistical type command. In an amphibious assault the transportation terminal battalion is usually attached to the engineer amphibious support command.

5. Types of Operational Areas

a. General. Normal operational areas of the transportation terminal battalion are water terminals and inland terminals or transfer points.

b. Water Terminals. Water terminals may be ocean terminals with fixed wharf facilities, inland waterway terminals, or beaches.

(1) *Ocean terminals.*

(a) Ocean terminals with fixed wharf facilities vary in size from very large deepwater ports with several finger type piers, quays, and drydocking and marine maintenance facilities to small, shallow-draft one- or two-wharf ports. In the larger deepwater ocean terminals, pier sheds, sorting areas, rail sidings, roadways, office space, and billet facilities are generally available. In some areas, particularly in northern Europe, the large deepwater terminals have shoreside cranes located on the wharves.

(b) The location of the ocean terminal may be one where the tidal range will interfere with operations. In the

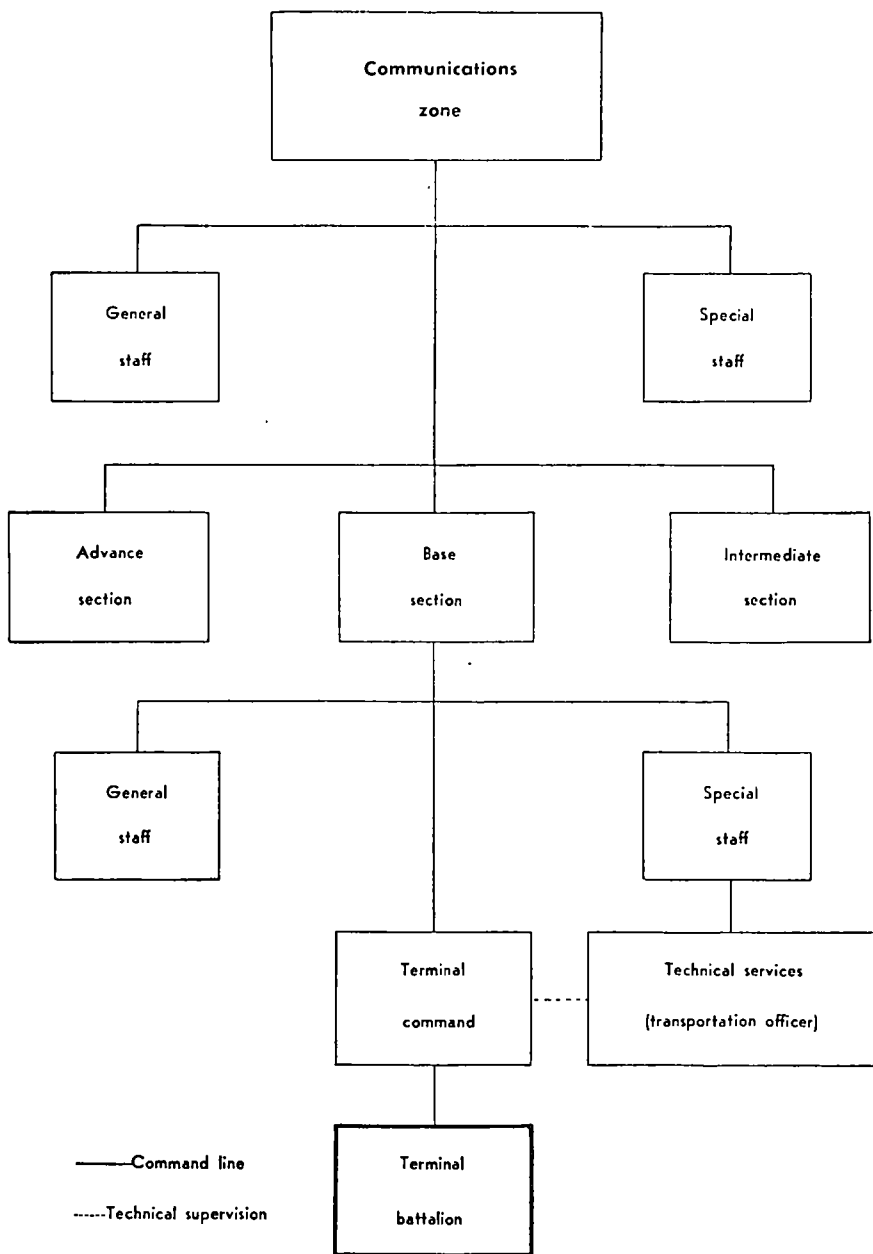


Figure 1. Organizational chart of a large communications zone showing position of the terminal battalion.

Mediterranean the tidal range is very small. Vessels are able to move at any time because the depth of water remains relatively constant. In northern Europe, where the tidal range is several feet, wharves are located within locked-in basins where a constant depth of water is maintained. This condition is found in many terminals located on rivers some distance from the coastline. Entrance to and exit from the basin is made only on the higher range of the tide so that the depth of water in the basin can be maintained. Navigational hazards and the depth of water in the river between the sea and the terminal may prevent a heavily laden vessel from sailing upriver to the port area except in good weather and at or near high tide.

- (c) Ocean terminals in neutral or allied countries will remain under the control of the national authorities. Control of ocean terminals captured from the enemy will normally be retained by the military as long as the military situation demands.
 - (d) Because of the concentration of facilities, large ocean terminals are particularly vulnerable to atomic attack.
- (2) *Inland waterway terminals.*
- (a) Inland waterway terminals, as distinguished from ocean terminals located upriver from the coastline, are terminals located on rivers, inland lakes, inland channels, and canals of insufficient depth to accommodate ocean-going vessels.
 - (b) Inland waterway terminals are served by inland waterway craft characterized by shallow draft, good maneuverability, and minimum clearance. Inland waterway craft can be adapted to carry bulk type cargo such as rations, petroleum products, ammunition, coal, heavy construction material, rail cars, or motor vehicles. Some inland waterway terminals may have special facilities for handling bulk liquid, dry, or solid cargo. Support for the civilian economy may be handled through the inland waterway terminal. Cargo handling equipment of the terminal service company will facilitate the handling of general cargo moving through the terminal.
 - (c) Direct discharge from the ocean carrier into inland waterway craft for movement inland will expedite terminal clearance. At the inland waterway terminal, cargo can be transferred to other modes of conveyance, broken down from bulk shipments and reshipped in

small units, or collected from other points and consolidated for reshipment.

- (d) Operations at the inland waterway terminal generally will not present sufficient concentration for a good atomic weapons target.

(3) *Beach areas.*

- (a) A beach area presents the most difficult of operational areas. The dispersed operations generally require more personnel and equipment. A beach area may be on the open sea where surf action, tide, beach gradient, beach composition, and the beach backup area present operational difficulties. On sheltered water where the beach area is protected by some terrain feature, these difficulties are lessened. The beach area may be that over which the amphibious assault has occurred, or it may have been selected for the logistical over-the-shore (LOTS) operation.
- (b) Because vessels being worked at beaches are normally riding at anchor, beach operations are dependent upon favorable weather conditions. Amphibious or landing craft operations alongside a vessel are particularly hazardous if more than a moderate sea is running. Heavy surf conditions necessarily restrict or curtail the handling of cargo brought in by landing craft.

c. Inland Terminals and/or Transfer Points. Inland terminals and/or transfer points are those locations where cargo is transferred from one mode of transportation conveyance (other than ocean carrier) to another. Transfer points are located at rail-heads; truckheads; aerial-tramway, overland-conveyor, inland waterway, and air terminals; and points along railway lines where the gage changes or the line is interrupted (for example, by the destruction of a bridge). Amphibious-truck-to-cargo-truck transfer points fall within this general classification, although they are more directly associated with the beach operation. In the selection of sites for transfer points, the facilities available for the transfer of cargo and the construction effort necessary to prepare facilities for efficient operation must be considered. Rail sidings and marshaling yards, truck parks and loading platforms, road net, cargo handling equipment, billets or camp sites, personnel to document the cargo and operate equipment, and laborers are some of the more essential factors to be considered. Behind many of the large ports in England, the port authority has constructed large in-transit storage areas to which cargo unloaded from the ocean carrier can be cleared immediately. These areas have storage sheds, truck loading platforms, rail sidings, and marshaling yards,

and they are ideal transfer points as well as temporary storage and segregation areas.

6. General Composition for Employment in Various Operations

a. Water Terminal Operations.

(1) *Using fixed wharf facilities.* At water terminals having fixed wharf facilities, the usual composition of the terminal battalion (fig. 2) is one headquarters and headquarters detachment, transportation terminal battalion (fig. 3), and four transportation terminal service companies (fig. 4). In this type of operation, tugboat and barge cells (TOE 55-500) may be attached to facilitate discharge or loading on the offshore side of the ship simultaneously with discharge or loading to and from the wharf. Heavy floating cranes may also be provided to discharge or load heavy lifts. When dispersion is not too great, these special types of units (tugboat, barge, and floating crane) are normally assigned to the terminal command and are dispatched to the terminal battalion as required.

(2) *Beach or logistical over-the-shore discharge.* In beach or LOTS operations, the normal composition of the terminal battalion will be one headquarters and headquarters detachment, transportation terminal battalion, and any combination (normally not to exceed the equivalent of four terminal service companies) of terminal service companies, amphibious truck companies (fig. 5), heavy boat companies (fig. 6), transportation boat companies (fig. 7), and aerial tramway companies (fig. 8). See paragraphs 52 to 55 for the mission and capabilities of the four last-mentioned units. A possible composition of a terminal battalion tailored for this type of operation (fig. 9) might be one headquarters and headquarters detachment, two terminal service companies, and a composite support unit organized as follows: one transportation boat company minus three boat platoons, one platoon of amphibious trucks, and one platoon of heavy boats. The actual composition of the terminal battalion will vary with the individual mission.

b. Inland Terminal and/or Transfer Points. At inland terminals and/or transfer points the normal composition of the terminal battalion (fig. 2) may be one headquarters and headquarters detachment and up to four terminal service companies. The nature of the cargo to be moved may require more heavy lift equipment and/or warehouse tractors and trailers than the normal equipment

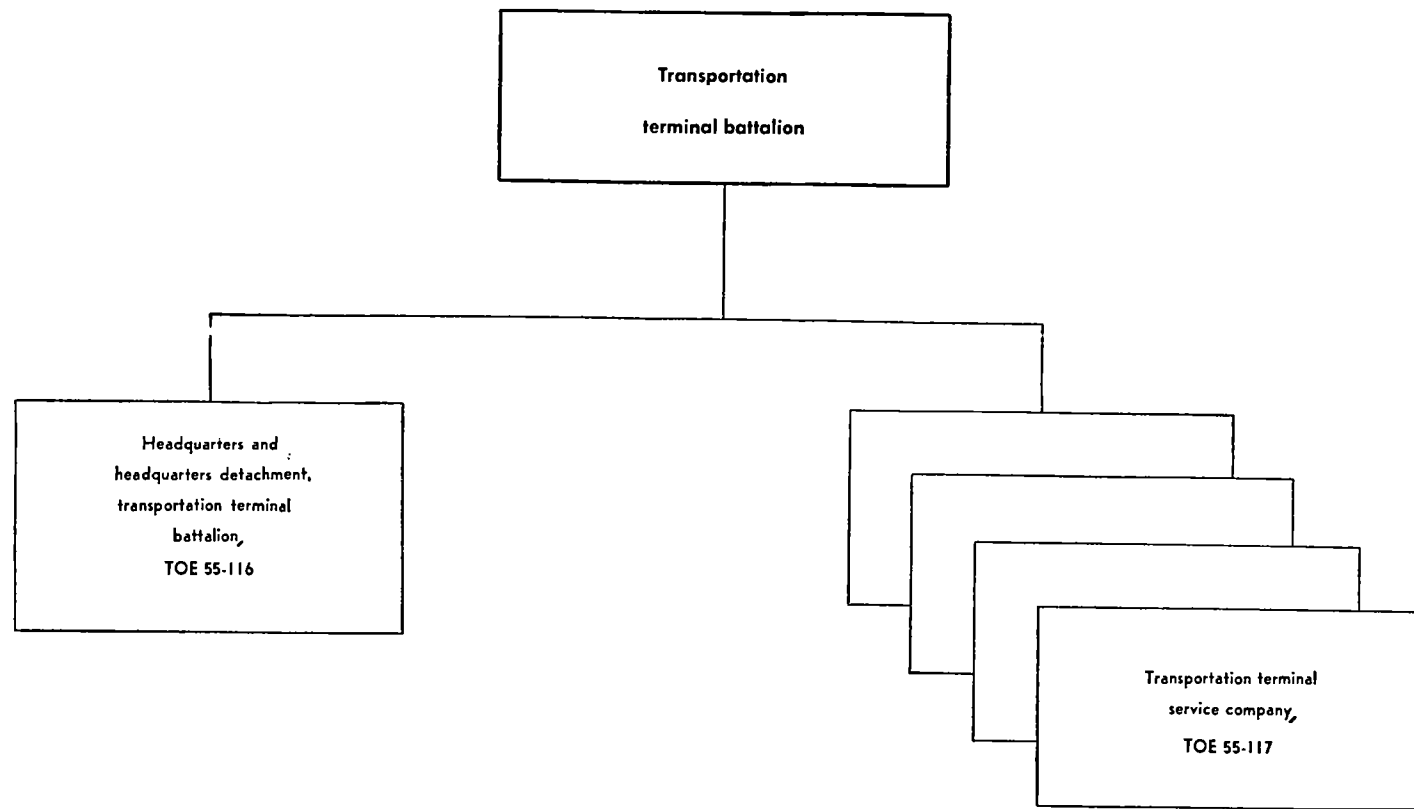


Figure 2. Normal composition of a transportation terminal battalion when operating over fixed wharf facilities.

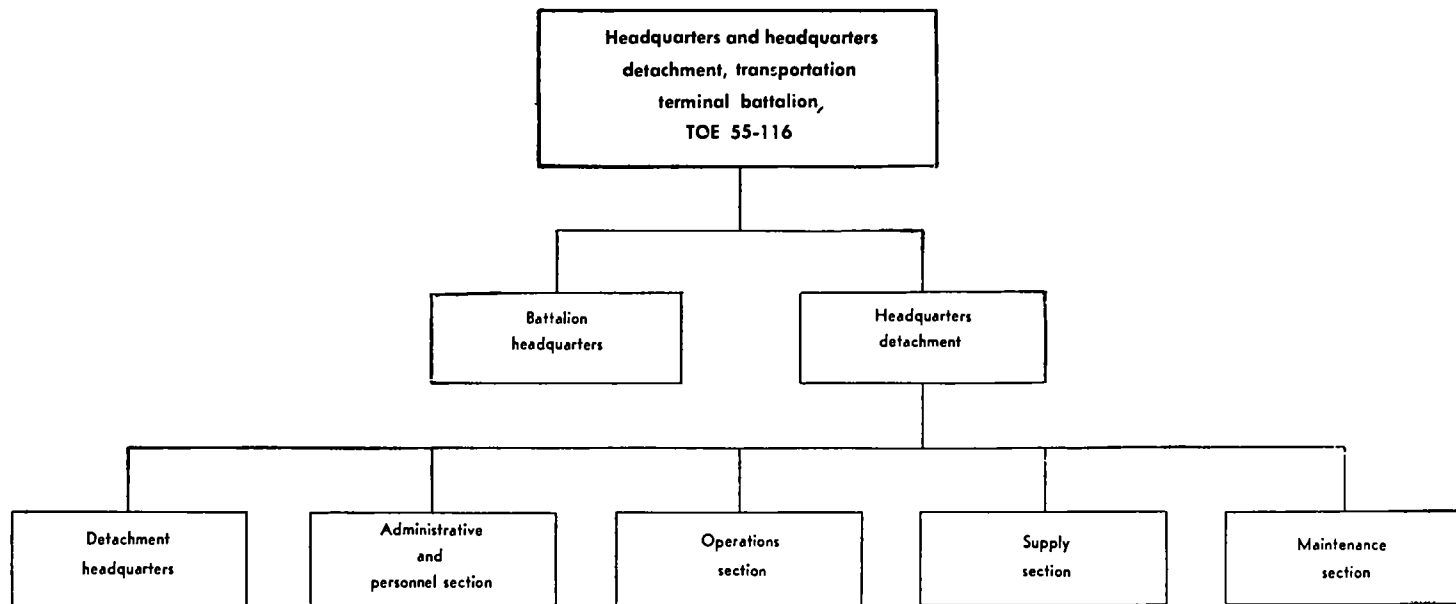


Figure 3. Organizational chart of headquarters and headquarters detachment, transportation terminal battalion.

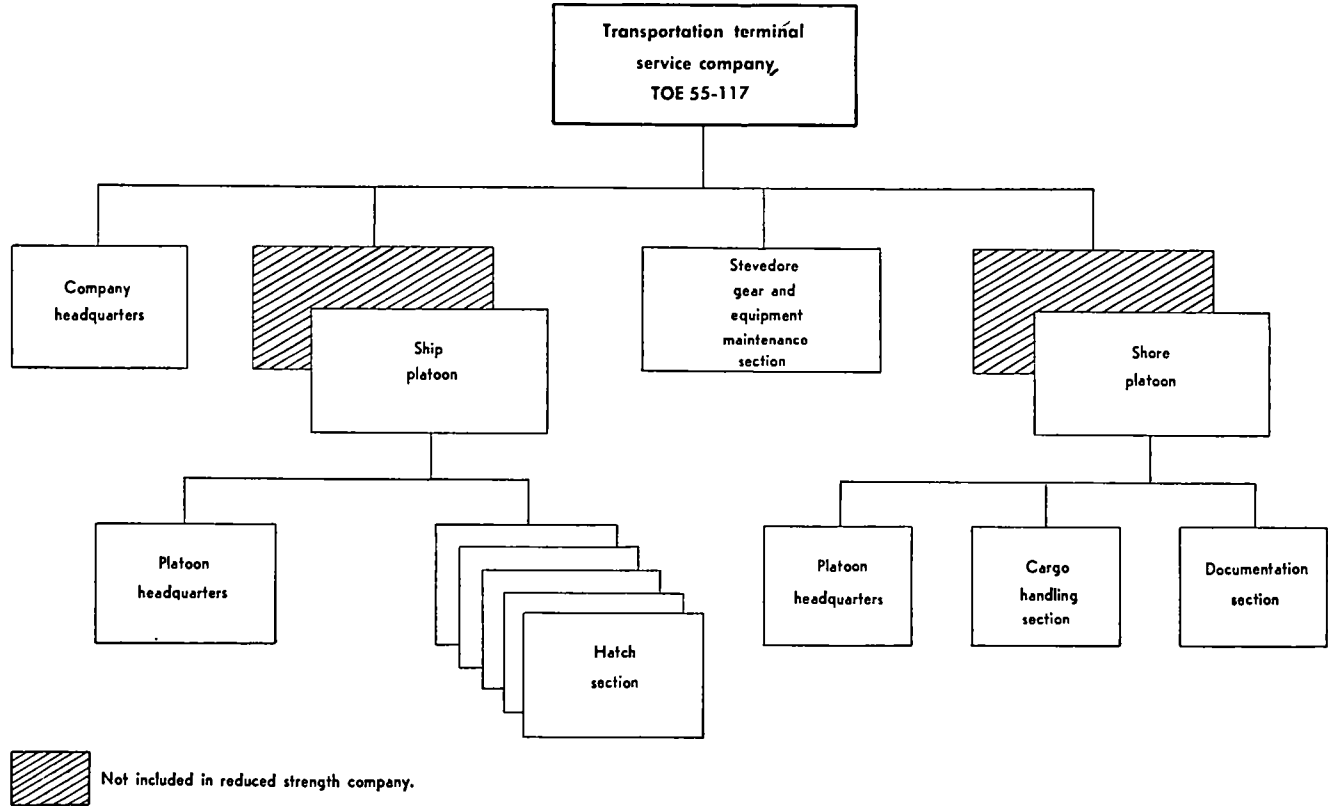


Figure 4. Organizational chart of a transportation terminal service company.

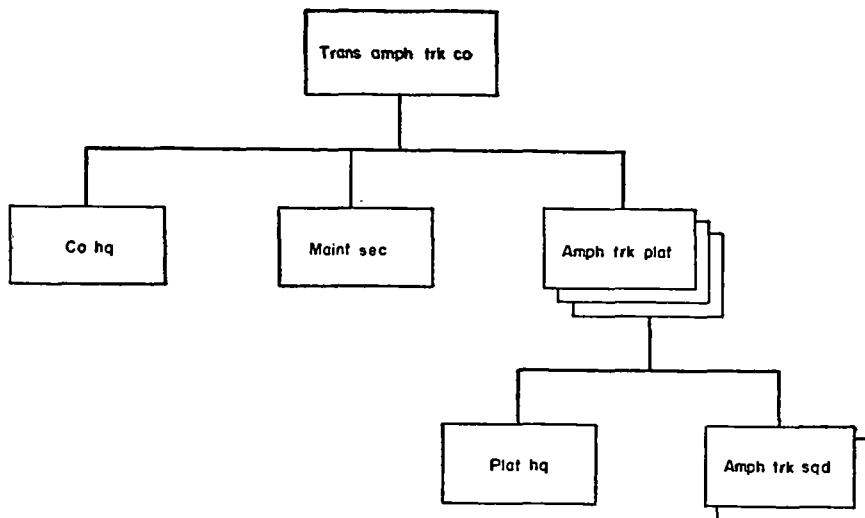


Figure 5. Organizational chart of a transportation amphibious truck company, army or communications zone.

of the terminal service company. The estimate which determines the requirement for a transportation terminal battalion to operate an installation also determines the composition of the battalion and the requirement for additional equipment. The order which assigns the battalion to the mission should quote the necessary authority and basis of issue for additional equipment. These items of equipment may be drawn as class IV supply items from appropriate supply agencies when required. The use of such equipment generally frees sufficient personnel competent to operate it. A requirement for augmentation to the company maintenance personnel, however, will normally exist when more than a few additional items of equipment are drawn.

7. Flexible Organization

a. The transportation terminal battalion is necessarily a flexible organization, its components varying according to the needs of a particular operation. Tailoring is accomplished by varying the number and types of units assigned, attached, or in support of the battalion for each mission. The internal organization of subordinate companies, except those rendering supporting services (par. 6a(2)) and transportation service units organized under TOE 55-500, normally is not changed to adapt to a particular battalion mission.

b. In addition to the units listed in paragraph 6a(2), certain other transportation units may be assigned, attached, or placed in direct support of the terminal battalion. These units include trans-

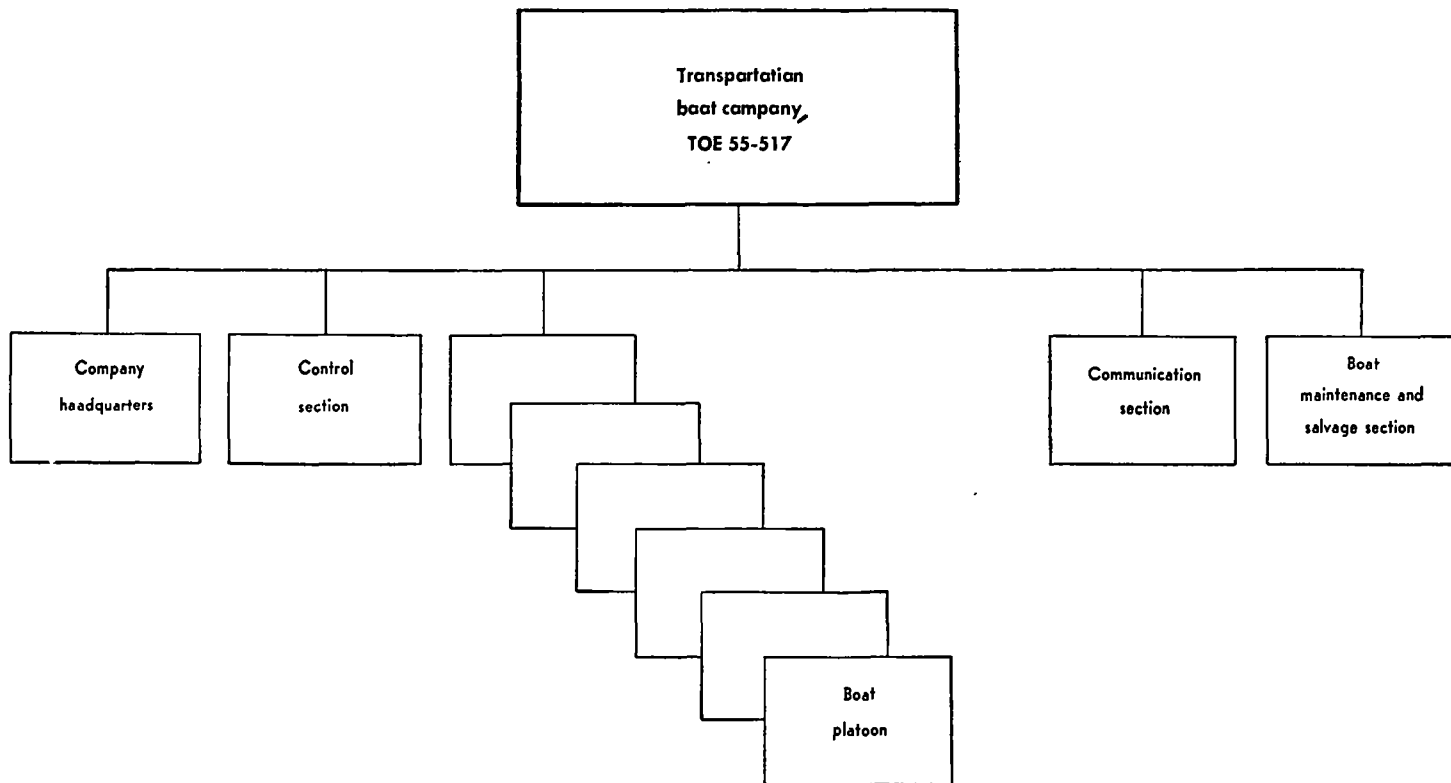


Figure 7. Organizational chart of a transportation boat company.

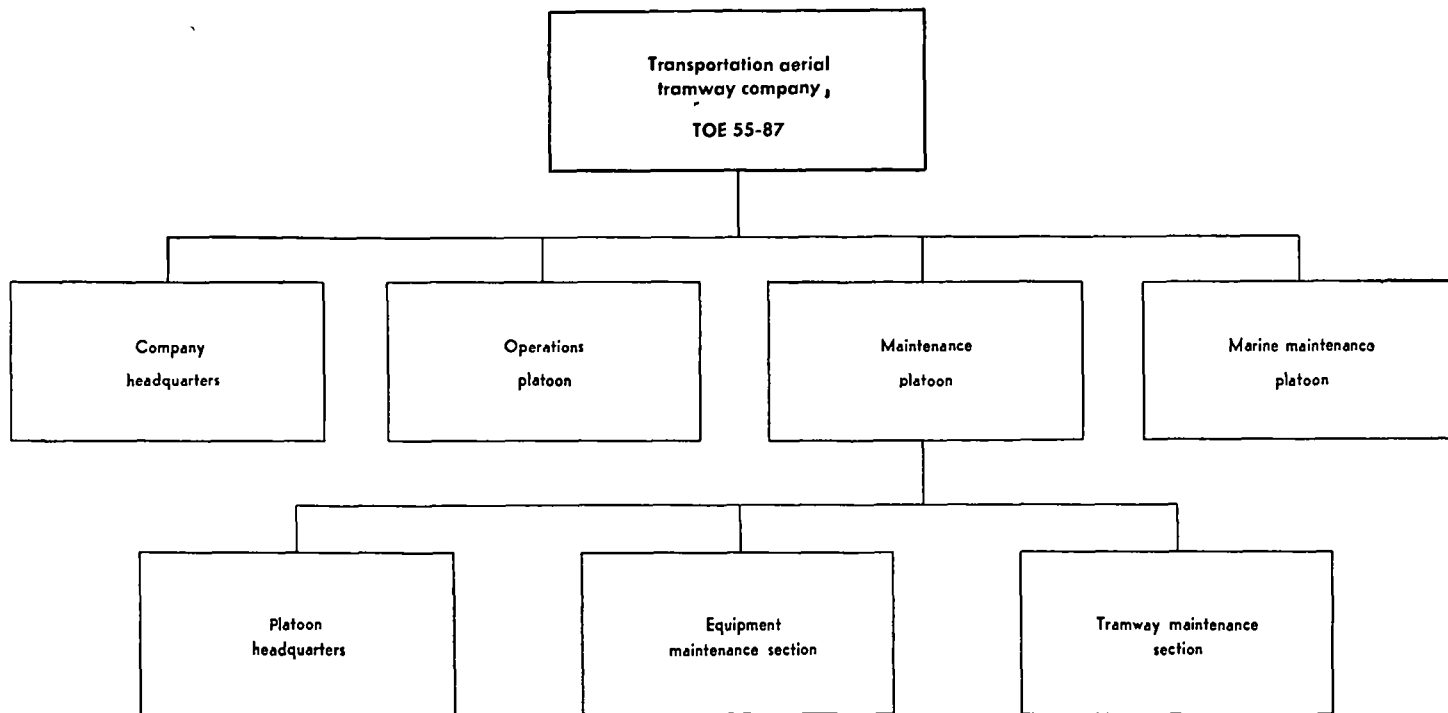
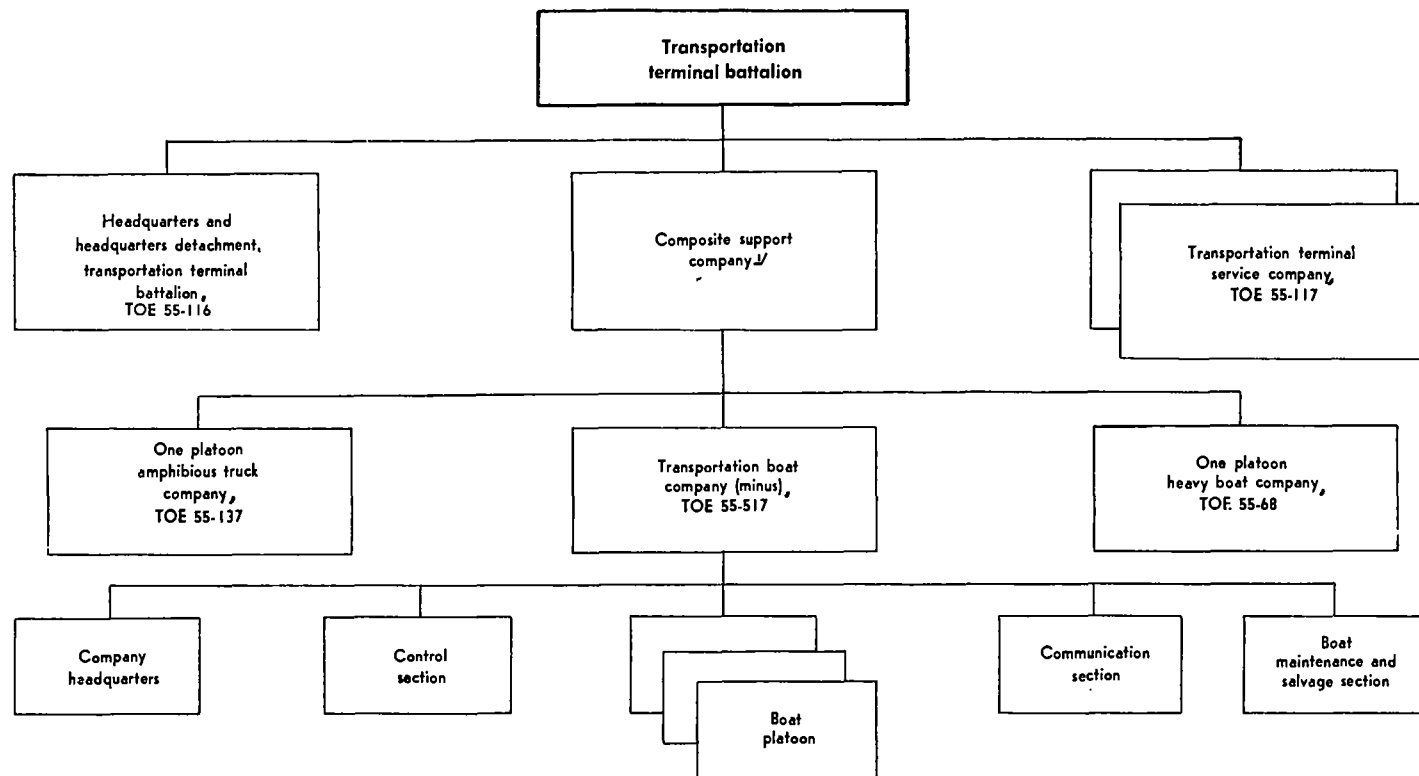


Figure 8. Organizational chart of a transportation aerial tramway company.



Composition of the composite support company will vary according to requirements for particular missions; above company is not necessarily a normal or approved organization.

Figure 9. Possible composition of a transportation terminal battalion when operating over the shore.

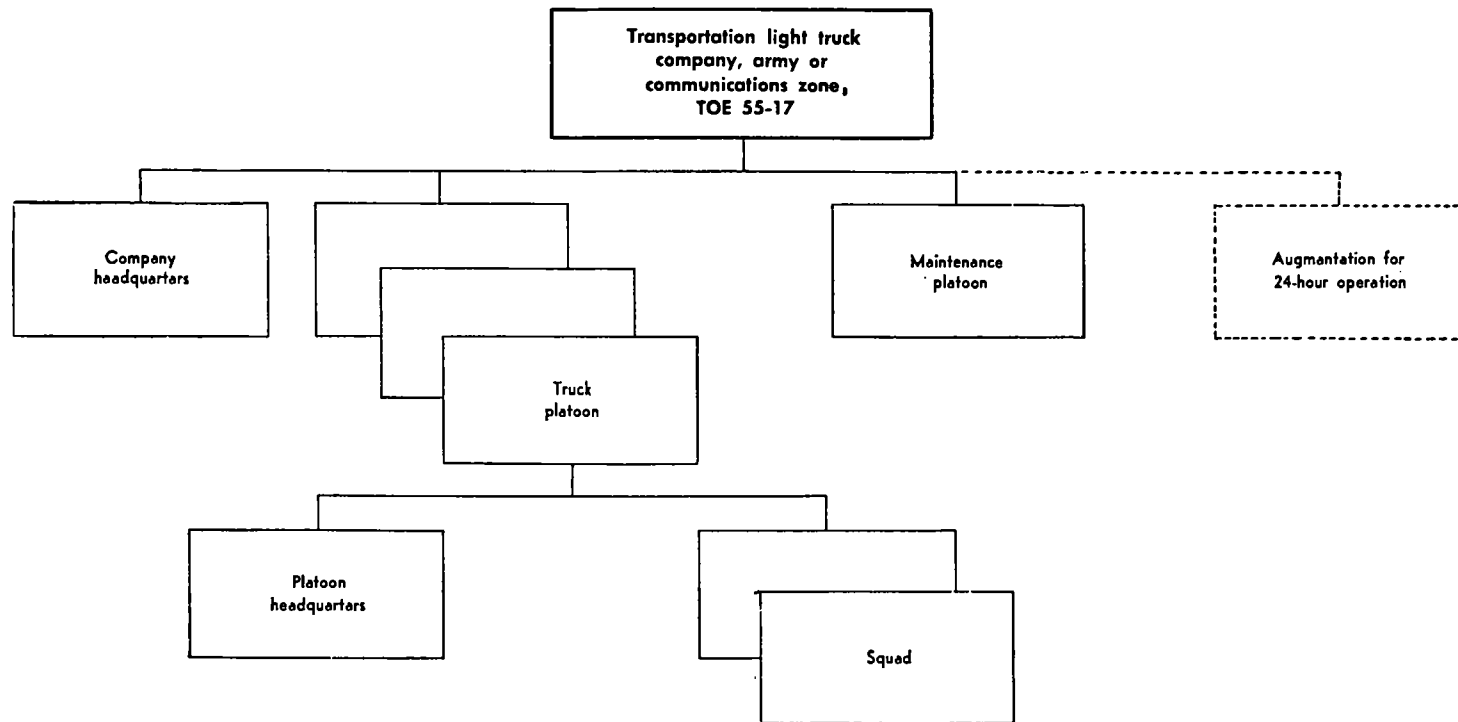
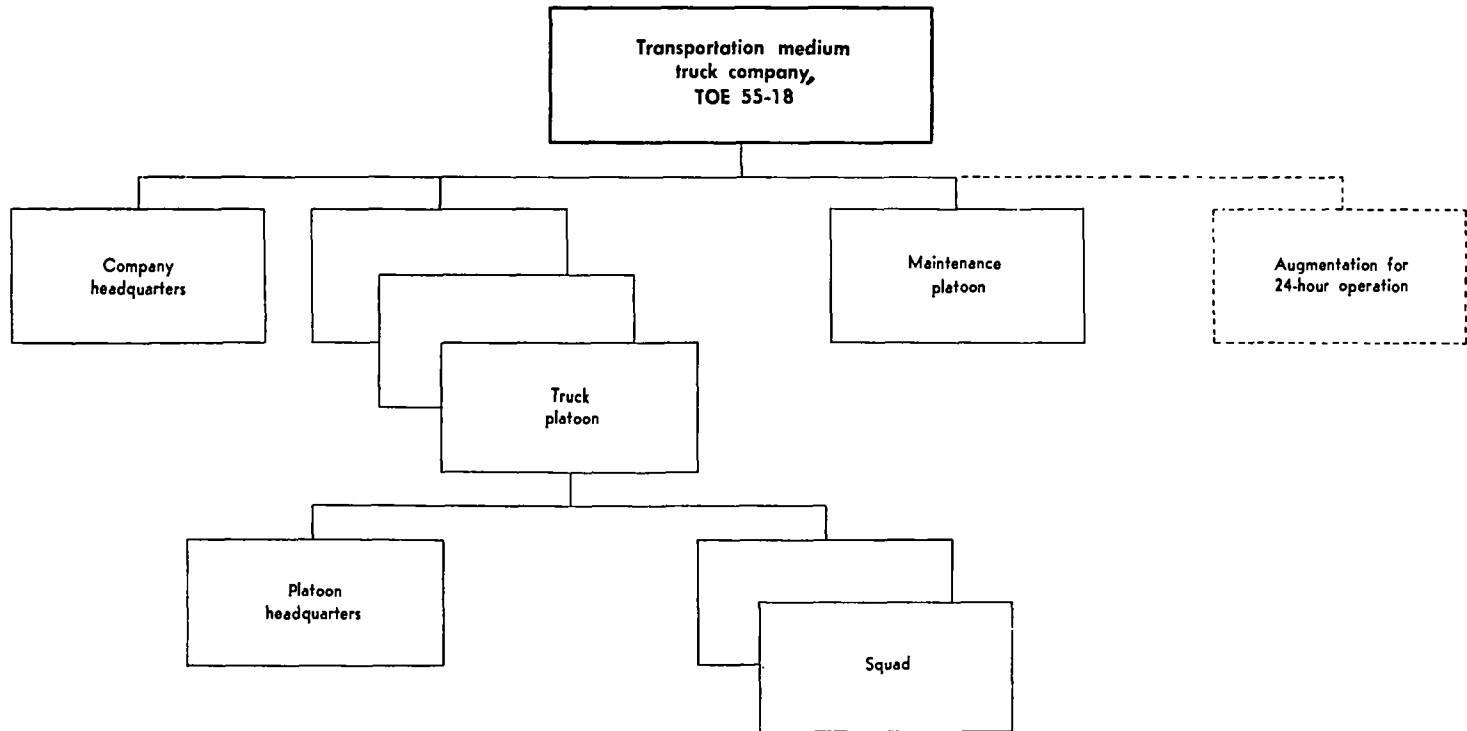
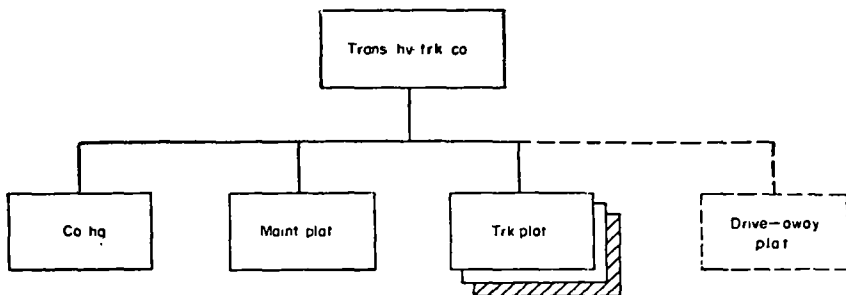


Figure 10. Organizational chart of a transportation light truck company, army or communications zone.



10 each task vehicles per squad.

Figure 11. Organizational chart of a transportation medium truck company.



Not included in reduced strength company

Figure 12. Organizational chart of a transportation heavy truck company.

8. Capabilities

The capabilities of the transportation terminal battalion are based entirely upon the number and type of units (pars. 6 and 7) assigned or attached to accomplish a particular mission. For example, a terminal service company has a normal planned capability (par. 38) of handling 720 short tons of cargo per day. Accordingly, a terminal battalion composed of two terminal service companies and adequate supporting units would normally have a planned daily capability of 1,440 short tons.

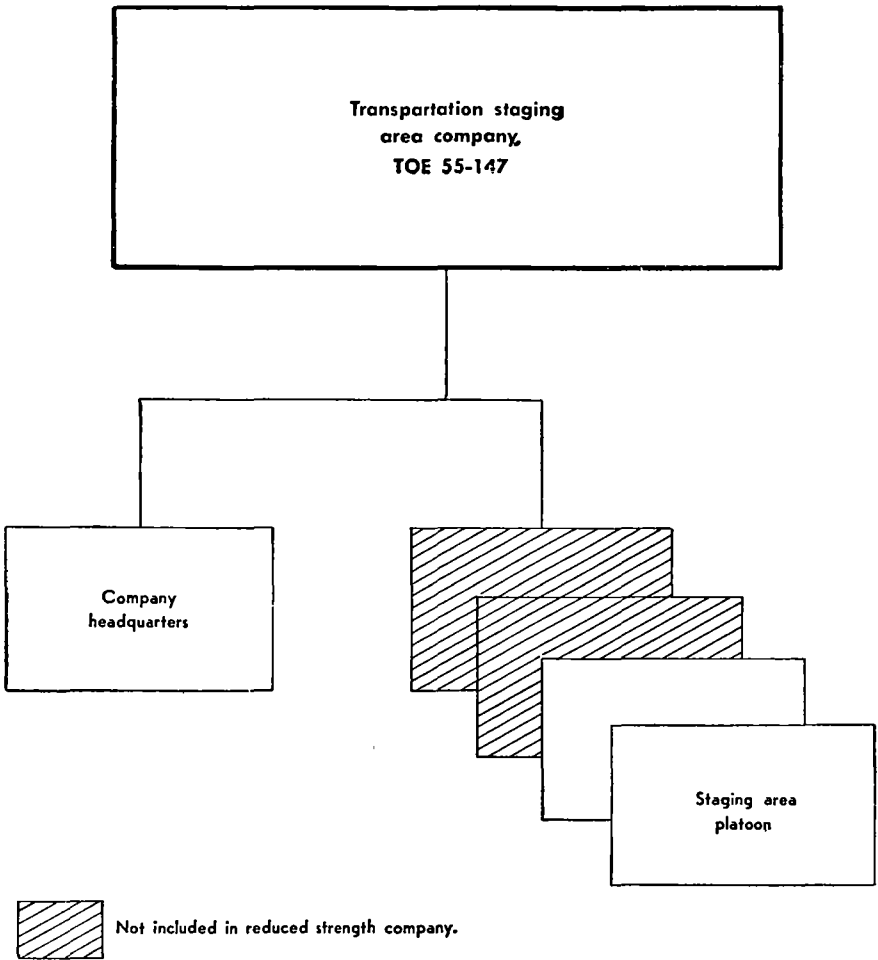


Figure 13. Organizational chart of a transportation staging area company.

CHAPTER 3

THE BATTALION COMMANDER

9. Command

Command over all assigned and attached troops is vested in the battalion commander, who is a member of the headquarters and headquarters detachment, transportation terminal battalion. A detailed discussion of command principles is contained in FM 100-5 and AR 220-60.

10. Responsibilities

The battalion commander is responsible for training and for the efficient and economical direction of all battalion activities. He cannot delegate these responsibilities. The battalion commander insures the smooth and orderly flow of troops and equipment through the battalion area.

11. Relations With Others

a. Staff. The battalion commander maintains close personal relationship with the members of his staff (par. 12), encourages their expression of ideas, and keeps them fully informed of his policies.

b. Subordinate Commanders. The flexible organization of the terminal battalion (par. 7) requires that the battalion commander make maximum use of technical advice and guidance from subordinate commanders. Because of the special service performed by units in direct or general support, it is particularly advisable for the battalion commander to seek technical advice and guidance before he issues formal orders to or requests support from commanders of these units.

CHAPTER 4

BATTALION STAFF AND STAFF SECTIONS

Section I. ORGANIZATION AND PROCEDURES

12. Organization

The staff of a transportation terminal battalion is organized into the unit staff and the special staff (fig. 14). The commanders of subordinate units are available for technical advice and guidance (par. 11*b*). For further detail on staff organization, refer to FM 101-5.

a. Unit Staff. The members of the unit staff are advisers to the battalion commander and are planners, coordinators, and supervisors of the battalion terminal operations, administration, and supply and maintenance activities. They must be thoroughly familiar with the organization, capabilities, and operations of units of the battalion but must keep free of participation in the activities of these units so that they may continually estimate the situation within their respective fields of responsibility. Because of the magnitude of the maintenance task in a terminal battalion, the maintenance officer of the terminal battalion serves as a unit staff officer.

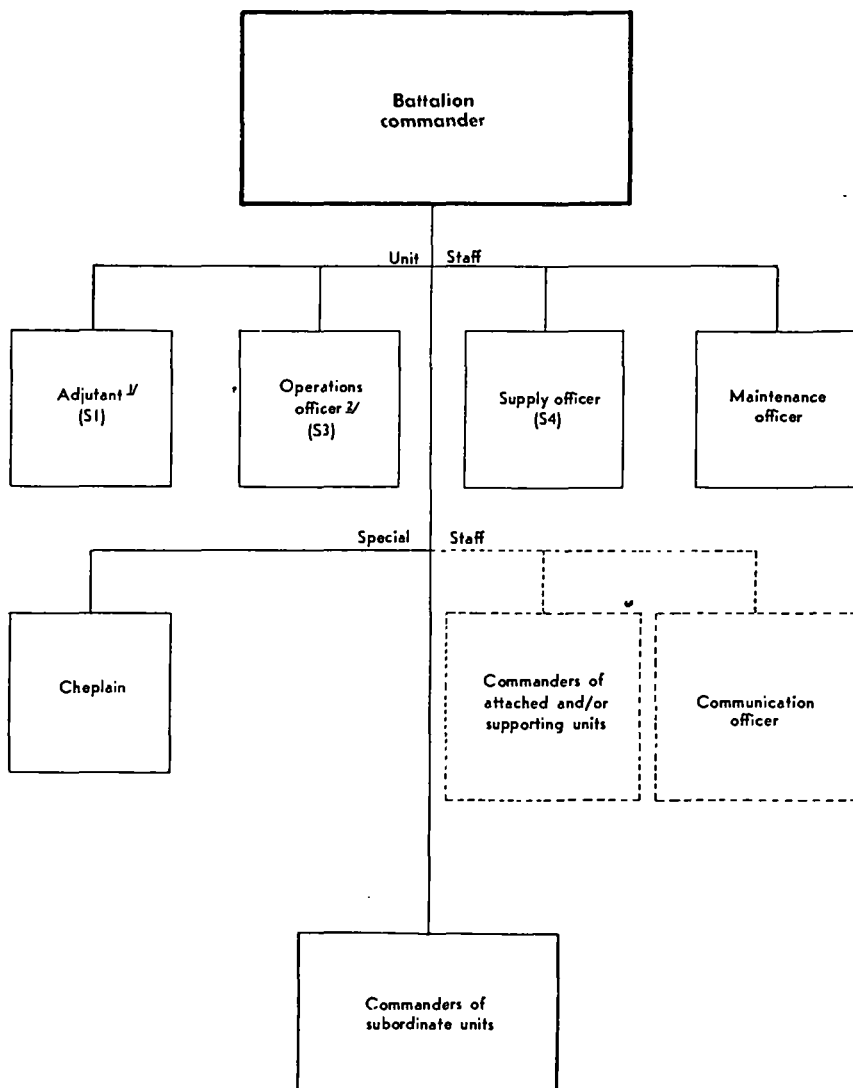
b. Special Staff. In the terminal battalion the special staff consists of the chaplain. Commanders of attached and/or supporting units may be used in the capacity of special staff officers. In special situations and under special theater allocations, other special staff officers, such as a communication officer, may be available.

13. Staff Functioning, Coordination, and Cooperation

The staff working as a team assists the battalion commander in the discharge of his responsibilities (par. 10). For further detail on staff functioning, coordination, and cooperation, refer to FM 101-5.

14. Flexibility of Staff Operations

The staff of the terminal battalion must be organized to function continuously on a 24-hour basis. To do this, each officer of the staff must be generally familiar with the duties of other members of the staff. From time to time, any of them may be required to advise personnel on shift in other sections. To organize for con-



1/ Also acts as intelligence officer and headquarters detachment commander.

2/ Also acts as executive officer.

Figure 14. Staff organization, transportation terminal battalion.

tinuous operations, rosters for shifts should be established to insure that all personnel are allowed sufficient time from their sections for rest, meals, and staff visits. Often during quiet periods a duty-officer system can be used.

15. Duties of Staff Personnel and Staff Sections

TOE 55-116 provides only an adjutant (S1), an operations officer (S3), a supply officer (S4), a maintenance officer, and a chaplain on the staff of a terminal battalion commander (fig. 14). Specific assignment of additional duties (such as intelligence officer) will vary according to the ability of the assigned officers, the will of the battalion commander, and the operating conditions in a particular situation.

a. Adjutant (S1). The adjutant (S1) of the terminal battalion serves also as the commanding officer of the headquarters detachment and normally as the battalion intelligence officer. For the specific duties for each of these functions, refer to FM 101-5. The adjutant works with and supervises the activities of the detachment headquarters and the administration and personnel section (fig. 3).

- (1) *Detachment headquarters.* The detachment headquarters furnishes the administrative, supply, and maintenance services for the headquarters detachment.
- (2) *Administration and personnel sections.* The administration and personnel section supervises mail and correspondence activities for all subordinate units, operates the battalion message center, performs miscellaneous duties such as recording proceedings of boards or courtsmartial, and handles all administrative matters pertaining to personnel actions of assigned or attached units. The battalion military personnel warrant officer at the direction of the battalion commander may establish a consolidated personnel office where all personnel matters for the entire battalion are handled; otherwise each unit operates its own personnel office. In either event, the battalion personnel warrant officer is responsible for the supervision of personnel matters for all subordinate units. A standing operating procedure (par. 17) may be issued to cover this responsibility.
- (3) *General.* A further discussion of the individual duties of the enlisted personnel in the detachment headquarters and the administration and personnel section is contained in paragraphs 28 and 29.

b. Operations Officer (S3). The operations officer (S3) of the terminal battalion is the battalion executive officer and generally serves as the communication officer. For the duties of an executive officer,

an operations officer (S3), and a communication officer, refer to FM 101-5. The operations officer and his assistant keep the battalion commander informed on the status of operations within the battalion. They work with and supervise the operations section (fig. 3). This section performs the duties detailed in (1) through (7) below. (A further discussion of the individual duties of the enlisted personnel of the operations section is contained in par. 30.)

- (1) Exercises operational control over loading, unloading, or cargo transfer operations and over unit training of assigned or attached units.
- (2) Selects and/or recommends units for various missions.
- (3) Coordinates the operations of subordinate units with the terminal command or appropriate higher headquarters.
- (4) Directs the processing of records of cargo handled by the units of the battalion.
- (5) Controls the battalion communication network.
- (6) Coordinates plans for the reception of ships, loading and discharge operations, and clearance of cargo. This includes the securing of additional support, such as special or heavy lift equipment, for its assigned units.
- (7) Is responsible for the overall supervision of the documentation activities of the battalion. The operations officer at the direction of the battalion commander may consolidate the documentation sections of the terminal service companies and operate a centralized documentation center if operating conditions permit.

c. Supply Officer (S4). The supply officer (S4) supervises all supply operations of the battalion and, under the direction of the battalion commander, is responsible for the procurement of supplies for the various battalion units. He is assisted by the supply warrant officer, who supervises the activities of the supply section (fig. 3). These activities include consolidation of requisitions for equipment, supplies, and rations; drawing these items from the depots and breaking them down for issue to subordinate units; and maintaining a record of the status of supplies of subordinate units. A further discussion of the duties of the individual enlisted personnel in the supply section is included in paragraph 31.

d. Maintenance Officer. Although maintenance of vehicles and equipment of subordinate units is the responsibility of the battalion commander, the maintenance officer acting for the battalion commander supervises the maintenance of vehicles and equipment of the companies assigned or attached to the battalion. He insures that each subordinate unit maintains its vehicles and equipment as required by existing directives. He supervises the proper recording of unit maintenance and conducts inspections of equipment as necessary. If

deemed advisable by the battalion commander, a consolidated maintenance shop where all organizational maintenance is accomplished may be established under the direct supervision of the maintenance officer. Enlisted personnel of the maintenance section (fig. 3) assist the maintenance officer. They perform the required maintenance on the detachment vehicles and on the radios of all assigned or attached units. A further discussion of the duties of the enlisted personnel of the maintenance section is contained in paragraph 32.

e. Chaplain. The chaplain is responsible for advising the battalion commander in matters relating to the moral and religious welfare of the battalion and for providing religious guidance for the battalion headquarters and all assigned or attached units. For details of the duties of the chaplain, refer to FM 101-5.

16. Records and Reports

a. Commanders of theaters of operations prescribe formats for recurring administrative and operation reports peculiar to their theaters. In the terminal battalion, records and reports should be held to an absolute minimum. It is desirable that the battalion commander be kept informed of the situation within the battalion through maps, overlays, sketches, charts, and graphs. The desires of the battalion commander and the individual characteristics of the various staff officers will govern procedures in this respect. The operation reports of interest to the battalion are those required by the higher commands; those required by the terminal battalion from subordinate units; and those originating within the terminal battalion which are required for historical and statistical purposes.

b. For further discussion and detail on reports and records, refer to FM 101-5.

17. Standing Operating Procedure (SOP)

a. The mission of the terminal battalion (par. 4) is to receive, process, and transship cargo and personnel and to accomplish the documentation necessary to account for and record the movement of such personnel and material. The carriers are most commonly water conveyances (ships or small craft) and land conveyances (truck or rail). Since each item of mission equipment of each mode of conveyance has similar characteristics to the other mission equipment of that mode, the operations of the terminal battalion can be reduced to certain basic techniques which lend themselves to definite or standardized procedures without loss of effectiveness. This permits use of standing operating procedures (FM 101-5).

b. Standing operating procedures may be used effectively in, but are not necessarily limited to, the following types of terminal battalion operations:

- (1) Boarding party composition and procedure.
- (2) Preparation of a ship for discharge.
- (3) Ship discharge.
- (4) Operation of temporary storage and/or cargo segregation areas.
- (5) Documentation (app. III).
- (6) Actions required in a hurricane.
- (7) Actions required in CBR defense.
- (8) Actions required in damage control.

c. Standing operating procedures may also be used for administrative functions such as—

- (1) Displacement, occupation, and organization of a battalion area.
- (2) Location and operation of unit personnel clerks.
- (3) Location and operation of unit maintenance personnel.

18. Operation Orders

A complete discussion of orders can be found in FM 101-5. As discussed in paragraph 17, many of the operations of the transportation terminal battalion can be covered by a standing operating procedure, thereby decreasing the need for formal orders. However, a formal order, either oral or written, must be issued when an operation is not fully covered by a standing operating procedure.

19. Preparation of Orders

Most orders are prepared by S3 after the other members of the staff furnish a draft of those paragraphs of the order pertaining to their field of responsibility. Upon approval of the proposed order by the battalion commander, S3 authenticates and publishes the order.

Section II. BATTALION COMMAND POST

20. General

The battalion command post is located centrally with respect to the troop unit bivouac areas. Unless the command post has been designated by higher command, the battalion commander selects it after consultation with his staff. The battalion commander and his staff constitute the command group, which operates from the command post. The command post is organized to furnish space and facilities for the required officer and enlisted personnel and includes the battalion communication center.

21. Interior Arrangement

a. There is no set pattern for the interior arrangement of the com-

mand post of a terminal battalion, but centralized functional control has proven successful. This calls for an operations center, an administration and personnel center, and a supply and maintenance center.

- (1) *Operations center.* Operations are planned, coordinated, supervised, and controlled from the operations center. It normally is located centrally with respect to the unit operating areas but may be located at operation sites removed from the rest of the battalion command post and the troop unit bivouac area. Organizationally, it is built around the operations section (fig. 3 and par. 15b) and the unit liaison representatives. With the operations center organized and located in this manner, the battalion commander and his operations officer can keep abreast of all aspects of the operating situation and communicate their operating instructions immediately to any unit or element of the battalion. Any unfavorable situation is thus alleviated before it attains serious proportions.
- (2) *Administration and personnel center.* The battalion administration and personnel center is located in the vicinity of the kitchen bivouac of the unit which feeds the personnel who operate the center. It is built organizationally around the administration and personnel section and the detachment headquarters (fig. 3 and par. 15a). Since it is physically separated from the operations center, it gives the battalion commander a place to conduct his administrative activities without these activities conflicting with the terminal operations.
- (3) *Supply and maintenance center.* The battalion supply and maintenance center is located normally in a dispersed area where it can most advantageously carry out the supply and maintenance activities within the entire battalion support area. It is built organizationally around the supply and maintenance sections (fig. 3 and pars. 15c and 15d).

b. The activities mentioned in *a* above may be sheltered in conveniently located buildings or under the tentage provided. Cover for all personnel should be prepared. Concealment may be important, depending upon the proximity and capabilities of the enemy. The message center (par. 15a) should be close to the avenue of approach where it can be easily reached by incoming personnel. A motor park should be established in a concealed location and so located that detection will not disclose other elements of the command post. Radio sets should be installed with consideration for their operating characteristics, the possibility of mutual interference, and the convenience of the users. When possible, radio equipment should be remotely con-

trolled with transmitting elements located outside the command post area.

22. Communications

Radio and telephone communication equipment is provided (TOE 55-116) to give battalion headquarters personnel a means of immediate communication with higher headquarters and with subordinate units of the battalion. This equipment includes limited-range radios, a telephone switchboard, field wire, and field telephone. The radios provide communication with higher headquarters and with subordinate units of the battalion. Field telephones are used primarily for intraheadquarters communication. The battalion operations officer, by obtaining extra field wire and utilizing the extra capacity of the switchboard, can establish telephone communication with subordinate units of the battalion where field telephones are included in the equipment tables of these units.

PART THREE

HEADQUARTERS AND HEADQUARTERS DETACHMENT, TRANSPORTATION TERMINAL BATTALION

CHAPTER 5

GENERAL

23. Mission

The mission of a headquarters and headquarters detachment, transportation terminal battalion (fig. 3), is to command and supervise assigned or attached transportation terminal service companies and other types of units required to fulfill a particular mission.

24. Assignment

The assignment of a headquarters and headquarters detachment, transportation terminal battalion, is the same as that described in paragraph 4 for the terminal battalion.

25. Concept of Employment

A headquarters and headquarters detachment, transportation terminal battalion, is employed to provide an intermediate level of command for flexible organization of up to four terminal units grouped to perform the terminal mission under various types (pars. 6 and 7) of operating conditions.

26. Capabilities

A headquarters and headquarters detachment, transportation terminal battalion, is designed to operate under the supervision of a higher headquarters to command and provide administrative supervision of up to four companies or company-size detachments. It can function as a terminal headquarters for terminal operations involved in discharging two ships at a planned rate of 1,440 short tons per day. For short periods of operation necessitated by urgent requirements, the normal assignment of four companies or company-size detachments may be exceeded. Because of the limited number of personnel in the headquarters and headquarters detachment, command and supervision cannot be exercised over more than four units without an excessive decrease in efficiency. In operations involving additional units, a terminal command (FM 55-51) should be employed.

27. Organization

a. A headquarters and headquarters detachment, transportation terminal battalion, is organized as follows (fig. 3) :

- (1) *Battalion headquarters.* The battalion headquarters consists of the officers and warrant officers assigned to the unit. These personnel were discussed in paragraphs 9 to 15.
- (2) *Headquarters detachment.* The headquarters detachment consists of the enlisted personnel of the unit grouped into a detachment headquarters, an administration and personnel section, an operations section, a supply section, and a maintenance section. These sections were discussed in chapter 4.

b. Further details on the duties of individual enlisted personnel are contained in paragraphs 28 to 32.

CHAPTER 6

DUTIES OF INDIVIDUAL ENLISTED PERSONNEL

28. Detachment Headquarters

The enlisted personnel in the detachment headquarters assist the adjutant in the duties described in paragraph 15a(1).

a. Detachment Supply Sergeant. This noncommissioned officer is responsible for the acquisition, storage, and issue of the individual and organizational equipment authorized the headquarters and headquarters detachment and the maintenance of the required supply records.

b. Detachment Cook. The detachment cook is attached to and augments the mess personnel of the unit which has been designated to provide messing facilities for the headquarters and headquarters detachment.

c. Personnel Administrative Clerk. The personnel administrative clerk maintains the administrative and personnel records of the headquarters and headquarters detachment and as additional duty is a light truck driver.

d. Wheeled-Vehicle Mechanic. The wheeled-vehicle mechanic working under the supervision of the battalion maintenance officer is responsible for the organizational maintenance of the headquarters and headquarters detachment vehicles.

e. Light Truck Driver. The primary duty of the light truck driver is to drive a stake and platform truck. He may be required to perform other duties such as runner, messenger, or orderly around the battalion headquarters when not required as a truck driver.

29. Administration and Personnel Section

The enlisted personnel in the administration and personnel section assist the adjutant in his duties as described in paragraph 15a(2).

a. Battalion Sergeant Major. The battalion sergeant major is the office manager of the adjutant's office. Normally he acts as the first sergeant of the headquarters detachment. He maintains the unit journal and directs the routing and filing of correspondence, messages, and official mail.

b. Battalion Personnel Group. The battalion personnel group work directly under the supervision of the military personnel warrant officer.

- (1) The personnel sergeant is the immediate assistant to the military personnel warrant officer. He assists in the supervision of the military personnel office and performs personnel management duties.
- (2) The personnel administrative supervisor supervises the preparation and maintenance of personnel records for officers and enlisted personnel and prepares or supervises preparation of a variety of administrative reports, rosters, and correspondence based upon personnel records.
- (3) The personnel management specialist administers and scores prescribed tests, prepares and maintains qualification and other personnel records, and performs other normal personnel management duties.

c. Battalion Chaplain's Assistant. This enlisted man serves as typist and file clerk for the chaplain and may assist him in conducting religious services.

d. Clerk-Typists. The clerk-typists work directly under the battalion sergeant major, typing and filing reports and records.

e. Mail Delivery Clerk. The mail delivery clerk handles all the mail for the battalion headquarters and headquarters detachment and for the assigned or attached units. He also drives a light truck. He receives incoming mail from and delivers outgoing mail to the post office for the entire battalion. He sorts the mail received into unit bundles and delivers it to the unit mail clerks.

f. Secretary-Stenographer. The secretary-stenographer works for the battalion commander. He also is available to record oral reports and proceedings of courts, boards, conferences, and hearings.

g. Light Truck Driver. The light truck driver drives the ¼-ton, 4 x 4 truck, which serves as a dispatch or messenger vehicle. Driver and vehicle are available to transport the battalion commander.

30. Operations Section

The enlisted personnel in the operations section assist the operations officer in his duties as described in paragraph 15*b*.

a. Operations Sergeant. The operations sergeant is the office manager and chief enlisted assistant of the operations officer. He assists in the planning and the coordination of terminal operations. He is an expert stevedore and understands the use of heavy lift equipment and other special gear. He understands the preparation and use of stowage plans and manifests and the documentation used to control loading, unloading, and movement of cargo.

b. Assistant Operations Sergeant. The assistant operations sergeant is the immediate assistant of the operations sergeant and takes

over many of the specific duties of the operations sergeant, freeing the latter to manage the office.

c. Operations Section Clerks. The operations section clerks handle the operations reports, files, and documentation. The operations clerk assists in the preparation of operational orders and reports. The documentation clerk processes the documentation reports and serves as a light truck driver for one of the assigned 1/4-ton, 4 x 4 cargo trucks. The clerk-typist assists in the typing for this office. The other enlisted men are file clerks and can assist with the typing.

d. Switchboard Operator. The switchboard operator operates and performs preventive maintenance on the manually operated switchboard provided the section.

e. Troop Information and Education Specialist. This enlisted man assists in the troop information and education duties of the assistant S3, relieving that officer of many of the details of the task of coordinating and supervising the activities of the troop information and education specialists in subordinate units.

f. Light Truck Driver. This enlisted man drives the 1/4-ton, 4 x 4 cargo truck in which the operations officer travels to supervise operations.

g. Wiremen. The enlisted wiremen in the section string wire for the telephones within the command post and to the subordinate units. These enlisted men are qualified to operate the 1/4-ton, 4 x 4 cargo truck. They provide manpower for the 24-hour operation of the switchboard.

31. Supply Section

The enlisted personnel in the supply section are directly supervised by the supply warrant officer. They assist the supply officer in the duties described in paragraph 15c.

a. Battalion Supply Sergeant and Assistant Supply Sergeant. These enlisted men receive and consolidate unit supply requisitions. They check these requisitions against the authorization shown in tables of organization and equipment, tables of allowances, and special authorizations; verify stock numbers and nomenclature; draw supplies from authorized sources; and issue these supplies to subordinate units.

b. Supply Clerks. The supply clerks assist in the duties prescribed in *a* above. In addition, they establish and post current stock record files, edit requisitions, and perform related duties in the supply section. One of the supply clerks is qualified to drive the light truck assigned to the section.

32. Maintenance Section

The enlisted personnel in the maintenance section assist the maintenance officer in his duties as described in paragraph 15*d*.

a. Cargo Gear Equipment Foreman. This enlisted man assists the maintenance officer in supervising the maintenance performed on cargo gear by the units assigned or attached to the battalion.

b. Engineer Equipment Maintenance Inspector. This enlisted man inspects and supervises the unit maintenance of authorized engineer equipment.

c. Clerk-Typist. The clerk-typist files, types, and helps prepare reports. He drives the light truck assigned to the section.

d. Radio Mechanic. The radio mechanic repairs and maintains the radios within the battalion headquarters and attached units. He forwards all equipment requiring repairs beyond his capability to the proper signal repair shop.

CHAPTER 7

EQUIPMENT

33. General

Section I of TOE 55-116 cites general rules for the issue of individual and organizational equipment to the headquarters and headquarters detachment, transportation terminal battalion. Section III of TOE 55-116 is an itemized list of the minimum essential quantities and types of organizational equipment necessary to accomplish the mission of the unit.

34. Important Items of Equipment

Important items of equipment of the headquarters and headquarters detachment, transportation terminal battalion, include—

a. Engineer.

- (1) Drafting equipment.
- (2) Electric lighting equipment.
- (3) Reproduction equipment, gelatin process.

b. Ordnance.

- (1) Small arms.
- (2) Assorted vehicular equipment.

c. Quartermaster.

- (1) Portable computing machine.
- (2) Stencil duplicating machine.

d. Signal.

- (1) Radio sets.
- (2) Switchboard and telephones.

PART FOUR

TERMINAL SERVICE COMPANY

CHAPTER 8

GENERAL

35. Mission

The mission of the terminal service company is to load cargo on vessels, discharge cargo from vessels and clear it from shipside, transfer cargo from one mode of transport to another, and prepare the necessary documentation to account for and record the movement of this cargo.

36. Assignment

The normal assignment of the terminal service company is to the terminal battalion (par. 4 and figs. 2 and 9). It may be assigned directly to a terminal command when the size of the operation is too small for employment of battalion-size units, or it may operate directly under the supervision of the appropriate staff transportation officer when engaged in operations such as those at a cargo transfer point or at an isolated water terminal.

37. Concept of Employment

a. General. The terminal service company is designed to operate under varying situations and conditions.

b. Operating Under Terminal Battalion. When employed under the control of a terminal battalion, a terminal service company may operate separately or its operations may be integrated with those of one or more other terminal service companies supervised by the same battalion. Whether or not a company functions separately is determined primarily by the distance and the type of terrain between company areas. When time, space, and tactical factors permit, it is generally more economical for a terminal battalion to operate centralized equipment pools, maintenance shops, and documentation centers. Under such circumstances, the battalion controls the equipment, the maintenance personnel, and the documentation clerks of the companies. This relieves the company commander of all functions except the handling of cargo; that is, discharging from ship to wharf or beach and loading the cargo

aboard clearance transport or moving it to a segregation or temporary storage area. Conversely, when operating separately, a company must analyze proposed operations against equipment available and notify the terminal battalion (or next higher headquarters) of any additional support needed. It must also perform all documentation needed to forward the cargo to its initial destination.

c. Operating One-Ship Terminal. It is unlikely that a terminal service company will operate a one-ship terminal unless adequate fixed facilities are available which make it possible for the terminal service company to discharge from a ship directly to clearance transport. Operations over a beach involving ship-to-shore lighterage and beach clearance normally require a terminal battalion for adequate supervision and control. When a terminal service company operates a one-ship terminal, it does so under the supervision of the appropriate staff transportation officer or terminal command. The staff transportation officer or the terminal command is responsible for providing clearance and lighterage support and such services as area defense, utilities, finance, courts and boards, quartermaster, medical, and ordnance. The terminal service company is responsible for loading or discharging the cargo, placing it aboard clearance conveyances, and documenting it, and, when necessary, for segregation and/or temporary storage. Normally, the five hatch sections of the ship platoons are engaged in discharge operations, and the shore platoons load and document the cargo aboard clearance conveyances, or move the cargo away from shipside to a sorting or temporary storage area. Highway clearance conveyances will be provided on a mission basis by the next higher headquarters supervising the operation. If rail clearance conveyances are used, authority usually will be given the terminal service company to request cars directly from the transportation railway service unit serving that area. As in all discharge operations, the request for clearance conveyances is based upon the cargo disposition instructions (par. 74) which furnish the movement control information necessary to forward the cargo to its initial destination.

d. As Part of Engineer Amphibious Support Command. The engineer amphibious support command is a specialized unit designed to provide combat and logistical support for Army landing forces in the early phases of an amphibious operation. The basic shore party structure provides only the nucleus of the required unit. To enable it to perform its mission, this nucleus must be augmented by the attachment of appropriate terminal units and other service units. To insure continuity of effort, the attached terminal units should be a part of the terminal battalions and/or

the terminal command scheduled to relieve the engineer amphibious support command in the beach area. Terminal service companies from the relieving organizations are attached to the engineer amphibious support command early enough to perform the loading mission in the mounting area and then accompany the assault shipping to the beachhead to perform the discharge operation. In this type of operation, the terminal service companies, split into many small independently working elements, are normally under the control and supervision of a transportation terminal battalion, which is a part of the shore party. One of the first requirements of the terminal service company and terminal battalion commanders as the operation progresses is to reassemble these many small working elements into their company organization.

e. At Inland Terminal and/or Transfer Point. When operations at an inland terminal and/or transfer point are not large enough for the employment of a terminal battalion (par. 6b), the terminal service company, operating as a separate unit under the supervision of the staff transportation officer of the communications zone or the appropriate area command, is capable of operating the installation.

f. At Segregation and/or Temporary Storage Area. To prevent congestion on the wharf, or at the waterline of a beach, cargo which cannot be loaded directly to clearance conveyances is transported by organizational equipment of the terminal service company to a segregation and/or temporary storage area located immediately behind a terminal. In large ports where cargo placed in segregation and/or temporary storage areas may amount to considerable tonnage, additional labor may be required. These segregation and/or temporary storage areas then in fact become transfer points, and a transportation terminal service company may be assigned to operate such an installation.

38. Capabilities

For planning purposes and when adequate clearance transport is provided, the capability of a transportation terminal service company is as follows:

a. At Wharf or in Logistical Over-the-Shore Operation.

- (1) *Discharge.* The company can discharge 720 short tons of general cargo daily from one 5-hatch ship; load the cargo in a mode of conveyance for terminal clearance, provided the loading is performed on the wharf in a port operation or at the waterline in a beach operation; and accomplish the necessary documentation to record the receipt and movement of this cargo.

- (2) *Loading.* The company can load and stow 500 short tons aboard a vessel at a wharf or at anchor off a port or beach and at the same time prepare the necessary documentation.

b. At Inland Terminal and/or Transfer Point. The company can handle 720 short tons of cargo daily and at the same time prepare the necessary documentation. See paragraph 6b for information on how to obtain additional equipment which may be required in this type of operation.

c. At Segregation and/or Temporary Storage Area. The company in this operation has the same capability as that described in b above.

d. In Amphibious Operation When Attached to Engineer Amphibious Support Command.

- (1) The characteristics of the holds and gear of the attack transport, personnel (APA), and the attack transport, cargo (AKA), often complicate the handling of cargo. The cargo is loaded so that it can be discharged in the order required by the tactical operation. This stowage is costly in wasted shipping space and in time lost switching from light to heavy lifting gear.
- (2) For planning purposes when conditions are ideal, optimum performance figures are: 24 hours to combat load an APA with 600 short tons of cargo and personnel and 72 hours to combat load an AKA with 1,500 short tons of cargo. An additional 2 to 3 days should be allowed for loading out a transport division consisting of four APA's and one AKA because the weather, breakdowns, refueling, and other contingencies may prevent the ships from coming to berth or leaving berth at the scheduled time. Also, last-minute changes in tactical plans may upset the planned arrival of cargo and personnel.
- (3) In the objective area under ideal conditions (again for planning purposes), an optimum figure for unloading an APA is 10 hours and for unloading an AKA 30 hours. However, enemy action, shortage of landing craft, and changes in the tactical situation will upset unloading schedules so that the average time to unload an APA may be from 2 to 3 days and to unload an AKA from 3 to 5 days.

e. Reduced Strength Company. A reduced strength transportation terminal service company works only one shift; therefore, the capability discussed in a, b, and c above should be reduced by one-half.

f. Documentation. The documentation mentioned in *a* and *b* above consists of the preparation of all transportation documents and the maintenance of a complete record of cargo handled, the reconciliation of discharge tonnages with the manifest in order to prepare the cargo outturn report, and the preparation of stowage plans and hatch lists for cargo loaded. Documents and documentation are covered in detail in appendixes II and III.

39. Organization and Functions of Components

A transportation terminal service company is organized with the following components (fig. 4), the functions of which are outlined below:

a. Company Headquarters. The functions of the company headquarters include command, administration, mess, and supply (par. 40). The company commander is a qualified stevedore officer, capable of supervising any cargo transfer operation. See AR 220-70 and the sample SOP in appendix III for a description of his duties. In a separate operation the company may have other units attached and the company commander may be designated the terminal commander. As terminal commander, he will be responsible for maintaining liaison with the other services as well as with the Military Sea Transportation Service (MSTS).

b. Stevedore Gear and Equipment Maintenance Section. The functions of the stevedore gear and equipment maintenance section commanded by a maintenance and repair warrant officer include the storing, accounting for, and organizational maintenance of materials handling equipment, engineer equipment, vehicles, and cargo handling gear. See paragraph 41 for duties of personnel.

c. Ship Platoon (2).

(1) *Platoon headquarters.* The function of the platoon headquarters is to provide the command element of the platoon. The platoon leader, assisted by the platoon sergeant, is responsible for the unloading or loading operation. Both men are qualified stevedores. See paragraph 42 for duties of personnel.

(2) *Five hatch sections.* The five hatch sections are capable of working one 12-hour shift and performing all functions necessary to discharge or load a standard 5-hatch ship. In discharge, these functions consist of breaking out the cargo from the hold; landing it on the wharf, in craft, or in clearance conveyances; and recording cargo so moved. In loading, these functions consist of receiving the cargo at shipside, lifting it into and stowing it away in the hold, and recording the stowage of the cargo.

- (3) *General.* In a cargo transfer operation, the ship platoon is assigned either to load or unload as desired by the company commander.

d. *Shore Platoon (2).*

- (1) *Platoon headquarters.* The function of the platoon headquarters is to provide the command element of the platoon. The platoon leader, assisted by the platoon sergeant, is responsible for the documentation and clearance operations of his platoon. Both men are qualified stevedores. See paragraph 43 for duties of personnel.
- (2) *Documentation section.* The documentation section is capable of working one 12-hour shift and maintains a complete documentation of cargo handled. All cargo unloaded must be checked against the manifest or waybill to insure that the entire consignment has been received. A complete record is kept of cargo put in or taken out of the segregation and/or temporary storage area (if any). Appropriate shipping papers are prepared for all cargo which is outloaded. All the required cargo statistics, including outturn data, are kept by the personnel of this section, who use this material to prepare certain cargo operational reports for forwarding to the next higher headquarters.
- (3) *Cargo handling section.* This section is capable of working one 12-hour shift. It clears cargo from shipside to prevent congestion on the wharf by picking up cargo where it is landed from the ship's hook and loading it on clearance conveyances. In a beach operation it unloads the cargo from an amphibious truck, a landing craft, or a barge and loads it into clearance conveyances. Clearance conveyances may be either rail or truck. If cargo cannot be cleared immediately, it is transported by organizational equipment to a segregation and/or temporary storage area. The cargo handling section is capable of loading to clearance conveyances and/or of the movement and unloading in the segregation and/or temporary storage area, but it does not have sufficient personnel to also operate this area.

CHAPTER 9

DUTIES OF INDIVIDUAL PERSONNEL

40. Company Headquarters

The personnel of the company headquarters assist the company commander with the administrative and housekeeping functions necessary for the support of the company. The housekeeping functions include supply, informal accountability, and maintenance of organic equipment; supervision of company operations (SOP, app. III) and personnel; provision of messing and housing arrangements; and the necessary support for company operations. Because 50 percent of the unit works at night, sufficient mess personnel are provided to operate the mess 24 hours a day. Terminal service companies may be used at several different operational sites. Therefore, frequent moves of the company and its equipment may be necessary. Current movement tables (app. IV) showing requirements for all types of packing and crating and the necessary conveyances for one of these moves must be maintained. The enlisted men of the company headquarters are as follows:

a. First Sergeant. The first sergeant is the senior enlisted man in the company. He is an immediate enlisted assistant to the company commander and, under his supervision, manages the company administration. Preferably he should be a qualified stevedore who understands the duties and problems of the personnel of the company.

b. Mess Steward and Mess Personnel. The company mess steward, under the supervision of the company commander and the first sergeant, supervises the other mess personnel in operating the company mess. He is responsible for obtaining subsistence supplies from the battalion breakdown point and for the preservation and preparation of these supplies for the meals of the company. He is also responsible for the cleanliness and sanitation of the company mess equipment and the company mess area. He maintains the company mess records and menus (TM 10-402). He is assisted by the cooks and the cook's helper. The cook's helper is qualified to drive a light truck which may be used by the mess personnel to pick up rations or when it is necessary to take hot meals to the job site for working personnel.

c. Company Supply Sergeant and Assistants. The company supply sergeant, under the supervision of the company commander and

the first sergeant, is responsible for the supply operations and the preparation of movement tables (app. IV) for the company. He prepares requisitions, draws equipment, maintains the property accountability records, and prepares equipment to turn in for salvage or repair. He is assisted by the company armorer, the supply clerk, and the light truck drivers. The armorer also drives a 5-ton truck. One of the light truck drivers drives another of the 5-ton trucks. These vehicles are used to transport tools, equipment, supplies, rations, and personnel and for other administrative purposes. Another light truck driver is the operator of the dump truck used to remove dunnage and debris from the port area. The supply clerk drives a light truck used in company administrative duties.

d. Company Clerk. The company clerk is an assistant to the first sergeant. He types, maintains the administrative records and reports, and keeps the files in the company administrative office. In addition, he operates the company headquarters radios and telephones.

e. Company Personnel Clerk. The company personnel clerk maintains the personnel records and makes the necessary personnel reports for the commissioned, warrant and enlisted personnel. He may work in the company headquarters or at the battalion administration and personnel center. See paragraph 15a(2) for details of the administration and personnel center.

41. Stevedore Gear and Equipment Maintenance Section

Personnel of the stevedore gear and equipment maintenance section assist the maintenance and repair warrant officer with the functions (par. 39b) of the section. The section is organized for 24-hour operation in support of the ship and shore platoons. Duties of the personnel are as follows:

a. Cargo Gear and Equipment Foreman. The cargo gear and equipment foreman assists the maintenance and repair officer in storing and in accounting for and supervising the organizational maintenance and repair of the cargo handling gear and equipment. He also acts as the company motor sergeant and is responsible for dispatching, organizational maintenance, and supervision of the operation of unit vehicles and materials handling equipment. See paragraph 44 for details of this equipment.

b. Transportation Supply Specialist. The transportation supply specialist assists in the duties of requisitioning, receiving, storing, issuing, and accounting for the cargo handling gear and equipment.

c. Riggers, Welders, Blacksmiths, and Packing and Crating Specialists. Riggers, welders, blacksmiths, and packing and crating specialists (carpenters) are assigned to repair and maintain gear;

to fabricate new gear when required; and to perform such additional duties as unlash, unblock, rehook, and burn off deck mountings.

d. Engineer Equipment Mechanics. The engineer equipment mechanics assist in the organizational maintenance of general engineer items of equipment and engineer materials handling equipment.

e. Wheeled-Vehicle Mechanics. The wheeled-vehicle mechanics assist in the organizational maintenance of wheeled vehicles of the company.

f. General Equipment Repairmen. The general equipment repairmen assist in the organizational maintenance of the quartermaster items of materials handling equipment.

42. Ship Platoon

The personnel of each ship platoon assist their platoon leader with his responsibilities (SOP, app. III). Complete details of stevedoring operations are contained in FM 55-110. The duties of the personnel in each hatch section are as follows:

a. Hatch Foreman. The hatch foreman is responsible for the loading or unloading of the hatch assigned to him. He must know the jobs of all men in the section, understand cargo discharge and loading operations, recognize unsafe working conditions and prescribe methods of correction, and know the principles of stowage and securing of cargo. Usually he takes station on deck where he can observe the operations of his entire hatch section. The hatch foreman selects and obtains the proper type of cargo gear and equipment and assigns the personnel of his section to their posts for the loading or unloading operation. He supervises the positioning and rigging of booms, save-alls, and cargo nets and observes and enforces safety regulations.

b. Assistant Hatch Foreman. The assistant hatch foreman, who must have the same knowledge as the hatch foreman, personally directs and supervises the longshoremen working in the hold. He directs the stowing, bracing, and lashing or the breakout of cargo. He observes and enforces safety regulations.

c. Cargo Checkers. The cargo checkers maintain complete records of all cargo loaded or discharged. One works in the hold where he checks cargo as it is loaded onto the ship or unloaded from it. The other works on shore where he checks cargo landed on wharf or beach or in clearance conveyances and cargo received in the terminal area for loading. In the unloading operation the document used by the cargo checker is DA Form 1664 (Cargo Delivery Receipt) (app. II). In the loading operation the docu-

ment used by the cargo checkers is DA Form 1663 (Dock Receipt Nonnegotiable) (app. II). See sample SOP (app. III) for details and procedure with respect to this documentation.

d. Signalman. The signalman signals to the winch operators to insure proper and safe removal of cargo to and from the hold. He must know the standard winch signals, know how to sling a draft (because it is his job to observe each draft of cargo for safety as it is moved), and be familiar with safety regulations. On most ships the winch operators are not in a position to look into the hold, observe the wharf, and operate the winch at the same time. The signalman by moving about the deck to observe operations in the hold and on the wharf is able to control the actions of the winch operators. The signalman will assist the winch operators in rewinding the winches.

e. Winch Operators. Winch operators must know the standard winch signals, know how to operate all kinds of winches, and understand hold and wharf operations. They must know how to pick up heavy lifts, how to drag cases and vehicles under deck, and how to rig the booms for any job. Generally, one man operating both winches at a hatch can perform with greater efficiency, speed, and safety than can two men. However, some ships are so constructed and some winches are so designed that a winch operator is required for each winch. For this reason, winchmen must be carefully trained and teamed so that each man is familiar with his partner's habits and reactions.

f. Longshoremen. Longshoremen must know the procedures for handling cargo the safest and fastest way. All except two of the longshoremen in the hatch section work in the hold where they form two crews, each working one side of the vessel. In discharge operations they break out the cargo and load the draft. In the loading operation they unload the draft and stow the cargo. The two longshoremen who do not work in the hold, work at shipside on the wharf or barge, or they may work at the waterline, assisting the shore platoon when the operation involves the use of landing craft and their services are not required at shipside. In discharge operations they release the sling or draft from the ship's tackle; in loading operations they attach the sling or draft to the ship's tackle.

43. Shore Platoon

The personnel of the shore platoon assist the platoon leader with his responsibilities. For details of these responsibilities, see sample SOP, appendix III.

a. Documentation Section. Although the documentation section is comprised of documentation clerks, manifest clerks, and cargo

accounting clerks, it has been found expedient in actual operations to organize the section under the documentation control supervisor as shown in the sample SOP, appendix III.

b. Cargo Handling Section. The personnel of the cargo handling section operate the materials handling equipment and load or unload cargo as required.

- (1) *Cargo gear and equipment foreman.* The cargo gear and equipment foreman is the section leader and is responsible for the operations of the section.
- (2) *Materials handling equipment operators.* The materials handling equipment operators operate the materials handling equipment (par. 44) used in shoreside operations. When cargo is moved directly between the ship and another conveyance, these personnel are available for duty in the segregation and/or temporary storage area.
- (3) *Longshoremen.* The longshoremen, under the command of a longshoreman foreman, move cargo to and from the ship's tackle at shipside. They perform the cargo-handling duties (loading and stowing or unloading) in the transportation conveyance which clears cargo from, or brings it to, the terminal. They also assist in handling and storing the cargo moved within the terminal area by the materials handling equipment. They must be thoroughly trained to gain the maximum efficient utilization of the capabilities of each type of conveyance. They must be familiar with the maximum load and cargo stowage restrictions of each conveyance and with the proper blocking, bracing, and lashing procedures.

CHAPTER 10

EQUIPMENT

44. General

Section I of TOE 55-117 cites the general authority for the issue of individual and organizational equipment to the transportation terminal service company. Section III of TOE 55-117 is an itemized list of the minimum essential quantities and types of organizational equipment necessary to accomplish the mission of the unit. Major type items of equipment include the following:

a. Engineer Type Materials Handling Equipment.

- (1) Highly mobile 20-ton truck-mounted cranes, 10-ton crawler cranes, and a 40-ton crawler crane transfer cargo from landing craft, barges, and amphibious vehicles to trucks and rail cars.
- (2) A crawler tractor (fig. 15) can be used to prepare the beach and working area or to supply motive power to move stalled or inoperative vehicles, or it may be used as a hoistaway crane when the revolving crane has been authorized by proper authority. For details, see TOE 55-117.

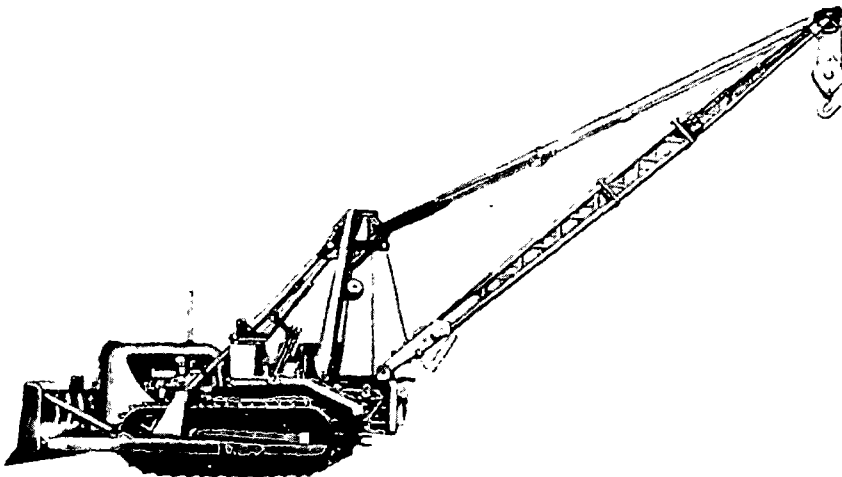


Figure 15. Crawler tractor with revolving crane.

b. General Engineer Type Items.

- (1) A skid-mounted 15-kilowatt generator set is used for lighting purposes.
- (2) A trailer-mounted lubricator is provided for the lubrication of equipment listed in *a* above.

c. Ordnance Type Items.

- (1) Individual arms (rifles, pistols, and carbines) are provided.
- (2) Various types of motor vehicles are used for company administrative and operational missions.
- (3) Various types of trailers and dollies are furnished for mess, maintenance, and terminal operations.

d. Quartermaster Type Materials Handling Equipment. Gravity roller conveyors and various types of forklift trucks constitute the materials handling equipment.

e. Transportation Type Cargo Handling Gear. Transportation type cargo handling gear in gearboxes is drawn by the hatch section foreman and used in loading and unloading operations.

45. Communications

The terminal service company is equipped with radios and field telephones.

a. Limited-Range Portable Radio Sets. Limited-range portable radio sets are provided for intracompany communication. One radio is at company headquarters and one each is available for the ship platoon and the shore platoon on shift.

b. Limited-Range Vehicular-Mounted Radio Set. A limited-range vehicular-mounted radio set is furnished for communication with higher headquarters. This radio is normally mounted in the company commander's vehicle.

c. Field Telephones. Field telephones are authorized for intracompany wire communications.

- (1) A phone at company headquarters is generally tied into the battalion wire net.
- (2) In addition to radio communication, telephone communication from ship to shore may be established by laying spiral-four cable (CX-1065/G) with 500-pound tensile strength from the company (shore platoon) headquarters to the ship. The line to company (shore platoon) headquarters must be "overheaded" as soon as it reaches the beach so as not to interfere with operations on the beach. From the anchor buoy of the ship to the shoreline, the

line can be laid by two linemen operating from an amphibious truck. The line should lie on the ocean floor and be held down with weights fashioned from 12-ounce cans filled with cement and attached to the line every 50 yards. Attachment is accomplished with hangers made of steel alloy wire embedded in the cement. Sufficient slack is allowed in the wire reaching from the anchor buoy to a position aboard ship to prevent rupture as the ship swings at anchor. The line should be run up the anchor chain from the buoy to its position aboard. This telephone communication is not susceptible to electronic jamming and should serve as the primary means of communication between terminal service company personnel on ship and on shore. Radio communication may be used to augment the telephone.

CHAPTER 11

TYPE B TERMINAL SERVICE COMPANY

46. General

A type B terminal service company is provided for in column 10, section II, TOE 55-117. This column adapts this TOE to a requirement for fewer United States military personnel, who supervise non-United States personnel. It provides generally for the operation of hatch gangs manned almost entirely by labor provided from non-United States sources. Other positions in the type B TOE are also filled by non-United States personnel. The number of such personnel to be provided must be determined by the major commander to whom the unit is assigned and will depend upon the production capacity of available personnel, the number of shifts, and local conditions. Interpreters and translators will be provided by higher headquarters. Should it be necessary to issue arms and/or individual equipment to these personnel, authorization must be obtained through command channels from the theater army commander or the Headquarters, Department of the Army. Mission type items of equipment are issued to type B units in the same quantity as to the regular terminal service company.

47. Mission and Assignment

The mission and assignment of the type B terminal service company are the same as those of the regular terminal service company (pars. 35 and 36).

48. Concept of Employment and Capabilities

The concept of employment and the capabilities of the type B terminal service company are generally the same as those of the full strength military company (pars. 37 and 38), provided sufficient qualified nonmilitary personnel are assigned.

49. Organization and Functions of Components

The organization and the functions of the components of the type B terminal service company are the same as those of the full strength military company (par. 39).

50. Positions To Be Filled With Nonmilitary Personnel

In the type B terminal service company, positions which may be filled by non-United States personnel are as follows:

a. In the company headquarters the armorer, the company clerk, the supply clerk, cooks and cook's helper, and light truck drivers.

b. In the stevedore gear and equipment maintenance section, blacksmith, packing and crating specialists (carpenters), rigger and helper, welder, general equipment repair helper, and mechanic's helper.

c. In the ship platoon, the assistant hatch foreman for each hatch gang, the assistant cargo checker in each hatch gang, one winchman in each hatch gang, and all longshoremen in each hatch gang.

d. In the shore platoon, tractor operators, heavy vehicle drivers, forklift operators, all longshoremen, all assistant documentation clerks, all assistant cargo accounting clerks, and all assistant manifest clerks.

PART FIVE

TERMINAL OPERATIONS

CHAPTER 12

UNITS EMPLOYED IN TERMINAL OPERATIONS

51. General

For the information of the terminal battalion commander, his staff, and the terminal service company commander, a brief synopsis of the mission and capabilities of the units which may be assigned or attached (pars. 6 and 7) to the terminal battalion is given in this chapter. For the TOE designation and the organization of all units except the service organization (TOE 55-500), see figures 5, 6, 7, 8, 9, 11, 12, and 13. Additional and specific capabilities of these units are available in the TOE cited in these illustrations and in the 55-series of field manuals. The TOE reference gives only the basic number; suffixes are not given because they frequently change.

52. Transportation Amphibious Truck Company, Army or Communications Zone

This unit (fig. 5) is organized to move cargo and personnel between ship and shore or from shore to shore. It is capable of operating two 10-hour shifts per day. Normally, provided the company is hauling optimum cargo over reasonable water and land distances, it has a daily planned capability of supporting one terminal service company.

53. Transportation Heavy Boat Company

This unit (fig. 6) is designed to augment lighterage service during the resupply phases of amphibious landings or to provide ship-to-shore or shore-to-shore lighterage of heavy cargo and personnel in logistical operations. With its mission type equipment, the landing craft, utility (LCU) (fig. 16), the company is capable of lighterage heavy and/or bulky items which are not suitable for lighterage by transportation boat companies or transportation amphibious truck companies, such as large vehicles, tanks, and troops with their individual equipment.



Figure 16. Landing craft, utility (LCU).

54. Transportation Boat Company

This unit (fig. 7) furnishes and operates landing craft in both logistical and amphibious operations. Its mission type equipment, the landing craft, mechanized (LCM), which may be swung from the davits or deck-loaded and launched by ship's gear, is normally the principal lighterage available in the assault stages of the amphibious operation. It is capable of carrying artillery pieces, wheeled and tracked vehicles, general cargo, and personnel with combat equipment.

55. Transportation Aerial Tramway Company

This unit (fig. 8) is capable of providing transportation for the movement of cargo and personnel from ship to shore, shore to ship, shore to shore, and overland. The mission equipment of the unit, the aerial tramway (fig. 17), is discussed further in paragraph 65.

56. Transportation Light Truck Company, Army or Communications Zone

This unit (fig. 10) provides transportation for the movement of personnel and cargo by motor vehicle and is capable of operating on poor roadways or across country if necessary. When augmented with personnel to provide two drivers per vehicle for 24-hour operation, the unit is normally capable of supporting one terminal service company in providing terminal clearance transportation for general cargo if the hauling is to local dumps and/or depots.

57. Transportation Medium Truck Company

This unit (fig. 11) is equipped with 12-ton semitrailers of an open or closed type for hauling general cargo and, in an emergency, personnel; refrigerated vans for hauling refrigerated cargo; 5-ton cargo trucks; or tankers for hauling bulk petroleum. The equipment is not mixed, being either cargo, refrigerated, or tanker. The company must be augmented to provide two drivers per tractor for 24-hour operation. Because of the size of these tractors and semitrailers, they are normally road haul vehicles with little or no cross-country ability.

58. Transportation Heavy Truck Company

This unit (fig. 12) is equipped with 12-ton truck tractors and 45-ton transporter semitrailers. The mission of the unit is to provide truck transportation for the movement of tanks and other heavy or bulky vehicles and to transport heavy, bulky, or outsized cargo. The unit's capability includes the returning of inoperative wheeled and tracked vehicles by haul-away or of operable wheeled

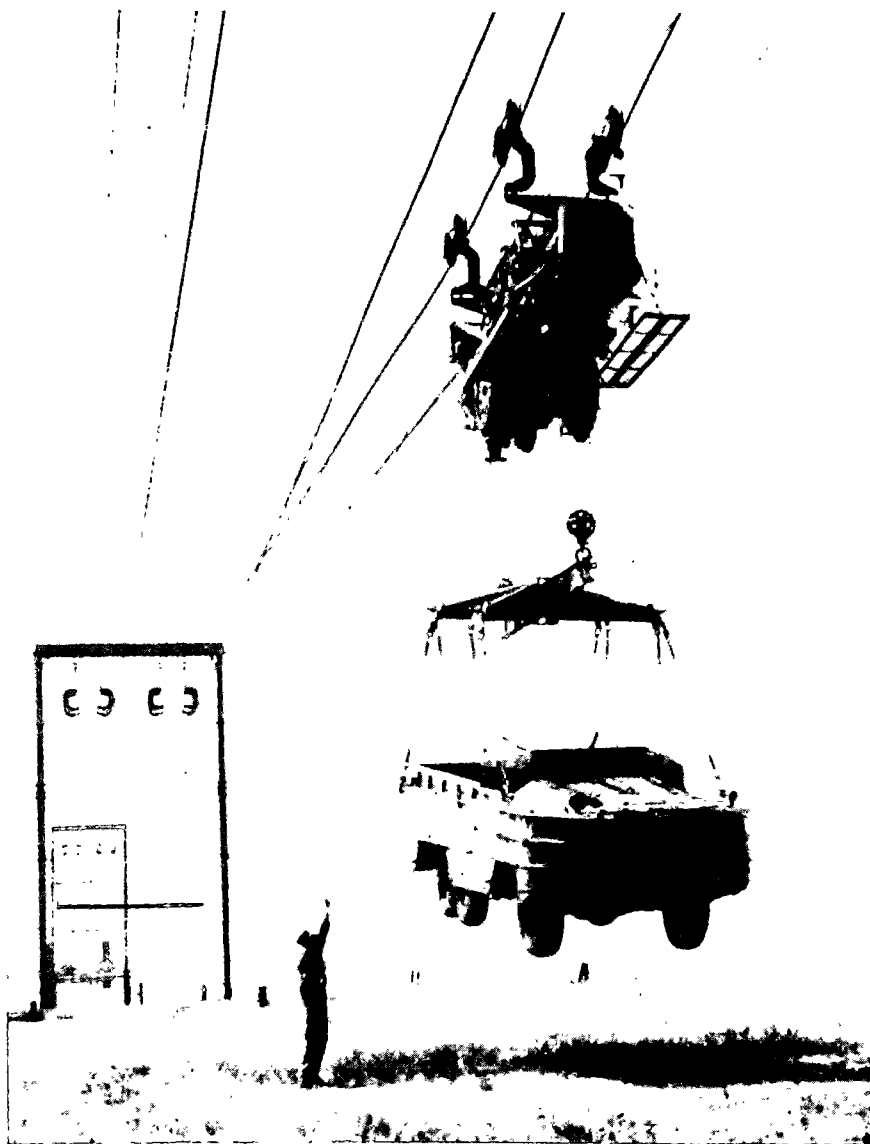


Figure 17. Aerial tramway.

vehicles by drive-away from forward areas to maintenance shops for repairs. TOE 55-28 provides for the company to be augmented with drive-away platoons.

59. Transportation Staging Area Company

This unit (fig. 13) provides limited messing and billeting facilities at terminals in theaters of operations and is capable of serving a maximum of 3,600 individuals per meal. The unit is not capable

of commanding a large staging area or of providing administrative service or logistical support for transient troops.

60. Transportation Service Organization

a. TOE 55–500 provides personnel and equipment to supplement TOE organization, act in lieu of regular TOE units, and perform miscellaneous functions.

b. Capabilities of the teams from this TOE vary according to their strength and mission. The principal teams include administrative and headquarters teams, supply teams, transportation railway service teams, floating craft maintenance teams, terminal service teams, aircraft teams, and movement control teams.

CHAPTER 13

SPECIAL EQUIPMENT

61. General

In addition to the equipment normally issued to terminal battalions and terminal service companies, special equipment designed to facilitate cargo operations may be needed. In most situations, organic equipment suffices; in others, operations might be interrupted if special equipment were not used.

62. Spud Type Barge

a. General.

- (1) Barges of the self-elevating spud type shown in figures 18 and 19 may be used to establish or rehabilitate wharf facilities in areas where the military requirement, time, or weather factors do not permit conventional construction procedures. Depending upon topographical conditions at the proposed erection site, these barges may be employed as—
 - (a) A sea island for an aerial tramway system (fig. 20).
 - (b) A single pier butted against the beach.
 - (c) Finger, marginal, T-head, or L-head piers consisting of a number of barges of appropriate sizes connected to the shore by earth fills, trestles, approach barges, Bailey bridges, or other appropriate means.
- (2) Piers built up from assembled units of this type can be erected with minimum time and labor. The equipment required for their erection can be loaded on board the barges and floated to the preselected site. The relative ease and rapidity with which these piers can be erected enhance their value in dispersed operations. Some of the principles, factors, and procedures considered in planning the opening of new beach sites (pars. 79 and 80) govern, in general, the selection of sites for the establishment of mobile pier facilities. In addition, the following factors must be considered:
 - (a) The site selected should, if possible, be on a lee shore protected from wind, weather, and sea.
 - (b) The water approaches to the pierhead site and the water alongside it should permit the free movement

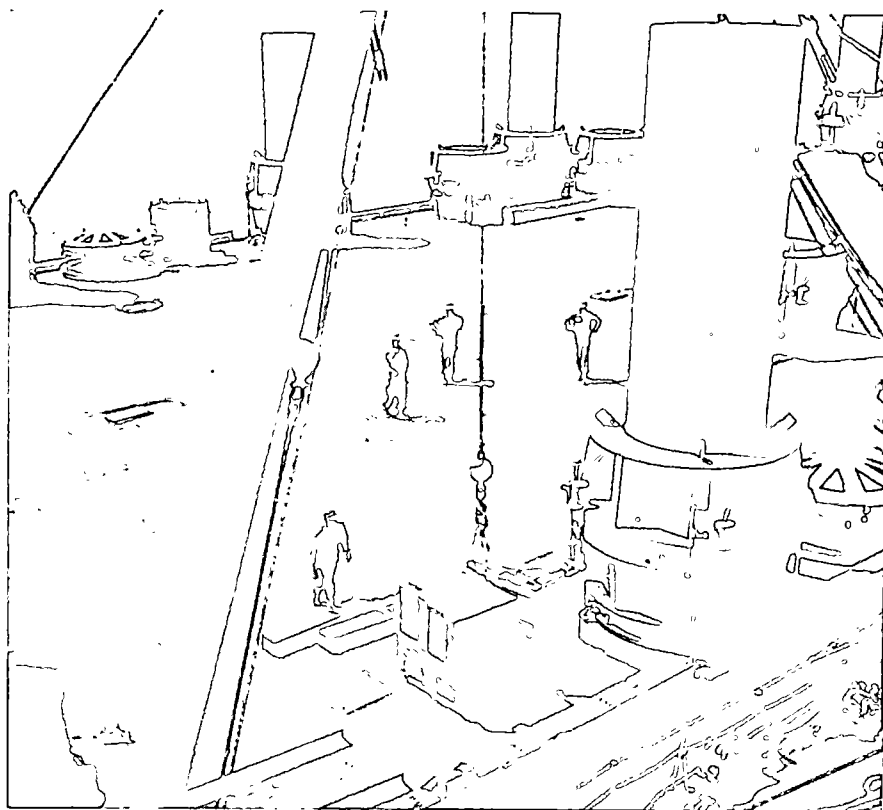


Figure 18. Spud barges being used as a temporary pier; spuds (caissons) have not been cut off, filled, and covered.

and berthing of deep-draft vesesls (normally 30 feet at mean low water).

- (c) The pierhead should be approximately 500 feet long to permit simultaneous discharge of all five hatches of a Victory type ship.

b. Typical Characteristics. The typical spud type barge is mobile, self-contained, and designed for integration with other units. It is approximately 250 feet long and 90 feet wide. These characteristics facilitate the establishment of a two-ship simultaneous discharge facility. The 90-foot width permits simultaneous two-way truck traffic and single-track rail operations. Vertical and lateral stability is insured by the vertical members or spuds (fig. 18). These spuds are normally 100 feet long, permitting adequate bottom penetration for stability and allowing optimum height. These factors allow employment in any but the most extreme tidal ranges. The normal depth of water for an alongside berth at mean low water should be 30 feet. A tidal range of less than 15 feet does not

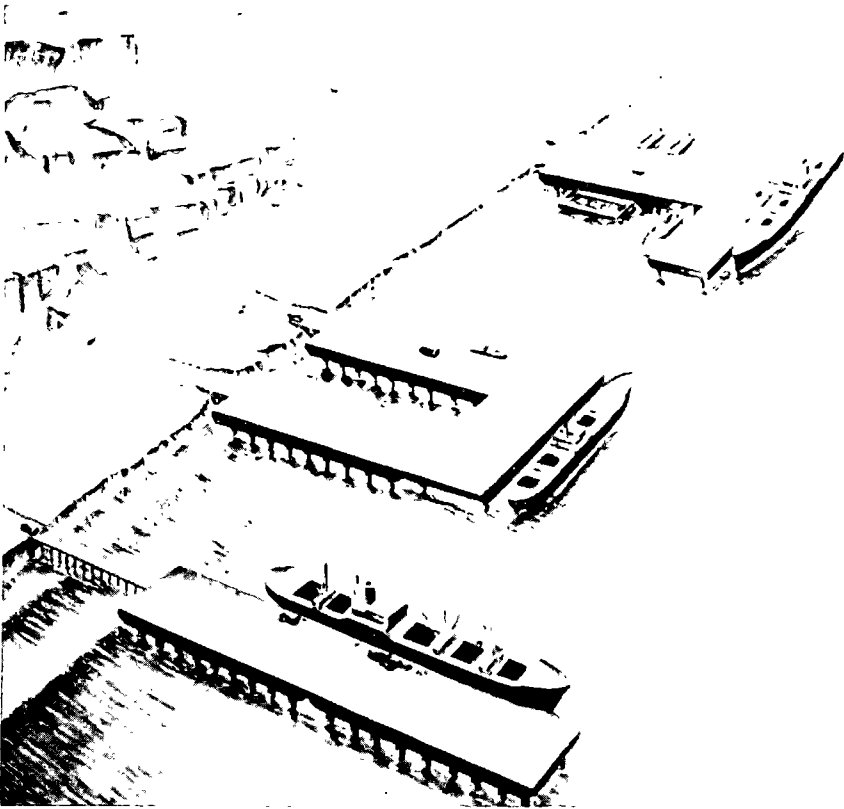


Figure 19. Spud barges used to form finger, marginal, and T-head piers.

seriously interfere with 24-hour operations. If the tidal range is greater than 15 feet, operating difficulties will probably require frequent rerigging of the ship's boom or the use of shoreside cargo handling equipment.

c. Installation. For temporary or emergency installation, the barge is floated into position and jacked up on the spuds so that its weight pushes the spuds into the bottom. This process is repeated as often as is necessary to achieve stabilization. Spuds are not cut off flush with the barge deck (fig. 18). This decreases the working area, which is sacrificed in the interest of urgency, rapidity of installation, and possibility of removal and relocation. To provide additional working area in semipermanent installation, the spuds are cut off flush with the barge deck, filled, and covered with plates. In a permanent installation the spuds are driven to the point of refusal, filled with earth or concrete, cut off, and capped. Using a 20-man crew and excluding shore approach connections, permanent installation requires from 1 to 7 days per barge, the actual time depending upon the nature of the location.

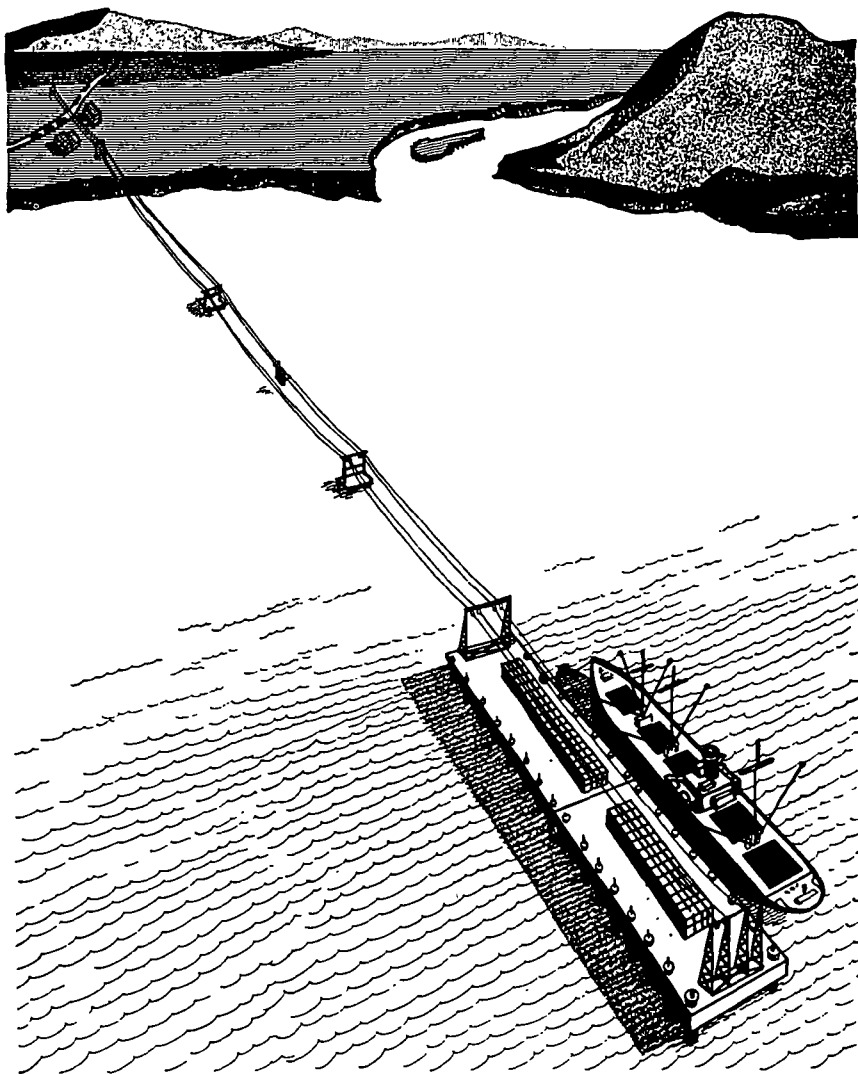


Figure 20. Spud barges forming sea island terminal for aerial tramway.

63. BARC

a. General. The amphibious cargo carrier (BARC) is important because of its large cargo capacity and specialized use (fig. 21). This vehicle was developed to permit the loading of large items offshore and the unloading of these items ashore, away from the congested beach area.

b. Capabilities. Under normal operating conditions, the BARC can carry a load of 60 tons. In an emergency and under ideal conditions, it can carry a 100-ton load. In terms of particular items,

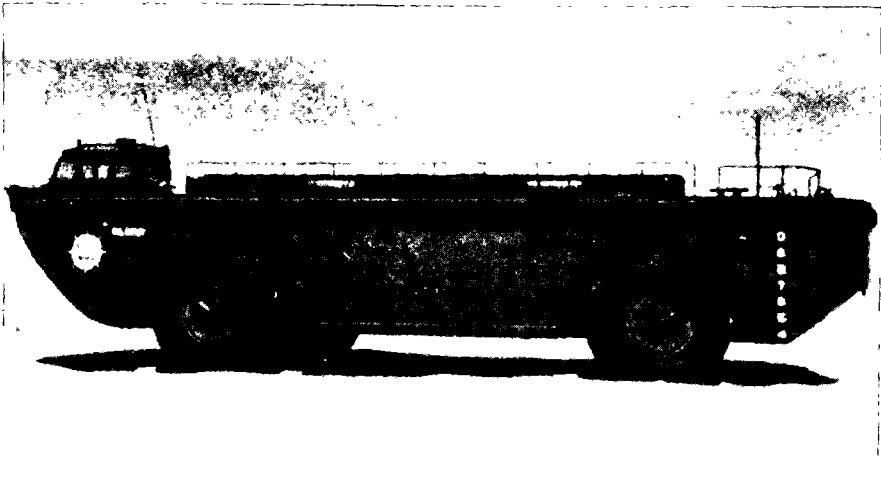


Figure 21. Amphibious cargo carrier (BARC).

the BARC is capable of loading at shipside and placing on the shore, clear of the beach, the largest item of equipment organic to an infantry division. The BARC is also capable of moving diesel-electric locomotives from ship to shore. A total of 125 fully equipped personnel may be transported in the BARC.

64. Wheeled Tractor

The industrial wheeled tractor is equipped with pneumatic tires, is powered by a 186-horsepower diesel engine, and has a 20,025- to 27,000-pound drawbar pull. It is capable of speeds up to 19 miles per hour in forward gear and 8 miles per hour in reverse gear. It can back rapidly and turn within a short radius. Large 21:00 by 25 tapered bead rubber tires provide maximum flotation and traction. These tractors may be used to clear mired vehicles from beaches and dumps and to haul heavily laden low-bed trailers through sandy beach areas to points where they can be more efficiently drawn by prime movers. They may also be used to tow "dead" vehicles, pallets, and heavy equipment from landing craft.

65. Transportation Aerial Tramway

a. General. The transportation aerial tramway is a system of overhead or aerial transportation on which the material transported is both suspended and propelled by wire rope supported by a series of steel towers (fig. 17). The aerial tramway is used to supplement beach or wharf operations, to make available unloading points previously denied because of devastated or inadequate harbors or nonnavigable waters, and to traverse land areas otherwise impassable. In situations where the terrain is unfavorable

or the harbors inadequate, the aerial tramway may be the only practicable means of dry cargo discharge.

b. Capabilities. The aerial tramway system consists of two tracks and four cars. An aerial tramway company can operate this system for a maximum distance of 1 linear mile. An augmentation unit consisting of a special kit and associated personnel is assigned for each additional mile of two-track system.

c. Erection and Maintenance. The Corps of Engineers is responsible for the assembly and erection of the aerial tramway and all maintenance beyond the capabilities of the tramway company itself. Field maintenance on all tramway equipment except the engines and vehicles is performed by the company.

66. Cargo Conveyors

There are two types of cargo conveyors—gravity roller and power operated. They can be used either separately or together in the movement of cargo from shipside or from initial landing locations on the beaches to dump areas inland. Conveyors can be assembled into systems of varying lengths, and it is possible to extend them for several miles. A conveyor system permits cargo to be moved from the beach in the same sequence in which it arrived. Segregation of cargo may be simplified by establishing separate points at which the cargo of the various services may be removed while the conveyor system is operating. When wisely used, conveyors are the backbone of any system handling a large number of unpalletized packages.

67. Cargo Transporter

a. The experience of commercial users of containerized shipments has demonstrated that the use of shipping containers yields worthwhile savings in packaging, handling, documentation, and turnaround time and reduces pilferage and in-transit damage. Surveys by research agencies have indicated that a sufficient percentage of military cargo is adaptable to the principle of containerization to warrant the use of containers in military transportation. As a result of the findings, a reusable steel shipping container (commonly called a cargo transporter) was developed and classified as a standard item of Transportation Corps equipment (fig. 22).

b. The cargo transporter weighs 1,475 pounds and measures 365 cubic feet, gross. It has the following dimensions: length, 8 feet 6 inches; width, 6 feet 3 inches; and height, 6 feet 10½ inches. It has a double door, opening the entire width of one end. The cargo transporter has a cargo capacity of 8,000 pounds and 295 cubic

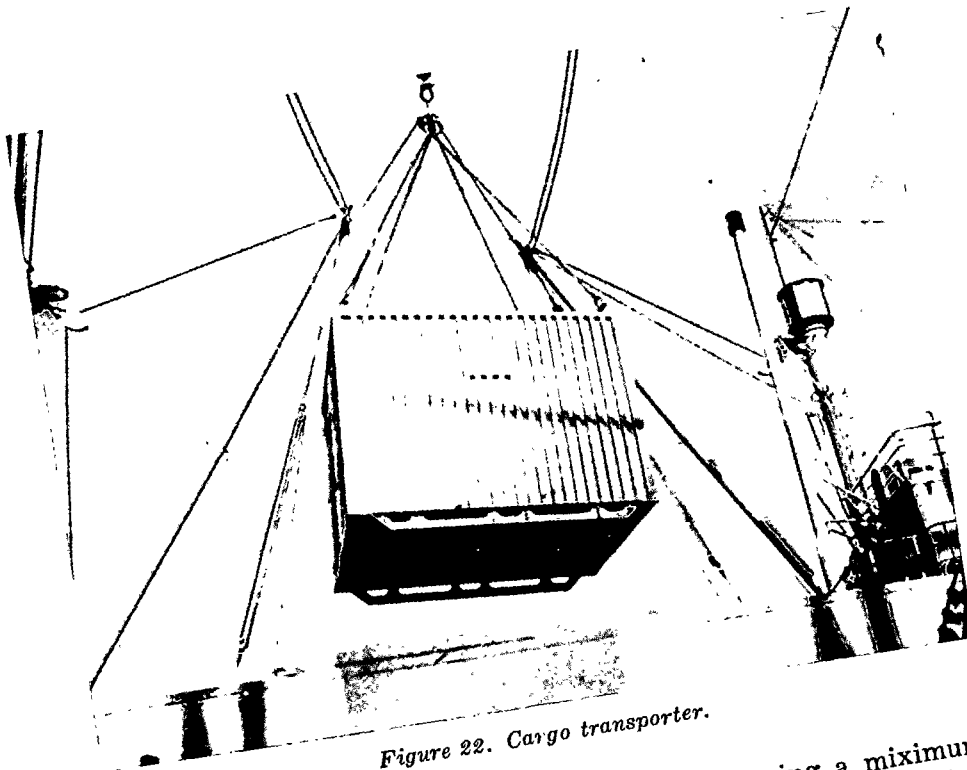


Figure 22. Cargo transporter.

feet; a 1,000-pound overload is permitted, allowing a maximum cargo capacity of 9,000 pounds. It is fitted with skids and has lifting rings at the four top corners. Loaded cargo transporters may be tiered safely three high, with the skids of the upper transporters resting in recesses in the roofs of the lower transporters. The loaded cargo transporter can be handled by forklift trucks, by cranes, and by the cargo falls as usually rigged on the ordinary cargo vessel. One cargo transporter can be carried in a 2½-ton truck; three transporters can be carried in the usual military or commercial flatbed or open-top semitrailer; and six to eight transporters can be carried in the flat and gondola railway cars used in the United States and Europe.

CHAPTER 14

RESPONSIBILITIES OF HIGHER HEADQUARTERS

68. General

Although the transportation terminal battalion is an operating unit, the terminal battalion and terminal service company commanders have planning as well as operational functions. Before the terminal battalion and terminal service company commanders can plan and conduct their operations, higher headquarters must effect coordination and issue the necessary instructions or orders. These actions and other decisions which culminate in instructions or orders are discussed very briefly in this chapter so that terminal battalion and terminal service company commanders may have an understanding of the origin of instructions or orders received. For further information, see FM 55-51.

69. Type of Operation

The terminal battalion is designed to function in either concentrated or dispersed operations. Normally the decision as to the type of operations is made by the commanding officer of the terminal command and will depend on theater directives, the mission of the terminal units, the facilities, the area available, and the tactical situation.

70. Area of Operations

As the tonnage requirements within the theater are increased, areas for terminal operations must be extended. Large and small port complexes must be expanded to include beach sites for logistical over-the-shore operations. Normally, the initial selection of possible beach sites is made by the commander of the terminal command in consultation with proper naval authorities from an extensive study (FM 110-101) of maps and hydrographic charts. Final determination as to the feasibility of operations at these possible sites is made by a detailed ground and water reconnaissance. See paragraphs 79 to 86 for details of the ground and water reconnaissance.

71. Depot Location

Depot and/or dump location is the responsibility of the technical service concerned. The transportation officer of the area command (or the commanding officer of the terminal command) should be

consulted about the location in order to achieve maximum transportation efficiency. The depots are located near the terminal to facilitate clearance of cargo, but not close enough to interfere with operations of the terminal or to create a lucrative target.

72. Employment of Highway, Rail, and Inland Waterway Conveyances in Terminal Clearance

Studies made by terminal commands or higher headquarters of existing intelligence such as port layout maps and detail maps of the port, the beaches, and the surrounding area help to determine to what extent each mode of transportation (highway, rail, or inland waterway) may be used. The principles for operation and control of these modes of transportation in terminal operations are also covered in FM 55-51.

73. Ship Destination Meeting

The ship destination meeting is presided over by the communications zone G4 or his representative and attended by representatives of the Military Sea Transportation Service (MSTS); the major agencies to which inbound personnel, supplies, and equipment are destined; and the communications zone transportation officer. This meeting determines the destination within the theater of ships en route to the theater.

74. Cargo Disposition Instructions

Before the ship's arrival and upon receipt of the air-flown ocean manifests from the loading terminal, the communications zone G4 extracts and forwards pertinent sections of the ocean manifest to the appropriate technical services. Each technical service replies by a shipping directive that gives the destination of its particular cargo. These directives are consolidated and cargo disposition instructions (CDI) are prepared by the communications zone transportation officer. A separate CDI is prepared for each vessel. After determination of the vessel's final destination (par. 73), the CDI is forwarded through channels to the terminal battalion concerned. The CDI shows the name of the vessel, point of discharge, estimated time of arrival (ETA), priority of discharge and clearance, disposition of all cargo aboard, and the mode of conveyance for movements exceeding the normal terminal clearance capability. It is therefore important that cargo disposition instructions be in the hands of the commanding officer of the terminal battalion as soon as possible—normally 48 hours before the berthing of the ship.

75. Cargo Clearance

a. General. The terminal commander is responsible for the segre-

gation of cargo and its clearance from the water terminal. The importance of prompt clearance cannot be overemphasized. The most efficient method of clearance is to discharge cargo directly from ship to terminal clearance vehicles, but operating conditions do not always permit this. Conditions which may prevent direct clearance from shipside are: cargo mixed to such an extent that it cannot be segregated during discharge without delaying operations; special situations which require segregation of cargo by item, lot, or weight zone (ammunition); lack of proper conveyances; inability of receiving installations to accept cargo promptly; and delays in the receipt of cargo disposition instructions. When such conditions exist, cargo may be moved to segregation and/or temporary storage areas. However, cargo should be moved to a segregation and/or temporary storage area only when the lack of prompt clearance hinders the vessel discharge operation.

b. Segregation Areas. The number and location of segregation areas within a terminal depend on availability of suitable sites, type and quantity of cargo to be discharged, equipment and personnel available, and the modes of transportation used for terminal clearance and their location. Generally, it is desirable for each terminal battalion to have a separate segregation area, but in some situations two or more battalions may have to use the same area. The areas should have a hard surface and be located near both the discharge point and the inland transportation net to permit the efficient use of materials handling equipment in moving cargo from shipside to the area, within the area, and from the area to the transportation net.

c. Temporary Storage (Backpile) Area. Temporary storage areas are usually located adjacent to or very near the cargo segregation area. Cargo placed in temporary storage (*a* above) should not exceed 1 day's discharge and should be cleared from the terminal area at the earliest possible time.

76. Personnel Movements

a. General. Terminal commands are responsible for the processing of personnel through their facilities. All personnel movements are coordinated and supervised by the troop movement officer, G3 (S²) section, of the terminal command headquarters. Actual operations are performed by the terminal battalion and its terminal service companies.

b. Inbound Movements. The passenger list (app. II) provides the information from which specific and detailed plans are made for the reception of incoming personnel. Ordinarily, predebarkation coordination is effected through routine administrative means. However, the commanding officer of the terminal command may

decide to hold predebarkation meetings before the vessel's arrival if circumstances make it desirable.

c. Outbound Movements. Higher headquarters determines the requirement for outbound personnel movements and arranges with MSTs for the required lift, notifying the terminal command of the movement. The operations branch (G3/S3) of the terminal command prepares the tentative loading plans, which must comply with the berthing plans formulated by MSTs. The commanding officer of the terminal command appoints the senior officer of the embarking troops as the troop commander and is responsible for his being properly instructed as to his duties and responsibilities. As in inbound movements, the preembarkation coordination may be handled by routine administrative means or the terminal commander may decide upon preembarkation meetings.

d. Staging Units. Terminal commands responsible for processing troop units, both inbound and outbound, may be required to operate staging facilities. For this purpose staging area companies (par. 59) are assigned to the terminal command. In general, the processing of casualties is the responsibility of the replacement command. For inbound movements casualties are generally moved directly to replacement command facilities. If possible in outbound movements, casualties are retained in these facilities until called in by the terminal command for embarkation.

77. Outbound Cargo

Cargo within the theater which must be moved through the terminal to an overseas destination is reported to the communications zone transportation officer by the shipping agency. After consolidation of the requirements for movement, the transportation officer selects the loading terminal, notifies that commander in detail (FM 55-51) about the cargo to be moved, and arranges with MSTs for a bulk allocation of space to carry this outbound cargo. The commander of the terminal command responsible for the selected terminal assigns the loading mission to a terminal battalion, informs the battalion commander in detail about the cargo to be moved, and effects the necessary local coordination with MSTs for specific space aboard a vessel or vessels. Details of the coordination between the terminal command and MSTs are also covered in FM 55-51.

78. Area Defense and Damage Control

It is recognized that first priority on the efforts of service troops is the performance of their primary mission. However, logistical operations may be disrupted by enemy attack, and the continuance of logistical support may become dependent upon immediate action

to minimize the effects of that attack. Therefore, service units must be prepared at all times to provide troops and equipment for the execution of damage control plans. Each military unit is responsible for the damage control and the local security of the unit and its installations, and it may be required to provide area defense and/or damage control assistance to other units and installations. Detailed coordinated planning on the part of all commanders is required, and these plans are published as annexes to standing operating procedures.

a. The primary objectives in planning for rear area defense are to prevent serious enemy interference with administrative operations in support of the combat troops and to destroy the hostile forces involved. The types of attack that may be expected in rear areas are characterized by surprise, deception, and mobility. Normally, service units are responsible only for their own local defense. Combat troops are provided to perform missions such as patrolling, convoy escort, and seeking out and destroying enemy forces operating in the rear areas.

b. The purpose of damage control plans is to prescribe measures to be taken to aid in the reestablishment of administrative support by minimizing the immediate effects of a mass destruction attack (such as from a guided missile or bombardment) or a natural disaster.

c. Detailed information on rear area defense and damage control planning is contained in FM 100-10 and in publications referenced therein.

CHAPTER 15

BEACH RECONNAISSANCE AND ORGANIZATION

79. General

Reference was made in paragraph 70 to the preliminary selection of beach sites for logistical over-the-shore (LOTS) operations followed by a detailed ground and water reconnaissance to determine the feasibility of the site for operations.

a. The party to conduct the ground and water reconnaissance must include personnel capable of advising the terminal commander on such matters as—

- (1) The engineering effort required to prepare and maintain the area.
- (2) The signal construction and maintenance required for necessary communication within the beach area, as well as between the beach area and the terminal command headquarters.
- (3) The need for and location of beach dumps, cargo transfer points, maintenance areas, etc.
- (4) The types of lighterage that could be employed most effectively—amphibious vehicles, landing craft, etc.
- (5) The need for and location of a safe-haven facility for lighterage.
- (6) The location and desirability of anchorage areas.
- (7) The possibility of using an aerial tramway (fig. 17), spud piers (figs. 18 and 19), and other new and special equipment.
- (8) Vulnerability to enemy attack of the terminal area, its seaward approaches, and its connections with the interior.

b. The typical reconnaissance party should consist of, but should not be restricted to, the following personnel:

- (1) G3/S3 of the terminal command—to coordinate or supervise the reconnaissance team and recommend task organization.
- (2) Transportation terminal battalion commander and appropriate members of his staff.
- (3) An engineer officer, preferably from the supporting engineer unit.
- (4) A signal officer, preferably from the supporting signal unit.

- (5) Representative of amphibious vehicle units if they are to be employed—to locate desirable entrance to and exits from water, transfer points, etc.
- (6) Representative of harbor craft and/or landing craft units to be employed—to select beach areas, anchorages, maintenance areas, navigation aids, etc.
- (7) Representative of units with special type equipment to be employed—to advise on the use and/or installation of such equipment.
- (8) Naval representative if available—to determine anchorage areas and naval support required.

80. Beach Selection

a. Anchorage Areas.

- (1) *General.* Anchorage areas are defined as sheltered areas which are inside or near a harbor and which are unaffected by swell, where ships may anchor and discharge by lighter. The Navy is responsible for designating the anchorage areas for MSTs vessels. In the absence of a naval representative and/or recommendations for anchorage areas, the reconnaissance party must determine whether the beach area selected has sufficient anchorage to accommodate the number and types of ships required to support the beach operations being planned. If the naval representative has indicated the anchorage areas that are acceptable to the Navy, they must be examined to determine whether the lighterage to be used can traverse the area between the anchorage areas and the beach. For example, sandbars or reefs just offshore may preclude the use of LCM's, LCU's, or barges and necessitate the use of amphibious vehicles until a channel can be cleared.
- (2) *Salient features to be considered.*
 - (a) *Depth.* For large cargo ships, a minimum depth of 30 feet and a maximum of 210 feet is required. The minimum depth is dictated by the maximum draft of ships to be discharged and the ground swell conditions; the maximum depth is imposed by the length and weight of anchor chain.
 - (b) *Size.* A circle with an 800-foot radius is required to provide a free-swinging area. Dispersion requirements, however, may necessitate a much larger radius if operations are being conducted under threat of atomic warfare. Bow and stern mooring is not considered desirable in tidal areas because athwartship currents cause excessive strain on mooring gear and

appreciable changes in depth necessitate continuous watching of the anchored vessels. The type of offshore bottom also has a significant bearing on how close ships can be anchored to each other because a ship will drag anchor if the bottom is too rocky or slushy.

- (c) *Landmarks.* Landmarks (especially those assisting navigation and location of beaches) such as prominent hills are helpful.
- (d) *Underwater obstacles.* Underwater obstacles, such as bars, shoals, reefs, rocks, wrecks, and enemy installations which might interfere with the passage of vessels to and from the area should be noted. An estimate should be made of the degree of interference offered and the amount of work involved in clearing channels.

b. *Beaches.*

- (1) *General.* A beach is the zone that extends inland from the extreme-low-water line either to a line that shows a marked change in material or topography or to the line of permanent vegetation (usually the effective limit of normal storm waves). It includes foreshore and backshore (fig. 23). As used in this text, a beach includes the underwater features which affect the beaching of landing craft and lighters and the landing of amphibious vehicles. The length of a beach is the distance between the right and left flanks measured at the water's edge. The width of the beach is the distance inland from the low-water line to the coastline.

(2) *Characteristics to be considered.*

- (a) *Offshore bottom.* The gradient and nature of the immediate offshore bottom dictate to a large degree the type of lighterage that can be used in an area. If there is an offshore bar or a very flat gradient, landing craft and barges may not be able to reach the shoreline until channels have been prepared. The bottom sediment may consist of different substances, such as mud, sand, rock, coral, coral heads, boulders, or any combination thereof, and may vary widely on different parts of a single beach. The characteristics most important are proper gradient, smoothness, and bearing strength.
- (b) *Underwater gradient.* Beaches having long, slowly graduated underwater gradients cause landing craft to ground a considerable distance from shore. This increases operational hazards and discharge time. Conversely, steep underwater gradients are difficult to traverse in adverse weather because of severe surf con-

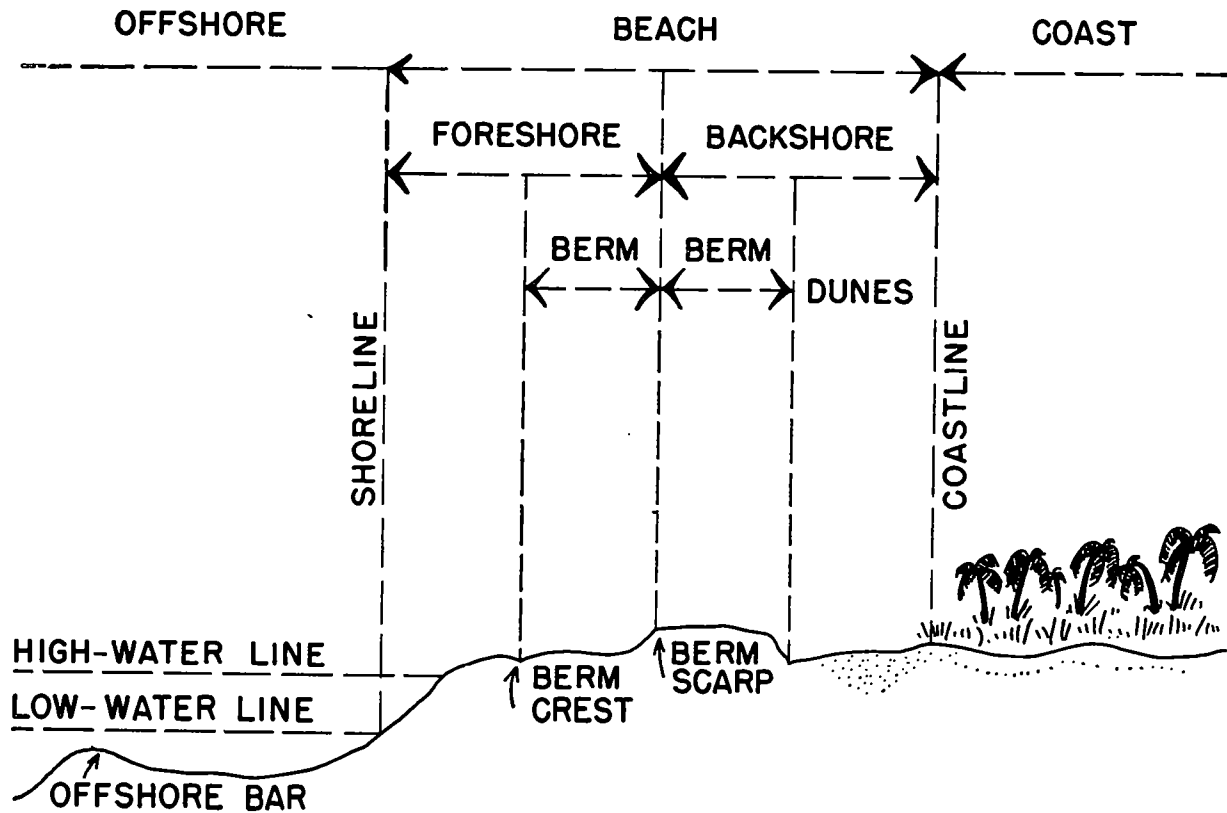


Figure 23. Profile showing beach and offshore characteristics.

ditions. They also present a problem in discharge because landing craft have difficulty remaining in position. Beach gradients are classified according to the degree of slope to the horizontal. This is usually expressed as a ratio in terms of feet as follows: steep, 1 in 1 to 1 in 15; moderate, 1 in 15 to 1 in 30; gentle, 1 in 30 to 1 in 60; mild, 1 in 60 to 1 in 120; flat, 1 in 120 and less than 1 in 120. Ideal gradients are those classified as moderate or gentle slopes.

(c) *Currents, tides, and surf (location, speed, and direction).* The rise and fall of the tide and surf and swell conditions, including the angle at which the surf strikes the beach, affect the use of landing craft and amphibious vehicles.

(d) *Consistency of beach.*

1. *General.* Beaches are classified according to the materials of which they are composed, such as silt, mud, sand, pebble, cobble, shingle, and boulder, or a combination of these such as sand and shingle (fig. 24). The most common of these materials suitable for beach operations without much engineering effort is sand or a combination of sand and shingle. However, offshore bar and shoal formations are common to such beaches.

	TYPE	SUBSTANCE	SIZE
BEACH	GRAVEL	{ BOULDER COBBLE PEBBLE GRANULE SHINGLE	HUMAN HEAD COBBLESTONE WALNUT MATCH HEAD FLAT STONES VARY- ING IN SIZE (USUALLY 1 TO 4 INCHES AND DISK-SHAPEO)
	SAND	SAND GRAIN	SAND
MUD FLAT	{ SILT CLAY	{ SILT PARTICLE CLAY PARTICLE	{ POWDER FINE POWDER

Figure 24. Size comparison of deposits on beaches and mud flats.

2. *Sand beaches.* When sand beaches are used, it is usually necessary to build beach roadways to support the vehicles. Pierced steel planking, coral, gravel, or similar material may be used, or water may be pumped or spread over the beach. Damp or wet sand has a greater bearing surface than dry sand.

3. *Sand and shingle beaches.* In general, a sand and shingle beach is preferable to a sand beach because it usually has a better bearing surface and permits easier

exit from the beach. On the other hand, the sand and shingle may overlay mud or peat, in which case the surface is particularly treacherous.

81. Beach Capacity

a. General. For general planning, beach capacity may be determined by applying the data contained in FM 101-10. However, these data are based on average conditions and are seldom applicable to a specific beach operation. To determine the capacity of a particular discharge site, several factors must be considered. These factors can be divided into two groups—those which limit the cargo handling capacity on the beach and those which restrict the flow through the area because of the nature of the beach and the hinterland. The group of factors which most limits the quantity of supplies that can be handled determines the capacity of the beach.

b. Factors Affecting Handling Capacity.

- (1) Personnel available for discharging ships and handling cargo on the beach and in the dumps of transfer points.
- (2) Type and availability of mechanical aids and transportation equipment for beach clearance.
- (3) Types and amount of lighterage available for operation.
- (4) Enemy's ability to interrupt operations.

c. Limitations Imposed by Terrain. Most of these factors are self-explanatory or have been covered in preceding paragraphs of this chapter. However, beach exits and the nature of the hinterland play such important roles in beach capacity that they are discussed in detail. Possible limitations are—

- (1) Length and width of the beach.
- (2) Underwater obstacles.
- (3) Tidal range.
- (4) Strength and direction of tidal stream (rip currents and littoral currents).
- (5) Surf.
- (6) Gradient of beach as it affects the landing of lighterage and the movement of supplies across the beach proper.
- (7) Bearing surface of the beach.
- (8) Availability and nature of beach exits.
- (9) Nature of the hinterland.
- (10) Weather.

d. Beach Exits.

- (1) The capacity of a beach to discharge and clear supplies

and personnel to inland destinations is often limited by the capacity of the road net from the waterline to dumps, to principal inland areas, and to the interior communications net. The useful capacity of the beach can never exceed the capacity of this road net. Therefore, an early and detailed analysis must be made to determine the capacity of the existing road net. If the capacity is inadequate, new roads must be built. This requires additional engineering support both for construction and maintenance.

- (2) The number of exits required varies according to the physical characteristics of the roads, the type and amount of cargo to be handled, and the type of conveyance to be used in beach clearance. Different types of equipment should have separate routes. For example, a road used for tracked vehicles is unsatisfactory for wheeled vehicles because the lugs of the tracked vehicles cut the road and the rate of march for tracked vehicles is slower than for wheeled vehicles. Amphibious vehicles may spill water from their bilges as they move inland and cause gravel and dirt roads to become soft. Conventional wheeled vehicles normally have a faster rate of march than other vehicles.
- (3) The nature of the area adjacent to the beach is a factor which may limit the number of possible exits from the beach. An otherwise ideal beach may be backed by sand dunes, seawalls, swamps, or other obstacles which hamper beach clearance operations.

e. Hinterland. In the selection of a beach for the unloading of cargo, the reconnoitering officer must consider more than the beach and its exits. Thought must be given to the availability of a road or rail net or the possibility of building one to tie the beach exits and/or beach dumps to the main transportation net. Consideration must also be given to the existence of or need for telephone and telegraph lines, radio stations, and powerlines. If suitable roads exist, thorough reconnaissance should be made to determine their exact physical characteristics. The strength and width of any bridges in a road net are of prime importance in evaluating capabilities or limitations.

82. Beach Dumps

a. Beach dumps should be planned to provide such dispersal of supplies as is necessary to localize the effect of possible enemy action and to allow efficient reception, segregation, storage, and forwarding of supplies.

b. Dumps must not be regarded as permanent features, but as temporary expedients to be used until regular depots can be established or until transportation facilities become capable of handling supplies directly from ship to depot.

c. Factors to be considered in locating dumps are—

- (1) Dumps should be located away from main roads in order to minimize road congestion and to present less lucrative targets for mass destruction weapons.
- (2) Roads leading from the main road to the dumps must be kept in good condition.
- (3) Each dump should have a separate entrance and exit.
- (4) If tracked vehicles are to be used as well as trucks and amphibious vehicles, the need for separate traffic circuits should be considered.
- (5) The ground should be level and firm and not subject to flooding.
- (6) Areas should be large enough so that the dumps can be expanded to meet anticipated maximum requirements.

83. Beach Management

At each LOTS discharge point the beach is the area which requires the closest attention and the greatest supervision. The success of each beach operation depends to a great extent on the efficiency of cargo operations on the beach itself. Supplies and equipment being brought to the beach must be kept moving across it toward supply dumps or depots. A blocked and cluttered beach not only offers a lucrative target to the enemy but hinders the movement of cargo in any quantity. Some measures which assist in clearing supplies and equipment from the shore are—

a. Adoption of alert systems and defense plans to prevent a surprise enemy attack and to enable the terminal to maintain an adequate defense.

b. Continuous improvement of the beach in general to increase overall operational capacity and efficiency.

c. Advance planning to enable the handling of peak workloads without disrupting operations.

d. Maintenance of close liaison and coordination with the dumps and depots so as not to exceed their receiving capacities and yet maintain a near-capacity flow of cargo to them.

e. Separation of water exits for amphibious vehicles from the landing areas of the landing craft to prevent clearance conflict.

f. Holding documentation, records, and reports to a minimum.

g. Location of beach parking areas for materials handling equipment and clearance vehicles in areas readily accessible to the discharge points.

h. Adoption of an enforced traffic circulation plan to avoid conflict in the flow of traffic.

i. Location of bivouac areas and messing areas so as to prevent unnecessary loss of time in moving personnel to and from working points.

j. Making maximum use of amphibious vehicles.

84. Control of Clearance Transportation

Transportation requirements for clearing personnel, supplies, and equipment from the beaches usually exceed available capacity. Close planning and supervision are necessary to achieve maximum use of the allocated equipment. The establishment of vehicle parks and pools nearby keeps the beaches free of unnecessary traffic and permits vehicles to be called and directed to loading points as required. Proper dispatch of vehicles upon completion of loading enables the vehicle dispatcher to inform the driver of the cargo destination and to check the documentation. After the run has been completed, the vehicle returns to the vehicle park. This process makes possible a complete record of the vehicle's trip, including tonnage, type of cargo carried, distance, and time necessary for the run. A close survey of these records often discloses deficiencies, such as excess time or distance. Since clearance transportation is a key to the successful accomplishment of the clearance program, constant attention and close control are necessary.

85. Beach Transfer Points

a. The requirement for beach transfer points should be considered during the reconnaissance and, if needed, their locations should be designated.

b. Normally, beach transfer points are those locations where the cargo is transferred from the amphibious truck to the land mode of transportation (generally the cargo truck) which will carry this cargo to its initial destination. The initial destination is the first place of rest after leaving the beach site. A desirable beach transfer point will have the following characteristics:

- (1) It should be located on or just back of the beach so as not to interfere with operations at the shoreline.
- (2) It should be on or near the route the amphibious vehicle travels in moving from and to the water.
- (3) It should be near the cargo truck route to and from the beach where cargo trucks moving in the traffic pattern

can receive their load without interference with other traffic and still have access to and exit from the transfer point.

- (4) It should be so selected that the amphibious vehicle will cross the beach. This dispenses with the necessity of preparing a roadway on the beach for the cargo truck.
 - (5) There should be room for a roadway on either side of the crane or cranes operating at the transfer point so that there is no interference between the amphibious vehicle and the cargo truck.
 - (6) The crane or cranes should be located on firm, level ground with their longer axes parallel to the direction of movement of the vehicles so that the loads can be transferred with the least amount of movement of the boom.
- c. Beach transfer points have many advantages. They serve—
- (1) To reduce congestion at the waterline.
 - (2) To increase terminal throughput capacity.
 - (3) To clear selected high-priority cargo from ships to the rear of the beach as quickly as possible.
 - (4) To select, without excessive rehandling, the best available mode of transportation.
 - (5) To reduce the overland distance traveled by amphibious vehicles.

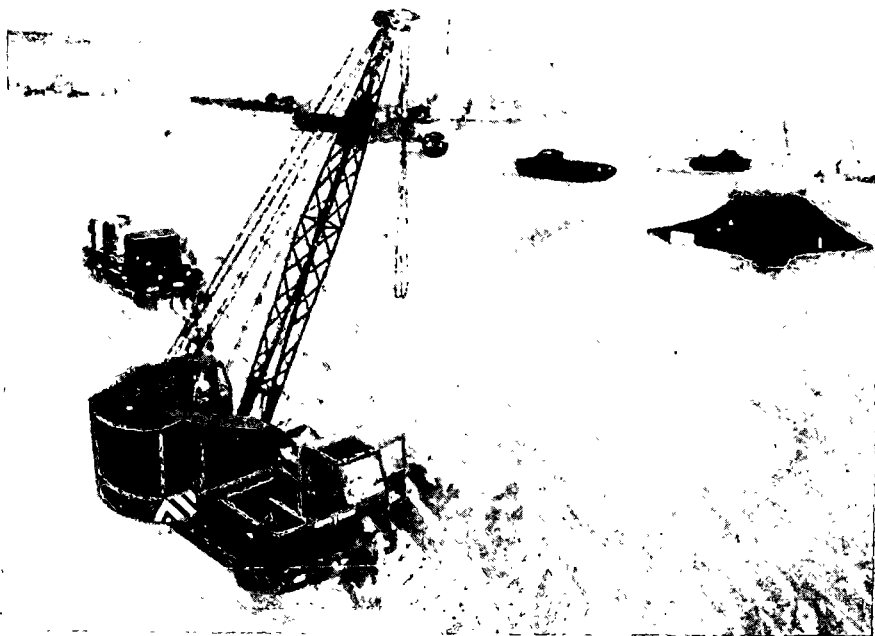


Figure 25. Use of truck cranes at beach segregation area to unload cargo from trucks.

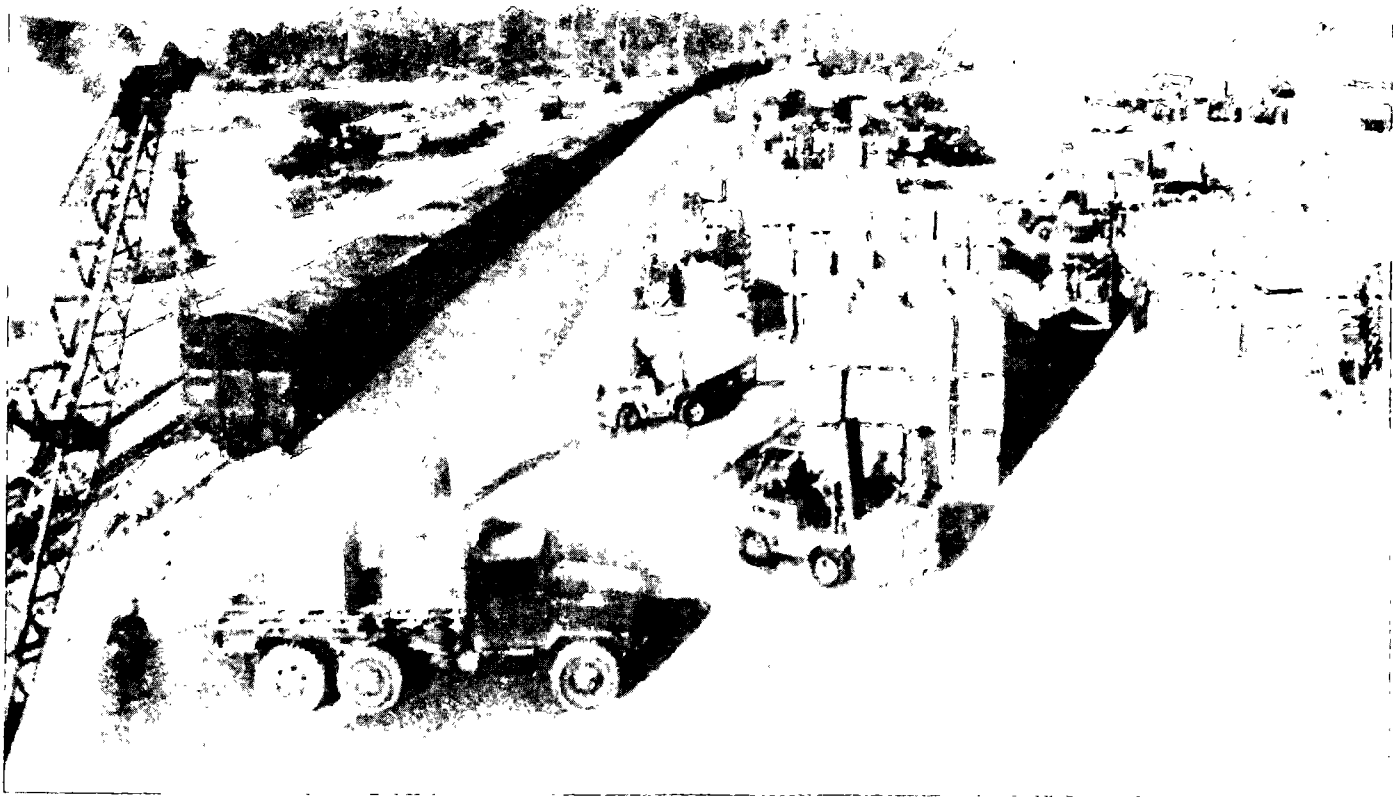


Figure 26. Rail cars being loaded from beach segregation area.

86. Cargo Clearance in Dispersed Operations

a. General. In general, the principles of cargo clearance in beach operations are the same as for developed areas (par. 75). However, differences in the physical characteristics of the operating areas may require modification of procedures and use of different equipment.

b. Location and Number of Segregation and/or Temporary Storage Areas. To determine the number and location of segregation and/or temporary storage areas required to support a beach operation, consideration must be given to the type of lighterage to be used and the location of the lighterage discharge point in addition to the factors discussed in paragraph 75. It may be necessary to establish small segregation and/or temporary storage areas near the transfer points used by amphibious vehicles to accommodate cargo which cannot be immediately transferred to another mode of conveyance. Other areas may be required near the discharge points used by landing craft. Although the number, location, and size of these areas required in beach operations may differ from those required in developed areas, the principles of operation and cargo segregation are the same. Figures 25 and 26 illustrate two methods of handling cargo at segregation areas.

CHAPTER 16

TRANSPORTATION TERMINAL BATTALION IN OPERATIONS

Section I. OCCUPATION OF AREA

87. General

a. The operations of the terminal battalion are based upon the principles of flexibility of employment and decentralization of control. Flexibility of employment is obtained by providing the terminal service company with all the equipment necessary to enable it to perform independently of any parent organization. Decentralization of control is obtained by organizing terminal units so that they have sufficient command control over their operations to function, even when enemy action has neutralized their parent organization.

b. The decentralization of command should be clear and concise. Each terminal battalion commander (or terminal service company commander) when operating separately should be given operating troops and equipment, an operational area, and a mission.

- (1) *Operating troops and equipment.* The organization of the battalion was discussed in paragraphs 6 and 7. All terminal units are equipped with organizational equipment sufficient for normal operations. Special equipment is normally assigned to the terminal command and can be obtained by subordinate units on a mission basis.
- (2) *An operational area.* The terminal battalion is normally assigned an operational area by the commanding officer of the terminal command. Should the battalion be operating separately, the assignment to an area is normally made by the section commander upon advice of his staff transportation officer.
- (3) *A mission.* A mission is normally assigned by the commanding officer of the terminal command and should be stated in terms of loading or discharging specified ships, handling a given amount of tonnage, processing a given number of personnel, or performing a combination of the foregoing tasks.

c. Although the principle of decentralization is as valid under concentrated conditions as under dispersed operating conditions,

it may not always be possible to assign each battalion separate operating areas.

88. Organization of Battalion Area

a. General. The organization of a battalion area by the terminal battalion commander should proceed in a logical and orderly manner. The principles of organization of a battalion area are the same under concentrated conditions as under dispersed conditions. The problems of organization are discussed in detail because they are generally more complex under dispersed conditions. In dispersed operations the terminal battalion will normally—

- (1) Be organized with amphibious and/or lighterage units of some type.
- (2) Operate over a beach in an undeveloped area.

b. Reconnaissance. The first step is reconnaissance for selection of unit administrative and operational areas. Beach reconnaissance is discussed in detail in chapter 15. The commanding officer of the terminal battalion (most probably accompanied by his S3 and his terminal service company commanders) and representatives of amphibious and/or lighterage units were members of the party which made the reconnaissance for an operational beach site. During this reconnaissance the battalion commander was able to—

- (1) *Assign company areas and beach frontages.* In making the assignment of company areas and beach frontages, the factors in beach management discussed in paragraph 83 were considered.
- (2) *Indicate areas of responsibility for defensive purposes.* Areas of responsibility for defensive purposes are picked after consideration of the principles outlined in paragraph 78 and of the routes to these defensive positions from company bivouac and working areas.
- (3) *Locate his temporary command post.* A discussion of the location and organization of the battalion command post is covered in paragraphs 20 and 21.
- (4) *Select the amphibious-truck-to-cargo-truck transfer point or points.* See paragraph 85 for a discussion of the beach transfer point or points.
- (5) *Locate cargo segregation and/or temporary storage areas.* See paragraphs 75 and 86 for details of location of cargo segregation and/or temporary storage areas.
- (6) *Estimate the time at which the battalion should become operational.* The time at which the battalion becomes operational may be dictated in the terminal command directive.

c. Displacement and Occupation. The second and third steps are the displacement of the battalion and the occupation of the new operational site. The displacement and the occupation should proceed according to battalion SOP. When beach frontages are some distance apart and the battalion commander assigns separate company areas, the company commanders organize their areas independently. If the battalion occupies a single beach, the company commanders coordinate the organization of their areas under the supervision of the battalion S3. During this phase of the organization of the beach, commanders of amphibious and lighterage units are present and work very closely with the terminal service company commanders whom they will support. Their advice concerning the location of landing sites and/or water exits (which should be outside the landing sites and near a location where sea water can be drained from bilges of amphibious vehicles without affecting overall soil stability) may be invaluable and preclude errors that might cause delays during operations. The assistant S3, knowing the locations of unloading points, water exits, beach exits, transfer points, segregation areas, and truck parks, immediately undertakes the formulation of a traffic circulation plan (FM 100-10) for the battalion area and its connections with lines of communication into the hinterland. The battalion S1 coordinates the movement of the headquarters and headquarters detachment to the new location and supervises the organization of the command post. As soon as its elements are in position and the battalion is operational, the fact should be reported to the terminal command. The terminal command then directs the representatives of the military police, truck units, and other elements which are to support the battalion's operation to report to the battalion command post for orientation on the organization of the area.

Section II. OPERATIONAL PLANNING

89. General

The operations section of the terminal battalion begins its planning immediately upon receipt of the mission. The mission to discharge a specific ship will be accompanied by the ship's papers (cargo stowage plan, hatch lists, and ocean manifest (app. II)) and the cargo disposition instructions (par. 74). The planning, which usually is done simultaneously with the planning for the discharge of other vessels, is based upon these papers and the personnel and equipment available. It includes a determination of—

a. Point of discharge—wharf or anchorage.

b. Unit or units to be used—terminal service company, amphibious truck company, boat company, etc.

- c. Special equipment required for special or heavy lifts.
- d. Priorities of discharge, if any.
- e. Arrangements for terminal clearance, including transportation required, depot capability to receive, and necessity for temporary storage or further segregation.
- f. Documentation required and, if centralized, personnel to accomplish it.

90. Discharge Over Wharves

Planning discharge operations over wharf facilities should include planning for discharge alongside a wharf, by lighter, or by a combination of both. Plans should be based on the use of Army personnel and the ship's gear, but allowance can be made for the use of other equipment and local civilian labor when available. Possible delays caused by weather conditions or enemy action must be considered when planning.

a. *Wharf Requirement for Alongside Discharge.* A wharf used for alongside discharge requires a water depth sufficient to accommodate the average, fully loaded vessel. For planning purposes, each vessel requires 500 feet of wharf space and a water depth of 30 feet at low tide. Where only one side of a wharf is being used, a wharf width of 60 to 90 feet is desirable; where vessels are to be worked on both sides of the wharf, a wharf width of at least 90 feet is recommended. These widths allow sufficient working space for efficient discharge.

b. *Lighter Discharge* (figs. 27 and 28). Ship-to-lighter discharge may be required for one or more of the following reasons:

- (1) To expedite discharge by permitting simultaneous discharge on both sides of vessels.
- (2) To prevent rehandling of cargo which is to be cleared from the terminal by inland waterway.
- (3) To lighten heavily laden vessels in deepwater anchorages so that they may be accommodated at shallow depths alongside berths for further discharge.
- (4) To fully discharge vessels in the anchorage area when wharf facilities are inadequate.
- (5) To receive heavy lifts discharged by floating cranes.

91. Wharf Requirements for Lighter Discharge

a. Practically any wharf may be used for lighter discharge. Wharves from which the waters recede at low tide may be used by berthing the lighters during high tide and discharging them during low tide.

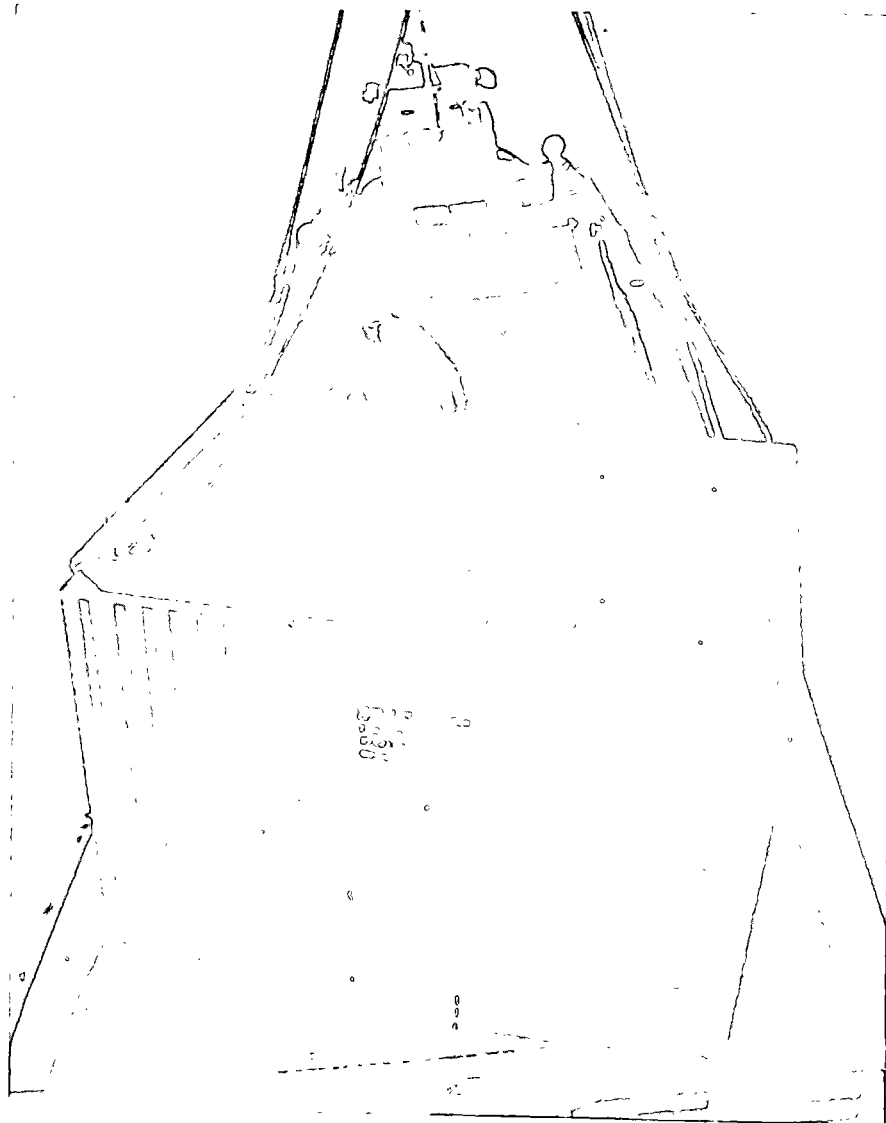


Figure 27. Lighter discharge: cargo transporters being loaded from a ship onto an LCM.

b. Wharfage length for barge type lighters should be 100 feet. For discharging on one side only, a minimum width of 35 feet is recommended; for discharging on both sides, a minimum width of 42 feet is recommended.

92. Berth Assignment

Proper assignment of berths is extremely important. Several factors, such as size, construction, facilities, and depth of water

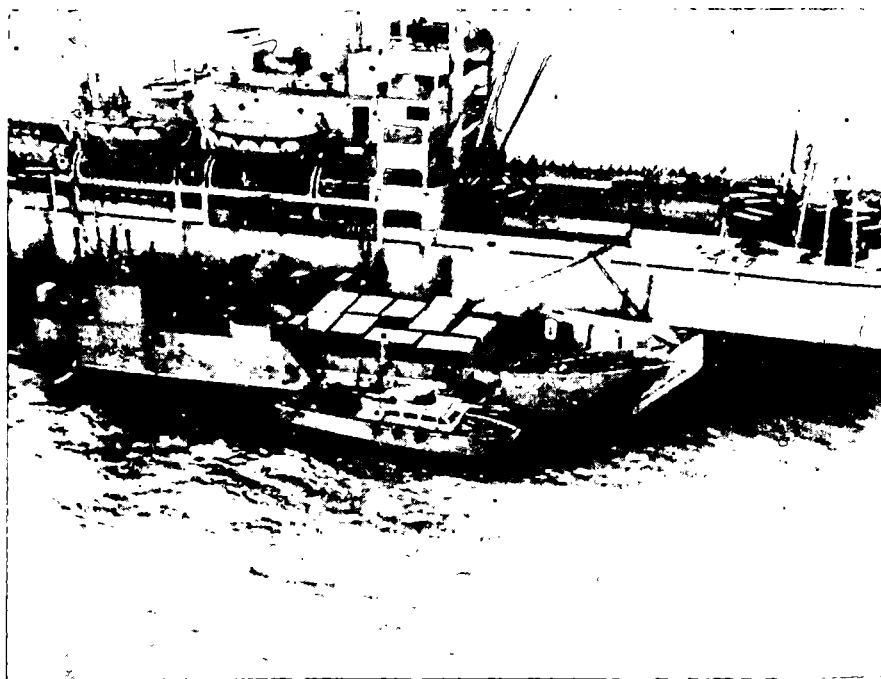


Figure 28. Lighter discharge: an LCU being loaded with cargo transporters.

must be considered. Selection of the best available discharge site for a particular vessel shortens turnaround time, increases rate of tonnage discharged, and helps prevent damage to cargo. Generally, the terminal battalion commander selects the berth assignment for a cargo vessel. Final determination of anchorage or berth assignment rests with the terminal commander or his authorized representatives, but this authority is seldom exercised. Factors to be considered in berth assignment are—

- a.* Destination of cargo.
- b.* Types of cargo.
- c.* Capability of discharge point to handle cargo.
- d.* Capability of clearing cargo from discharge point to destination—this includes segregation and temporary storage if required.
- e.* Ability of wharf to accommodate vessel—draft, beam, and length of vessel; working space on the wharf.
- f.* Type of discharge operation—ship to wharf or ship to lighter to wharf.
- g.* Modes of inland transportation available.
- h.* Projected shipping schedule and ship ETA's for the next several days.

Section III. OPERATIONAL FUNCTIONS

93. General

The operational functions of the transportation terminal battalion are the responsibility of the battalion commander. He is assisted by his operations officer, who has the staff responsibility for these functions.

94. Coordination With Military Sea Transportation Service (MSTS)

a. MSTS representatives located at terminal command headquarters will visit and otherwise maintain liaison with the battalion headquarters. Control of ocean shipping is exercised by MSTS (FM 55-51). All orders to ships' masters are delivered by the MSTS representative, whose influence with the ships' masters is most important in gaining maximum working time in bad weather and obtaining cooperation from ship personnel.

b. Theoretically, the battalion commander makes his desires known to the ships' masters through the MSTS representatives; however, in practice, many routine arrangements are made directly between terminal personnel and ships' personnel.

c. Because the success of the mission of the terminal battalion depends in a large measure upon the coordination and teamwork of the MSTS representative and the battalion commander, this phase of the battalion function in operations is most important. The ability of the terminal battalion to move cargo depends, in part, upon its ability to work continuously. Weather, operating condition of ships' gear, and the amount of cooperation given by ships' officers have a direct bearing upon the ability to work continuously.

95. Special Equipment Required

Study of the cargo stowage plan and other ship's papers before the vessel's arrival will determine requirements for special equipment. Tanks, locomotives, and other very heavy lifts may have to be discharged before general cargo. Special cranes, floating or shorebased, may be required to discharge these items. The availability of the floating cranes, the feasibility of their operation, or the positioning of the vessel in order to employ the shore-based crane must be considered in discharging a particular vessel. The battalion commander (through his operations officer) carries the final responsibility in the determination and solution of these problems. It is his responsibility to make arrangements for special equipment to be available when and where needed or to follow through and see that other arrangements are made for discharge before the ship arrives in his operational area.

96. Inland Transportation

It is the responsibility of the terminal battalion commander to coordinate and consolidate the daily requests of his subordinate units for inland transportation for cargo clearance. This transportation in the case of beach discharge will in all probability be highway conveyances. Requests are consolidated and forwarded as directed by the next higher headquarters. It is a further responsibility of the battalion commander to allocate the transportation received to his subordinate units in accordance with requirements.

97. Cargo Clearance

In any type of operation the cargo must be tallied and moved away from the wharf or waterline as rapidly as possible. Within his area of responsibility the commanding officer of the terminal battalion has the same responsibility for segregation and cargo clearance as the terminal commander. See paragraphs 75 and 86 for details.

98. Documentation

The battalion commander's responsibility for documentation is to see that documents (app. II) are properly accomplished by terminal service company personnel and that they are forwarded at the proper time. If the company documentation personnel are working from a central battalion pool, the battalion commander (through his operations officer) is responsible for the correctness of the documentation. Further consolidation of documentation may be accomplished at battalion headquarters for reporting in prescribed form to higher headquarters.

CHAPTER 17

OPERATIONS OF TERMINAL SERVICE COMPANY

Section I. GENERAL

99. Assignment of Vessel to Terminal Service Company

The selection of a particular terminal service company to discharge or load a specific vessel presents little difficulty. After all other requirements for berthing and discharge or loading have been considered and accomplished, the terminal service company which works the particular wharf or one which is available to work at an anchorage will be assigned by the battalion commander to discharge or load the vessel. The assignment of a vessel to a terminal service company for loading or discharge is accompanied by the pertinent papers necessary for either the preparation of a prestowage plan in a loading operation or the manifest, stowage plan, hatch lists, and cargo disposition instructions in a discharge operation.

100. Layout of Company Working Area

The terminal service company commander and his assistants, from their study of the ship's papers, decide upon the technique of the discharge operation. They plan the layout of the company working area in accordance with the type of operation; for example, alongside or offshore discharge. Special cargo gear for different parts of the discharge operation is readied and placed in position so that it will be available when needed. Arrangements are made for landing craft, amphibious vehicles, heavy lift equipment if necessary, and clearance transportation.

101. Composition of Boarding Party

The composition of a boarding party varies with the particular terminal operation. In small operations the boarding party may consist of only the boarding officer (normally the terminal battalion operations officer or the terminal service company commander), who inspects all inbound vessels carrying cargo and/or personnel for discharge. In operations of larger scope requiring terminal command supervision, the boarding party may be composed of all or a number of the following personnel with interests as indicated:

a. Operations Officer. The operations officer determines and reports the general condition of ship's equipment and facilities; delivers pertinent terminal regulations and orders of the terminal commander to the master of the vessel and to the military troop commander; obtains copies of ship's papers (manifest, stowage plan, or passenger list) when advance copies have not been received; determines major damage to or pilferage of cargo; and obtains other information pertinent to discharge of vessel's cargo.

b. Customs Representative. The customs representative checks clearances, narcotics, and weapons, and performs other customs activities.

c. MSTs Representative. The MSTs representative determines from ship's officers the requirements for repair, fuel, stores, etc., and delivers MSTs instructions to the vessel master.

d. Surgeon. The surgeon checks for communicable diseases and sanitary conditions of troop space and facilities.

e. Harbormaster. The harbormaster coordinates matters pertaining to berthing and harborcraft assistance therefor.

f. Ship Platoon Officer. The ship platoon officer coordinates the plans for cargo discharge.

g. Lighterage Unit Representative. Units furnishing lighterage support should provide representatives to coordinate plans.

h. Troop Movement Officer. The troop movement officer coordinates plans for the movement of troop units or casualties.

102. Alteration of Discharge Plan

In a resupply or logistical operation the boarding party can decide during its initial visit and inspection of cargo whether the plan for discharge made before the vessel's arrival must be altered because of unforeseen conditions aboard ship. In the initial unloading for an amphibious assault, any change in discharge plans must be coordinated with and approved by the appropriate landing force commander through his tactical-logistical group. Discharge plans may have to be altered for reasons such as damage to ship's gear, unexpected priority cargo, or extra-heavy lifts which may not have been noted in the ship's papers.

Section II. DISCHARGE OPERATIONS

103. Types of Operations

The types of discharge operations which a terminal service company may be required to perform may consist of any of the following:

a. Wharf-to-Depot Operations. In wharf-to-depot operations the cargo is unloaded from the ship, which is berthed at a wharf, and placed directly on a mode of transportation (truck, rail, or barge) for direct shipment to a depot. The documentation section performs the documentation necessary to move the cargo inland.

b. Discharge in Stream for Lighterage to Wharf to Depot. When discharge takes place in the stream, cargo is discharged from the ship onto various types of lighters. The lighters are brought to a wharf, and cargo is discharged directly onto clearance transportation for direct shipment to a depot or, where necessary, to the temporary storage or cargo segregation area.

c. Discharge Offshore in Beach-to-Depot Operations. In beach operations, the cargo normally is discharged from the ship, which is anchored offshore, into amphibious trucks or landing craft and carried to the beach. At the beach the cargo is transferred to a mode of transportation for direct shipment to a depot.

d. Discharge Onto Sea Island for Movement to Shore Via Aerial Tramway to Depot. In this method of discharging cargo, the cargo is unloaded from the hatch of the ship to a sea island (fig. 20). The cargo is moved ashore via the aerial tramway and is transferred to a mode of transportation for direct shipment to a depot.

104. Relation of Lighterage Units to Terminal Service Company

In discharge operations requiring lighterage of cargo from ship to wharf or ship to shore, lighterage units normally provide this lighterage support to the terminal service company on a mission basis. Supervision of the operation of amphibious vehicles and/or landing craft is exercised by the commanders of those units.

105. Expedients Used in Discharge Operations

In discharge operations terminal service company personnel should constantly improvise ways to expedite the movement of cargo. Some practical expedients are—

a. Where operating conditions are favorable—moderate surf, firm beach, etc.—empty semitrailers may be placed in the landing craft and the cargo may be loaded into the semitrailer at shipside. When the landing craft is beached, the semitrailer may be towed directly from the landing craft to the depot or to the temporary storage or segregation area, thus eliminating a shoreline transfer operation.

b. When barges are used in the discharge operation, stowage of cargo aboard and the movement of the cargo to the hook of fixed or mobile shore-based cranes may present a problem. The use of forklift trucks aboard the barge (fig. 29) and of a crawler crane

alongside a "dried-out" barge (fig. 30) has been found practicable to facilitate operations.

c. Normally, crawler cranes are necessary at the shoreline when cargo must be lifted from landing craft and placed in highway transportation (fig. 31). Surf action, unless protected against, causes sand to wash from under the tracks of the crawler cranes with the result that the crane tips over when picking up a lift. In this type of operation it is helpful to install a wider track on the crane, to operate from a floating platform or a platform fabricated out of sandbags or some other material that will hold against washing action of the surf, or to use a perforated splashboard on the seaward side of the tracks to break surf action and retain sand under the tracks. Crawler cranes must be protected from corrosive action caused by the salt water. A heavy coating of grease and frequent washing down with clear water protect against this danger.

d. Soft sand provides poor traction for wheeled vehicles. Paragraphs 80 and 81 discuss the problems of using vehicles of all

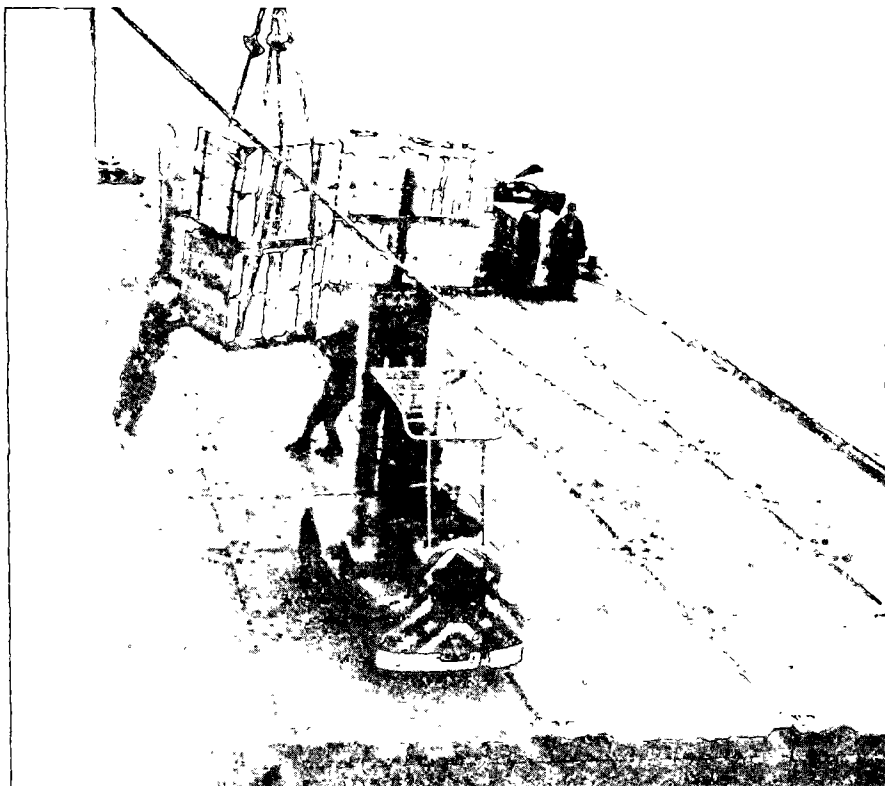


Figure 29. Use of pneumatic-tired forklift truck aboard a pontoon cube barge to remove cargo from under hook.

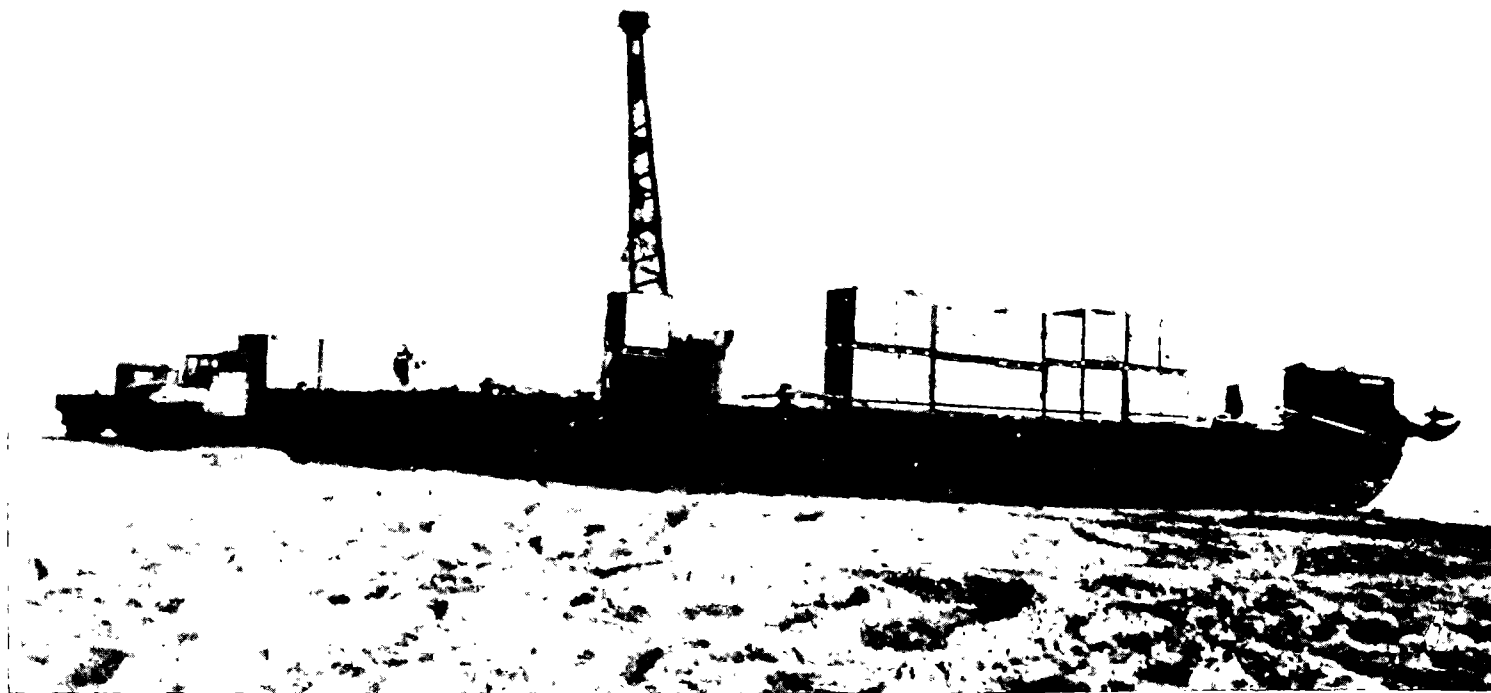


Figure 30. Unloading a pontoon cube barge using trucks and a crawler crane.

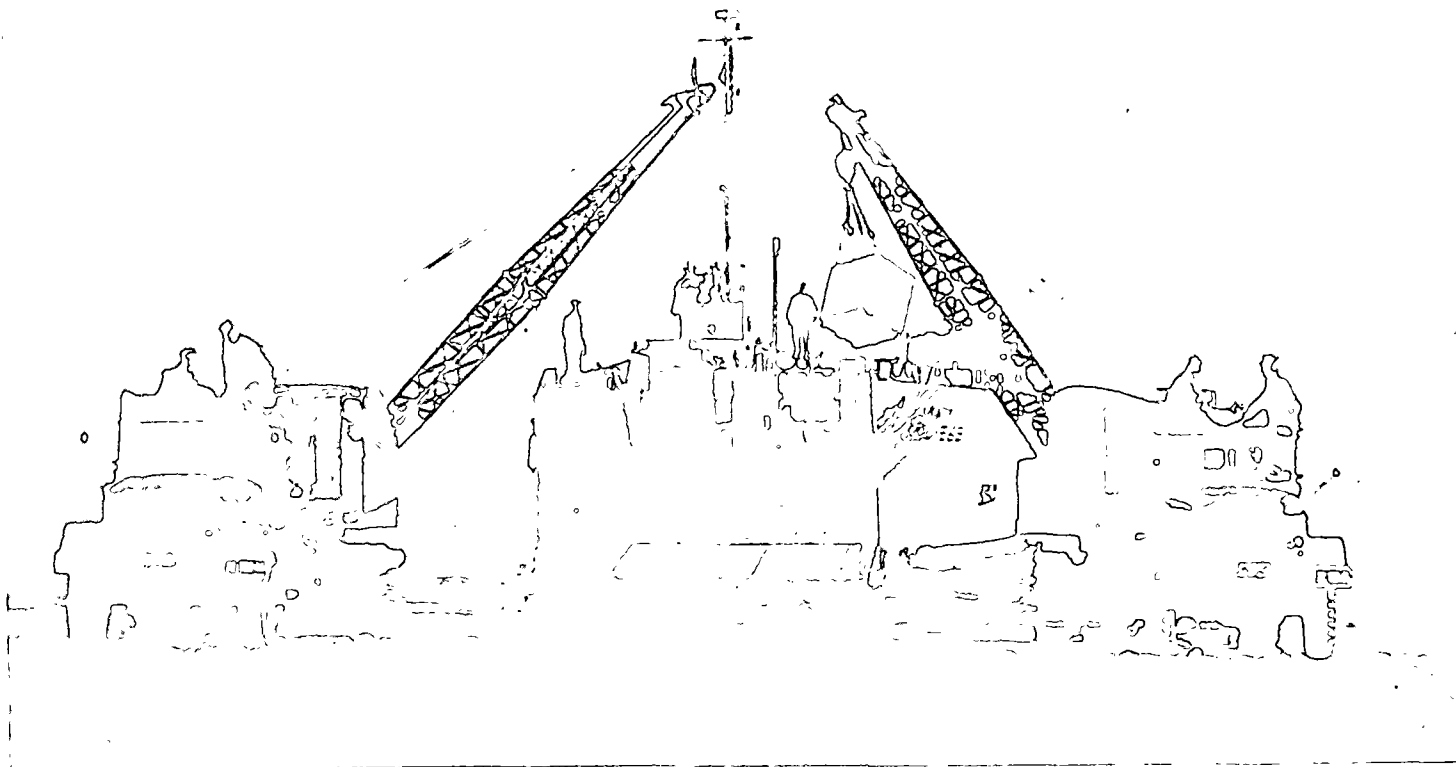


Figure 31. Unloading general cargo from an LCU at a discharge point, using trucks and crawler cranes.

types on beaches. A further expedient which may be useful is a reasonable lessening of air pressure in pneumatic tires. The decreased pressure per square inch facilitates movement in sand.

e. Pontoon causeways, if available, or causeways made of sandbags or other solid material, reaching from the shoreline to the beaching area of large landing craft on shallow beaches will facilitate the discharge of motor vehicles. These causeways will eliminate the possibility of drowning out because vehicles can roll ashore without passing through the water.

f. Each terminal service company operation site should have at least one truck dispatcher when clearance is being accomplished by truck. The dispatcher uses the cargo delivery receipt to back up his dispatch slip, which shows destination of load. He can thus dispatch loaded trucks immediately, saving time and avoiding the congestion which might result if there were only one dispatch point in the battalion area. If movement by convoy is dictated, the formation of the convoy serials is expedited because of the faster rate of dispatch of single vehicles to make up these serials.

106. Segregation of Cargo in Discharge Operations

a. *Routine.* In routine operations when cargo is being cleared from a water terminal to a supply installation, it is segregated only by class, service, and destination. The segregation of cargo by class, service, and destination can, in most cases, be accomplished during the discharge operation. If segregation cannot be accomplished during discharge without slowing up operations, the cargo should be moved to a segregation area, segregated, and cleared as rapidly as possible.

b. *Special Situations.* In special situations, such as when a particular item is placed on the critical item list, the terminal service company may be required to segregate by item to expedite clearance. Normally, such items are moved directly from the discharge area to the using agency by the most expeditious transportation available.

c. *Special Shipments.* Cargo shipped by air or surface express must be expedited by all means available. Segregation by item and destination is often necessary. During the terminal clearance process, special handling is not limited to priority discharge but includes expedited handling of such cargo to the place of use.

d. *Personnel Requirements.* Personnel authorized in terminal service companies are adequate for the segregation of cargo during the discharge operation. However, these units cannot simultaneously discharge cargo and operate segregation and/or temporary storage areas. If circumstances necessitate the establishment of

such an area, the requirements of the task should be carefully evaluated in order to determine the particular unit which should operate the area. The operating unit should contain qualified Transportation Corps personnel in order to insure adherence to transportation doctrine and practices.

- (1) The terminal service company is designed to participate in loading and unloading operations and will seldom be suitable for the operation of a segregation and/or temporary storage area. Such an operation would result in inefficient use of the skills and equipment of the unit.
- (2) The most desirable method of operating the area is to form a terminal operating company from among the teams available in TOE 55-500 (par. 60), selecting the correct proportion of teams having the required materials handling equipment and specialized skills suitable to the particular task. This method permits the size and composition of the unit to be tailored to the requirements of a specific operation.
- (3) Other methods are also possible—the terminal service company operating the area may be augmented; a detachment of a terminal service company may be used; or a terminal operating company may be formed with specialized personnel and equipment and augmented, when the situation permits, with laborers from civilian or military sources.

e. Unitization. Unitization of cargo simplifies segregation. When general cargo is handled in unit loads, cargo transporters (fig. 22), or four-way strapped pallets, it is not necessary to identify and tally individual packages. Thus unitization reduces documentation time and manpower requirements at segregation points.

107. Documentation

The documents used and the documentation of cargo discharged in terminal operations are discussed in appendixes II and III.

108. Special Equipment and Material Used in Stowing and Securing Cargo

a. General. Special equipment and/or material required by the loading terminal in stowing and securing cargo on vessels consists of:

- (1) Lashing material (wire rope, chain, turnbuckles, shackles, clips, tarpaulins, airplane tables, etc.). (Pad eyes which are welded to the vessel are not included.)
- (2) Dunnage (lumber, shoring, blocking, bracing, timbers).

b. Disposition. Because this equipment and material is, in most instances, the property of the United States, special care must be exercised in its discharge, rehabilitation, preservation, and disposition. AR 55-174 covers the disposition of all such equipment and material except that used in the Mutual Defense Assistance Program (MDAP). The disposition of equipment and material used in MDAP is covered in AR 795-17.

Section III. VESSEL LOADING

109. General

Paragraph 77 showed how the movement of outbound cargo was initiated and how the assignment of the loading task to the terminal battalion was made. The terminal battalion commander, after deciding upon a berth or anchorage for the vessel to be out-loaded, assigns the loading mission to one of his terminal service companies.

110. Types of Vessel Loading

Outbound cargo must be loaded so that it may be discharged to meet the requirements at the destination and/or effect maximum utilization of vessel capacities. A discussion of the various types of loading is contained in FM 55-110.

111. Ship's Characteristics

Terminal service companies should maintain a file of ship's characteristics pamphlets for each ship handled. The data for these files must be available before a plan for loading can be started. MSTs, the "Stowage and Capacity Booklet" published by the United States Maritime Commission, or a radio message from the vessel itself are agencies or means of obtaining these data if the company does not already possess it. These data (discussed in detail in FM 55-110) include such factors as—

- a.* Type of vessel.
- b.* Number and size of hatches.
- c.* Capacity and location of cargo booms.
- d.* Bale cubic capacity.
- e.* Dead-weight capacity.
- f.* Weight of fuel, water, stores, etc.
- g.* Estimated deck cargo space.
- h.* Seasonal load draft for the particular voyage.

112. Prestowage Plan

Having been informed in detail of the cargo to be outloaded (par. 77) and having obtained the file of ship's characteristics,

the terminal service company prepares the prestowage plan (FM 55-110) for loading the particular vessel with the cargo indicated. The prestowage plan is presented to MSTS for approval, and upon arrival of the vessel it is presented to the master or his representative for approval. Also upon arrival of the vessel, an inspection of the holds, hatches, and ship's gear is made to see whether there is any unforeseen difficulty in carrying out the loading according to the prestowage plan. If the inspection reveals that the plan as made cannot be followed, changes must be effected before the cargo is moved alongside for loading.

113. Calling Cargo Forward

The prestowage plan as prepared by the terminal service company and approved by the MSTS representative becomes the basis on which to call cargo forward to the terminal area. In calling the cargo forward, the terminal service company commander must consider planned loading time aboard ship and the area available for temporary storage in the event the cargo arrival time and the loading time do not coincide. About 1 day's supply of cargo (never more than 2 days' supply) should be phased into the terminal area before commencement of loading operations to insure continuous loading in case some shippers cannot meet the planned port call dates. Cargo received before the loading time must be stored so as not to interfere with any clearance operation. Having planned for the receipt of the cargo, the terminal service company commander can initiate action for the issuance of port calls.

114. Handling Outbound Cargo in Terminal Area

The terminal service company commander, using the personnel in his company, receives, checks (app. III), and loads the outbound cargo aboard the vessel as planned. Generally, outbound cargo operations of the company are a reversal of the discharge operations. The shore platoons unload the cargo directly from the incoming carrier to the ship's tackle or break out the cargo from the storage area and move it to ship's tackle or to the beach with their materials handling equipment. The ship platoons receive the cargo at ship's tackle, lift it into the holds, and stow it according to the prestowage plan as originally drawn or as corrected after vessel inspection (par. 112).

115. Documentation

Documentation of outbound cargo is covered in appendixes II and III.

Section IV. PERSONNEL MOVEMENTS

116. General

The responsibilities and general principles covering personnel movements are covered in paragraph 76. The terminal service company furnishes personnel to assist the troop movement officer of the terminal command in personnel movements.

117. Debarkation

In debarkation, troops are lined up in passenger list order as they debark from the ship and are individually checked off the passenger list. This is done by terminal personnel with the MSTS representative or a designated member of the military department of the vessel. Other documents relating to the troops are checked during unloading.

118. Embarkation

a. General. When the transport arrives, the terminal service company commander assigned the embarkation mission contacts the military department aboard the transport to verify the number of bunks and cabin spaces available. The final berthing plan is coordinated with the military department of the vessel. Embarkation cards based on this plan are prepared. These are given to each individual as he embarks. Different colors of cards are used to indicate different troop hatches or areas, and markings on the cards indicate the appropriate deck within the hatch or area. Embarkees are instructed to retain these cards until debarkation. The cards may also be used aboard ship for other identification purposes (for example, entry to troop messes).

b. Boarding Procedure.

- (1) Troops are transported to shipside, lined up in passenger-list order, and individually checked off the passenger list as they board the ship. This is done by terminal personnel with the MSTS representative or a designated member of the military department of the vessel.
- (2) After all personnel have embarked, the passenger list is corrected if necessary and a compilation of the unit location aboard ship is made.
- (3) A receipt is obtained from the military department of the vessel for the corrected passenger list and any other documents that relate to the troops. A separate receipt may be given for each document, or an all-inclusive form may be used.
- (4) These receipts, corrected copies of the passenger list, and other documents are turned over to the troop movement officer of the terminal command for further processing.

Section V. OTHER TYPES OF OPERATIONS

119. Transfer Point Operations

The operation of the terminal service company at transfer points is covered in the discussions in paragraphs 5, 6, 37, 38, 39, 75, 86, and 106.

120. Operations with Engineer Amphibious Support Command

The assignment and operation of the terminal service company with the engineer amphibious support command are discussed in paragraphs 37*d* and 38*d*.

121. Operation At Inland Waterway Terminal

The operation of the terminal service company at an inland waterway terminal is essentially a transfer point operation and is covered in the references given in paragraph 119.

PART SIX TRAINING

CHAPTER 18 GENERAL

122. Objective

The final objective of all military training of the units normally assigned to a transportation terminal battalion is to prepare their personnel to function efficiently and expeditiously as a part of the Army team in accomplishing its mission. The units must be able to coordinate their efforts with those of other units while working in any of the various possible operating areas under all types of operating conditions. Army Training Program 55-303 (par. 125a) sets forth three phases of training to accomplish the training cycle considered necessary to achieve this objective. The phases given are basic combat training, advanced individual training, and unit training. Training with units of other branches is called combined training, and is undertaken after completion of the ATP training.

123. Responsibilities for Training

a. Unit commanders are directly responsible for the state of training of their units. However, under the present system of training, they are assisted by outside individuals and organizations in the actual training of the individuals of the units.

b. Basic combat training is accomplished in large training centers. The training center commander is responsible for all training at these centers. However, the fundamentals of basic combat training are continued concurrently with later phases of training which may be the responsibility of the unit commander.

c. Advanced individual training may be conducted in branch schools or troop unit schools.

- (1) *Branch schools.* In special branch schools advanced individual training is the responsibility of the school commandant. Unit commanders, however, are responsible that qualified individuals are selected to fill available quotas for this type of training.

- (2) *Troop unit schools.* Troop unit schools may be conducted

by senior commanders where personnel of similar types of units are trained in groups, or they may be conducted within the individual units themselves. The availability of qualified instructors, number of personnel to be instructed, and the location of units are factors used in determining what type of troop unit school will be conducted. In troop unit schools the commander of the unit conducting the school is responsible for the training conducted in the school.

d. In unit training, unit commanders are responsible for the training of sections and/or platoons within their units. Experience in working with other associated units is normally obtained during training by assigning the unit to a transportation terminal battalion capable of conducting the proper branch training.

124. Cadre Training

a. A properly trained cadre of officers and enlisted men is essential in developing an efficient terminal battalion. Cadre training is continuous. After a soldier has acquired proficiency in his primary MOS, he is trained in another (cadre) MOS. In a general mobilization the terminal battalion may be called upon to furnish several cadres for new battalions. The battalion commander is responsible for insuring that he can furnish competent cadres whenever directed to do so.

b. Upon activation a Transportation Corps unit normally will receive its complete cadre in adequate time to allow for a 30-day training period before the arrival of other personnel. This cadre (TOE 55-116 and TOE 55-117) will consist mainly of experienced leader personnel drawn from similar units that are in an advanced state of training.

c. During the 30-day period commanders train the cadre to qualify as instructors in the unit training program. The cadre is given instructions in teaching techniques, refresher training in weapons, and practical work in instruction.

125. References

a. Guidance in the preparation of training programs and schedules and in the conduct of training is provided in Army training programs (ATP's).

(1) ATP 21-114 is the training program and schedule for conducting the basic combat training of the individual soldier.

(2) ATP 55-303 is the training program and schedule for conducting advanced individual and unit training of the

headquarters and headquarters detachment, transportation terminal battalion; the transportation terminal service company; and the transportation terminal service teams (TOE 55-500).

b. The training proficiency of the units trained under ATP 55-303 is determined by the training test provided in Army Training Test (ATT) 55-5.

c. ATP 21-114, ATP 55-303, and ATT 55-5 contain appropriate references. However, the principles and methods of instruction given in FM 21-5 and FM 21-6 are followed in all training. Lists of motion pictures, television recordings, film strips, and training publications available for training purposes may be found in DA Pams 108-1 and 310-3.

CHAPTER 19

INDIVIDUAL TRAINING

126. Training Objectives

The objective of individual training (basic combat and advanced individual) is to teach the soldier the fundamentals of survival on the battlefield and how to properly perform his TOE duties as a member of a military team.

a. Basic combat training as outlined in ATP 21-114 is planned to train men without previous military experience. It shows them how to adapt to Army life and indoctrinates them in basic military subjects and in the fundamentals of infantry combat. It covers such subjects as—

- (1) Military discipline and courtesy and customs of the service.
- (2) Personal hygiene and sanitation; first aid.
- (3) Supply economy; care and maintenance of equipment.
- (4) Individual protective measures to be taken in the event of CBR attack.
- (5) Interior guard and combat security duties.
- (6) Military intelligence.
- (7) Defense against infiltration, guerrilla warfare, and enemy partisan activities.
- (8) Map reading.
- (9) Principles of concealment, cover, camouflage, and movement.
- (10) Scouting and patrolling.
- (11) Qualification or familiarization with all individual weapons.
- (12) Combat tactics of the rifle squad.

b. Advanced individual training as outlined in ATP 55-303, although divided into two parts, is not presented in separate blocks but is integrated and conducted as a single training phase. It consists of branch and specialist training.

- (1) *Branch training.* The objective of branch training is to provide a general knowledge of the organization, mission, and functions of the Transportation Corps and of the unit to which the individual is assigned.

- (2) *Specialist training.* The objective of specialist training is to qualify the individual to perform the job required by his TOE assignment. Individuals are selected for this training because they indicate potential ability or aptitude or to further develop skills which they acquired before entering military service.

127. Methods of Training

a. Training Centers. Large training centers provide the most economical means, in terms of facilities and instructors, for the mass instruction of large numbers of personnel in basic combat training.

b. Special School Courses. Within the funds available, special school courses provide the most efficient method of advanced individual training for selected personnel in the various TOE job titles in the transportation terminal battalion units. These school courses include—

- (1) Personnel management.
- (2) Advanced Army administration.
- (3) Stenography.
- (4) Cooking.
- (5) Baking.
- (6) Mess management.
- (7) Quartermaster equipment repair supervisor.
- (8) Engineer equipment maintenance.
- (9) Diesel engine repair.
- (10) Power equipment repair.
- (11) Field radio repair.
- (12) Troop information and education.
- (13) Stevedore supervision.
- (14) Blacksmithing.
- (15) Welding.

c. Personnel to Attend. Personnel who should be trained in appropriate special school courses, provided quotas can be obtained, include—

- (1) Battalion sergeant majors.
- (2) Battalion personnel sergeants.
- (3) Battalion personnel administrative supervisors.
- (4) Battalion operations sergeants.
- (5) Battalion information-education specialists.
- (6) Battalion radio mechanics.

- (7) Stenographers.
- (8) First sergeants.
- (9) Mess stewards.
- (10) Cooks (at least one per unit).
- (11) Cargo gear and equipment foreman.
- (12) Engineer equipment mechanics (at least one per company).
- (13) Senior general equipment repairmen.
- (14) Platoon sergeants.
- (15) Document control specialists.
- (16) Packing and crating specialists.
- (17) Welders.
- (18) Blacksmiths.

d. Training Within Units. Training within units normally provides for the advanced individual training of the remaining personnel of the units of the terminal battalion.

CHAPTER 20

UNIT TRAINING

128. Training Objective

a. The general training objective of the unit training period (ATP 55-303) for both the headquarters and headquarters detachment, transportation terminal battalion, and the transportation terminal service company is to produce a unit capable of functioning as a team and qualified to perform its operational mission.

b. The operational mission may include a combat mission as well as the primary missions as spelled out in paragraphs 23 and 35. Both units must therefore be trained to function as a team in a combat mission.

c. All instruction during this period is carried on concurrently so far as practical. As an example, much of the instruction in first aid; sanitation; supply economy; and chemical, biological, and radiological warfare can be given in conjunction with marches, bivouacs, and combat training and during instruction in techniques of fire and combat firing.

129. Headquarters and Headquarters Detachment

As this unit progresses through the unit training phase, it is welded more and more closely into the team which must eventually assume the function of command over other transportation companies. Each of the sections must learn to function as a unit in combat or in its primary mission. Then the sections are drawn together into a complete unit where each functions effectively as a member of the team.

130. Transportation Terminal Service Company

The task of progressively developing a well-coordinated and efficient team is quite complex in the terminal service company. This complexity is due to the greater variety of skills and techniques and the greater number of personnel in the company. Consequently, training requires careful planning and coordination in order to make maximum use of available facilities and time.

131. Training Exercises and Tests

a. The terminal battalion commander should use every opportunity during the unit training period to have his headquarters and

headquarters detachment participate in training exercises, first as a unit and then with other transportation units of the type which may be assigned or attached.

b. The terminal service company commander should likewise use every opportunity to have his company participate in training exercises, first as a company unit and then with the battalion headquarters and headquarters detachment.

c. The unit training period culminates for both the headquarters and headquarters detachment, transportation terminal battalion, and the terminal service company in a 3-day logistical support problem. For details concerning this problem, see ATP 55-303.

132. Postcycle Training

Having completed the cycle of required training (basic combat, advanced individual, and unit training), units of the terminal battalion go into postcycle training. This is that phase of training which repeats, or trains more personnel in advanced individual training and retains effective team effort attained in the unit training phases. During postcycle training, personnel are also cross-trained to fill other specialist jobs within the units.

133. Training Aids

a. Certain training aids are available by requisition placed on training aid centers. More of these training aids will be available for training in common military subjects than in the special subjects required in terminal operations.

b. Specially constructed training facilities (fig. 32) at stations of terminal service units will be required for unit training of these types of units. Some of these special stationmade or specially constructed training facilities are as follows:

- (1) *Land ship*. A land ship rigged with masts, booms, and winches whereby cargo can be lifted and lowered into holds is essential for unit training. Such a facility (1, fig. 32) is shown alongside a marginal wharf (2, fig. 32) on which is located a pier shed (3, fig. 32). With these facilities arranged as shown, the complete wharf operation, including loading and unloading to barge or landing craft, can be accomplished.
- (2) *Winch farm*. A winch farm (4, fig. 32) where winches, masts, and booms are installed is a facility where winch operations, riggers, and signalmen can be trained before taking their places aboard the land ship for the hatch-team operation.
- (3) *Finger pier*. A finger pier (5, fig. 32) of sufficient width

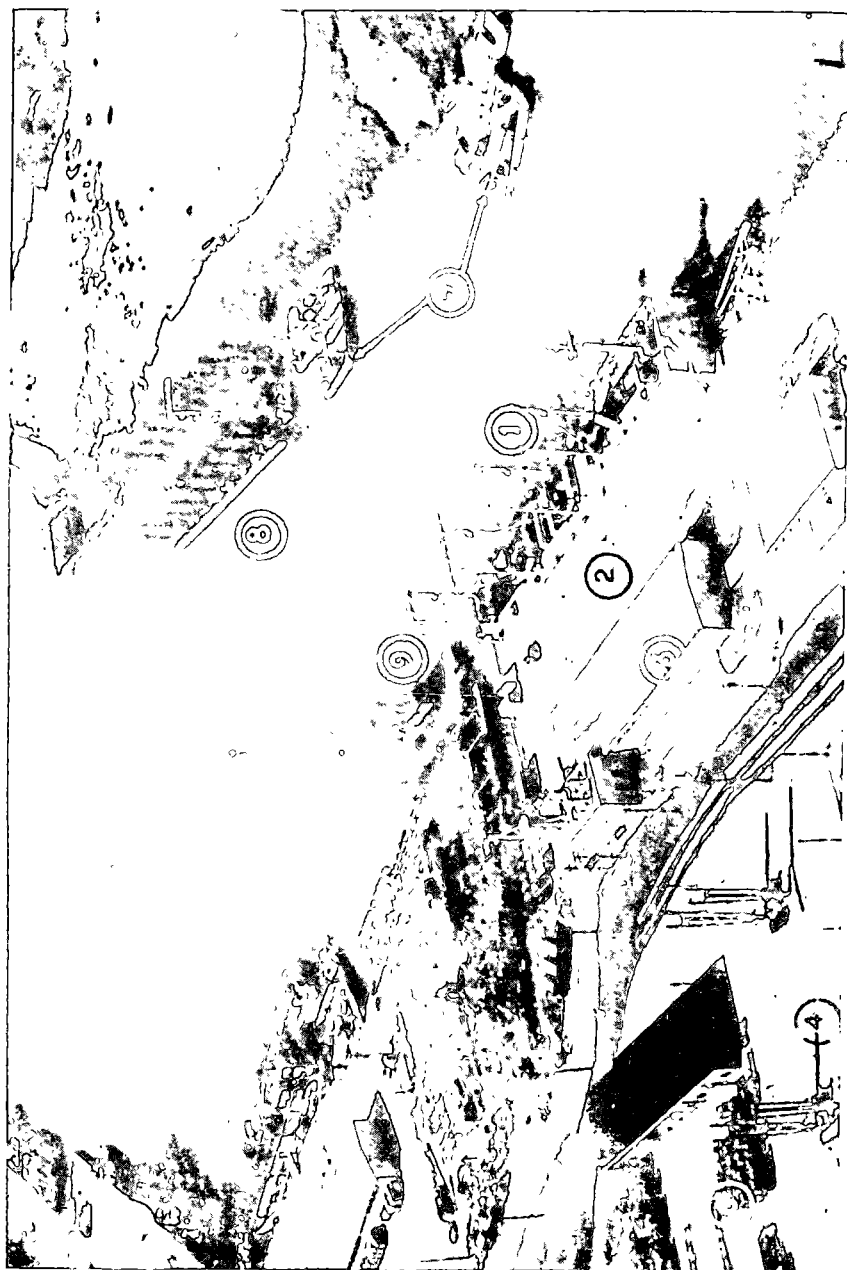


Figure 32. General view of specially constructed training facilities for terminal type units.

and length to accommodate railway trackage and truck traffic and with deep water alongside is most desirable. A large ship can be berthed at such a facility, and practical training on an actual ship can be accomplished.

- (4) *Segregation and/or temporary storage area.* A segregation and/or temporary storage area (6, fig. 32) is another desirable facility so that training in the complete terminal operation can be accomplished.

134. Training With Other Units.

The availability of other types of units with their organizational equipment at unit training sites for terminal battalions is most advantageous during the unit training phase. Landing craft (7, fig. 32), a spud barge (8, fig. 32), and a floating crane (9, fig. 32) are items of equipment essential to the completion of the unit training of the terminal battalion.

APPENDIX I

REFERENCES

1. Field Manuals

FM 21-5	Military Training
FM 21-6	Techniques of Military Instruction
FM 21-30	Military Symbols
FM 21-40	Defense against CBR Attack
FM 21-41	Soldier's Manual for Defense Against CBR Attack.
FM 31-15	Operations Against Airborne Attack, Guerrilla Action, and Infiltration.
FM 55-51	Terminal Commands, Organization and Operations.
FM 55-53	Transportation Amphibious Truck Company
FM 55-110	Transportation Port Companies—Military Stevedoring.
FM 60-5	Amphibious Operations, Battalion in Assault Landings.
FM 60-30	Amphibious Operations, Embarkation and Ship Loading (Unit Loading Officer).
FM 100-5	Field Service Regulations; Operations
FM 100-10	Field Service Regulations; Administration
(O) FM 101-5	Staff Officer's Field Manual; Staff Organization and Procedure.
(O) FM 101-10	Staff Officer's Field Manual; Organization, Technical and Logistical Data.
FM 110-101	Joint Landing Force Manual, Intelligence

2. Technical Manuals

TM 10-402	Mess Management
TM 38-230	Preservation, Packaging, and Packing of Military Supplies and Equipment.
TM 38-705	Army Shipping Document
TM 55-505	Amphibious Truck Driver's Handbook

3. Army Training Programs

ATP 21-114	Basic Combat Training Program for Male Military Personnel Without Prior Service.
ATP 55-303	Army Training Program for Headquarters and Headquarters Detachment, Transportation Ter-

terminal Battalion; Transportation Terminal Service Company; and Transportation Terminal Service Teams JA Through JI.

4. Army Training Test

ATT 55-5 Headquarters and Headquarters Detachment, Transportation Terminal Battalion (TOE 55-116R), and Transportation Terminal Service Company (TOE 55-117R).

5. Regulations

AR 55-19 Marine Casualties
AR 55-172 Ocean Cargo Outturn Report
AR 55-174 Disposition of Equipment and/or Material Used in Securing Cargo (Other Than MDAP) on Vessels.
AR 220-60 Battalions; General Provisions
AR 220-70 Companies; General Provisions
AR 320-50 Authorized Abbreviations
AR 380-5 Safeguarding Defense Information
AR 700-58 Report of Damaged or Improper Shipment
AR 725-55 Oversea Order and Shipping Time
AR 730-8 United States Army, Navy, and Air Force Shipping Designators.
AR 735-5 Property Accountability; General Principles and Policies.
AR 735-10 Principles and Policies; Accounting for Lost, Damaged and Destroyed Property.
AR 735-11 Accounting for Lost, Damaged, or Destroyed Property.
AR 740-15 Preservation, Packaging, and Packing
AR 745-16 Cargo Documentation
AR 747-30 Processing of Unboxed and Uncrated Equipment for Oversea Shipment.
AR 795-17 General Procedures for Furnishing Military Assistance to Foreign Governments on Grant Aid Basis.
SR 55-720-1 Preparation for Oversea Movement of Units (POM).
SR 55-730-10 United States Army, Navy, and Air Force Joint Ocean Shipping Procedures.
SR 320-5-1 Dictionary of United States Army Terms
SR 420-340-1 Packing and Crating
SR 715-55-5 Materiel Inspection and Receiving Report
SR 735-230-1 Allowable Losses in Handling Bulk Petroleum Products.

- SR 746-30-5 Marking of Oversea Supply
- SR 746-30-6 Shipment Digit Marking

6. Tables of Organization and Equipment

- TOE 55-17 Transportation Light Truck Company, Army or Communications Zone.
- TOE 55-18 Transportation Medium Truck Company
- TOE 55-28 Transportation Heavy Truck Company
- TOE 55-68 Transportation Heavy Boat Company
- TOE 55-87 Transportation Aerial Tramway Company
- TOE 55-111 Headquarters and Headquarters Company, Transportation Terminal Command C.
- TOE 55-116 Headquarters and Headquarters Detachment; Transportation Terminal Battalion.
- TOE 55-117 Transportation Terminal Service Company
- TOE 55-121 Headquarters and Headquarters Company, Transportation Terminal Command B.
- TOE 55-131 Headquarters and Headquarters Company, Transportation Terminal Command A.
- TOE 55-137 Transportation Amphibious Truck Company
- TOE 55-147 Transportation Staging Area Company
- TOE 55-500 Transportation Service Organization
- TOE 55-517 Transportation Boat Company

7. Department of the Army Pamphlets

- DA Pam 108-1 Index of Army Motion Pictures, Filmstrips, Slides, and Phono-Recordings.
- DA Pam 310-1 Index of Administrative Publications (Army Regulations, Special Regulations, Department of the Army Pamphlets, Commercial Traffic Bulletins, General Orders, Circulars, and Army Procurement Circulars).
- DA Pam 310-2 Index of Blank Forms
- DA Pam 310-3 Index of Training Publications (Field Manuals, Reserve Officers Training Corps Manuals, Training Circulars, Army Training Programs and Mobilization Training Programs, Programs of Instruction, Army Subject Schedules, Army Training Tests, War Department and Department of the Army Posters, and Firing Tables and Trajectory Charts).
- DA Pam 310-4 Index of Technical Manuals, Technical Regulations, Technical Bulletins, Supply Bulletins, Lubrication Orders, and Modification Work Orders.

DA Pam 310-5 Index of Graphic Training Aids and Devices
DA Pam 310-7 Index of Tables of Organization and Equipment,
Tables of Organization, Type Tables of Distribution,
and Tables of Allowances.

8. Forms

a. Department of Defense.

DD Form 6 Report of Damaged or Improper Shipment
DD Form 46 Report of Survey (Discrepancies Incident to Shipment of Materiel).
DD Form 200 Report of Survey
DD Form 250 Material Inspection and Receiving Report
DD Form 469 DD Ocean Manifest Recapitulation
DD Form 470 DD Cargo Outturn Report
DD Form 485 DD Hatch List
DD Form 486 DD Cargo Stowage Plan EC-2
DD Form 487 DD Cargo Stowage Plan VC2-S-AP3
DD Form 488 DD Cargo Stowage Plan

b. Department of the Army.

DA Form 55-224 Freight Waybill
DA Form 450-5-D Army Shipping Document (Oversea Copy)
DA Form 1663 Dock Receipt (Non-Negotiable)
DA Form 1664 Cargo Delivery Receipt

c. Department of the Air Force.

AF Form 104-F United States Air Force Requisition and Shipping Document (Oversea Copy).

d. Department of the Navy.

NAV S and A Form 700 Navy Bill of Lading

e. Exchange Service.

Form 607 Army and Air Force Exchange Service Shipping Document.

f. Standard.

Standard Form 1103 United States Government Bill of Lading (Original).

9. Miscellaneous Publications

AFM 67-1 United States Air Force Supply Manual
Navy Shipping Guide Weekly Newspaper Publication of the United States Navy.

APPENDIX II

DOCUMENTATION

1. General

Supplies are of little value to a commander unless he can control them, and control is impossible unless he knows the exact amount and location of the various classes of supplies available at any given time. The key to this knowledge is proper documentation. Training of terminal service personnel should stress the fact that one of the most important factors in water terminal efficiency is the ability to deliver properly documented supplies to destination. Large quantities of unidentified, undocumented supplies lying in the terminal area or in depots or lost in transit will not feed troops or keep weapons firing. Documentation must be perfect; nothing less is acceptable.

2. Types of Documentation

a. Supply Documentation. Supply documentation is used by the consignee and the consignor for property accountability purposes. The Army Shipping Document (TM 38-705) and the Air Force Requisition and Shipping Document (AFM 67-1) are examples of supply documents.

b. Transportation Documentation. Transportation documentation is used to accomplish the physical movement of cargo. It is prepared by the consignor or terminal operator for use in processing cargo and by the carrier service to effect delivery to the consignee. Some examples of transportation documentation are the DD Hatch List (SR 55-730-10), the Dock Receipt (Non-Negotiable), DA Form 1663 and the Cargo Delivery Receipt DA Form 1664 (AR 745-16), and the Freight Warrant or Waybill (DA Form 55-224). Transportation documentation serves three main purposes—

- (1) It identifies the shipment en route.
- (2) It is a receipt whenever cargo changes hands.
- (3) It is a basis for payment of transportation charges when commercial modes of transportation are used. The Government bill of lading and freight warrants are examples of this type of transportation documentation.

3. Preparation of Documentation

a. Supply and transportation documentation must be legible and

accurate and must provide transportation personnel with all information necessary to effect the complete movement. It should include—

- (1) Sufficient information for control and identification of shipments at terminal or transfer points.
- (2) Detailed supply information for appropriate technical service agencies to assist in receipting and handling.
- (3) Advice to the consignee that shipment is en route.
- (4) Complete information for payment of transportation charges.

b. Whenever shipments are diverted, reconsigned, or otherwise handled, proper correction and additions must be made to documents. For clarity it may sometimes be necessary to redocument the shipment.

c. The following should be guarded against in the preparation and distribution of documentation:

- (1) Omission of pertinent information required to effect proper movement; for example, incomplete consignee address, failure to specify the modes to be used, or failure to indicate transfer points.
- (2) Illegibility of information entered on the document.
- (3) Improper distribution and/or careless handling, which result in loss or destruction of documents.

d. In overseas theaters when allied or other foreign personnel are used in movement of supplies, documentation in more than one language may be required.

4. Forms Used in Documentation

a. Transportation documentation is based upon the tallies submitted by the cargo checker. Such tallies must indicate the exact quantity, the destination, and the consignee for supplies received into or shipped from the terminal.

b. Dock receipts and cargo delivery receipts prepared by the cargo checker constitute the basis for adjustment of over, short, or damaged cargo and for preparation of documents for further movement of the cargo. It is therefore mandatory that checkers and other documentation personnel be familiar with supply and transportation documents and with the forms listed below.

- (1) *Army Shipping Document (DA Form 450-5-D)*. The Army Shipping Document (ASD), Oversea Copy (DA Form 450-5-D), a supply document, is used primarily for receiving military supplies from depots or other military installations at a terminal for delivery to overseas

installations. The shipping depot is required to forward one copy of the shipping document and one copy of the shipping document recapitulation with the shipment to the water terminal. For detailed information concerning the Army shipping document, refer to TM 38-705 and AR 745-16.

- (2) *United States Air Force Requisition and Shipping Document, Oversea Copy (AF Form 104-F)*. AF Form 104-F is a supply document. It is the Air Force equivalent of the Army shipping document and is processed in the same manner as the Army shipping document (AFM 67-1).
- (3) *Material Inspection and Receiving Report (DD Form 250)*. DD Form 250 is a supply document which replaces the vendor's shipping document. It is used to transmit supplies and equipment from commercial establishments to terminals for delivery to an oversea consignee. It is processed in the same manner as the Army shipping document (SR 715-55-5).
- (4) *Summary of Cargo*. The Summary of Cargo is a supply document which lists by branch or service the total tonnages (both weight and measurement) of major groups of commodities. This document is not required by many receiving terminals, but it must be furnished to MSTs (SR 55-730-10).
- (5) *Navy Bill of Lading (Nav S and A Form 700)*. The Navy Bill of Lading is a supply document required by the Navy. It is processed in the same manner as the Army shipping document (Navy Shipping Guide, part I).
- (6) *Dock Receipt (Non-Negotiable) (DA Form 1663)*. The Dock Receipt is a transportation document used to process outbound cargo through a terminal and to forward supplies to an oversea water terminal (AR 745-16).
- (7) *Cargo Delivery Receipt (DA Form 1664)*. The Cargo Delivery Receipt is used to check cargo discharged from vessels and to forward shipments from a terminal to the consignee (AR 745-16).
- (8) *DD Ocean Manifest Recapitulation (DD Form 469)*. The DD Ocean Manifest Recapitulation is a transportation document. It is a summary of all the cargo loaded by each shipping activity into any one vessel as listed in detail on the manifest sheets (dock receipts) covering such cargo (SR 55-730-10).
- (9) *DD Hatch List (DD Form 485)*. The DD Hatch List is a transportation document. It is not required by many

receiving terminals but must be furnished to MSTs. The DD Hatch List is prepared for each hatch and for each terminal of discharge to supplement the cargo stowage plan for each vessel and shows details and sequence of cargo loaded into each hatch (SR 55-730-10).

- (10) *DD Cargo Stowage Plan (DD Forms 486, 487, and 488)*. The DD Cargo Stowage Plan is a transportation document. It is a diagram of a vessel's cargo space, showing the location in the ship (both on and below deck) of all the cargo loaded. In addition, the cargo stowage plan provides a summary of cargo tonnages to be discharged for each terminal, summary and location of heavy lifts, capacity, and location of ship's booms, remarks on special items of cargo (for example, location and quantity of mail), and cargo of unusual value. The following three cargo stowage plans are standard. (For detailed information on these documents, see SR 55-730-10.)
- (a) Liberty Ship (DD Form 486).
 - (b) Victory Ship (DD Form 487).
 - (c) Other than Liberty and Victory Ships (DD Form 488).
- (11) *Freight Warrant and/or Waybill*. The Freight Warrant and/or Waybill is a transportation document also used to effect movement of cargo from the terminal to an inland destination. It generally is a local form designed to satisfy local requirements; however, DA Form 55-224 (Freight Waybill) can be used as a guide. Local regulations govern the number of copies prepared and their distribution.
- (12) *Cargo disposition instructions (CDI)*. The cargo disposition instructions are explained in paragraph 74.
- (13) *Passenger list (SR 55-730-10)*. The term "passenger list" identifies the complete passenger document. It will contain components and summaries prepared by the shipper and certain recapitulation and cover sheets prepared by the carrier. The passenger list serves the following purposes:
- (a) Identifies the passengers embarked by all shippers at a single port.
 - (b) Establishes the accountability of the carrier for the movement of these individual passengers.
 - (c) Provides basic data for accounting, revenue, and statistical purposes of MSTs, and for reporting purposes.
 - (d) When forwarded to appropriate agencies, it provides information to consignees and other commands concerning passengers being moved in specified ships.

- (14) *Cargo outturn message.* The cargo outturn message is required for cargo carried under shipping contract and berth terms and for cargo which is carried on commercial vessels which are time- or voyage-chartered to the MSTs. It is a brief message report to advise both the MSTs and the shipper terminal of loading about the condition of the cargo upon discharge, including any discrepancies in the form of overages, shortages, or damages between cargo as manifested and cargo as tallied at the end of the ship's tackle. It must be dispatched within 48 hours of completion of discharge (SR 55-730-10).
- (15) *Ocean Cargo Outturn Report (DD Form 470).* The Ocean Cargo Outturn Report is a detailed statement of all discrepancies in the form of shortages, overages, and damage between cargo as manifested and cargo as tallied at the end of the ship's tackle upon discharge. Army Regulation 55-172 prescribes the procedures for preparation of ocean cargo outturn reports which must be submitted by the unloading service within 15 days after completion of the discharge (SR 55-730-10).
- (16) *Ship's departure message.* A ship's departure message must be sent from the shipper terminal to the terminal of discharge (or oversea authority requiring information) within 24 hours after departure of the vessel so that advance planning for the reception, discharge, and ship turnaround may be accomplished. So much of the following information as is pertinent to a single voyage is included in the ship's departure message (SR 55-730-10) :
- (a) Ship's identification and movement.
 - (b) Ship's operation and handling.
 - (c) Ship's capabilities.
 - (d) Special data.
 - (e) Passenger traffic.
 - (f) Cargo traffic.
- (17) *Cargo discharge report.* The cargo discharge report constitutes a notice of exception, a receipt for cargo discharged, and a vessel release. When completed, this form will contain manifested totals, discharge totals, discrepancies, and exceptions developed during discharge. The signature of the master or of a deck officer delegated by the master is required on this report. A copy of the report, authenticated by terminal officials, is retained by the master. Other ship activity messages and certificates are prepared from the cargo discharge report. The car-

rier will be given every opportunity to verify losses or damage by on-the-spot inspection or by a joint survey on board the vessel or in a security locker where damaged or pilfered cargo is held, pending determination of responsibility. Normally, the carrier relies on the terminal tally without joint checking; however, the carrier or his agent will be afforded an opportunity to check cargo jointly with the terminal checkers. Results of a joint check will be reconciled and differences in quantity and condition will be resolved by recount, inspection, or investigation.

- (18) *Reports of Survey (DD Form 200 and DD Form 46)*. Reports of Survey covering lost, damaged, or destroyed cargo are prepared on DD Form 200 (Report of Survey) or DD Form 46 (Report of Survey (Discrepancies Incident to Shipping)), whichever is applicable. For details concerning preparation of Reports of Survey, see AR 735-10 and AR 735-11.
- (19) *Report of Damaged or Improper Shipment (DD Form 6)*. A Report of Damaged or Improper Shipment will be prepared in accordance with AR 700-58.

5. Filing of Documentation

Copies of all documentation received and/or prepared by the documentation section of a terminal service company are placed in a ship's file. The ship's files are the permanent records of all cargo and/or personnel movement with respect to each individual ship and must therefore be maintained until authority for destruction or special disposition has been received. Ship's files are of two categories, inbound and outbound.

a. Inbound Ship's Files. A listing of the documents to be maintained in inbound ship's files may be found in section VIII of the sample SOP, appendix III.

b. Outbound Ship's Files. A listing of the documents to be maintained in outbound ship's files may be found in section IX of the sample SOP, appendix III.

6. Cargo Marking and Documentation

a. Personnel of transportation terminal service companies should be thoroughly familiar with the marking system so that they can expeditiously handle and document cargo received and outloaded.

b. The following markings will normally be found on containers received in oversea water terminals:

- (1) Weight and cubage of container.
- (2) Brief description of the contents.
- (3) Coded oversea address (as modified by SR 746-30-6 and AR 725-55).
- (4) Shipment marking (used by checker to identify the shipment).
- (5) Service color marking.
- (6) Caution labels and other precautionary marking required by law.
- (7) Priority number (when applicable).
- (8) Bill of lading number (when required by contract).

c. SR 746-30-5 is the general reference and explanation for marking oversea supply.

d. SR 746-30-6 is the general reference and explanation for shipment digit marking.

e. AR 725-55 modifies the coded oversea address as outlined in SR 746-30-5.

APPENDIX III

SAMPLE SOP FOR USE BY TRANSPORTATION TERMINAL SERVICE COMPANY FOR MOVEMENT AND DOCUMENTATION OF CARGO AT OVERSEA WATER TERMINALS

--- Transportation Terminal Service Company
APO ----, c/o PM, New York, N. Y.
DATE -----

ANNEX B (Cargo Accounting and Documentation) to Standing Operating Procedure.

Section I. PURPOSE

The purpose of this procedure is to establish policies, assign responsibilities, and outline procedures for receipt, processing, and dispatch of documentation covering all inbound and outbound cargo handled during wartime for oversea water terminal operations other than beach operations.

Section II. SCOPE

The scope includes checking and accounting for inbound cargo discharged from a vessel and documentation requirements for movement of the cargo to final consignee. It covers the checking and documentation of outbound cargo to include the use, preparation, and distribution of cargo documents. This procedure will outline the functions and responsibilities of unit personnel.

Section III. RESCISSIONS

Since this is the first procedure written by the unit covering this subject, there are no rescissions.

Section IV. REFERENCES

AR 55-19	Marine Casualties
AR 55-172	Ocean Cargo Outturn Report
AR 700-58	Report of Damaged or Improper Shipment
AR 725-55	Oversea Order and Shipping Time

AR 730-8	United States Army, Navy, and Air Force Shipping Designators.
AR 735-5	Property Accountability and Responsibility, General Principles and Policies.
AR 735-10	Principles and Policies ; Accounting for Lost, Damaged, and Destroyed Property.
AR 735-11	Accounting for Lost, Damaged, and Destroyed Property.
AR 740-15	Preservation, Packaging, and Packing
AR 745-16	Cargo Documentation
AR 747-30	Processing of Unboxed and Uncrated Equipment for Oversea Shipment.
SR 55-730-10	United States Army, Navy, and Air Force Joint Ocean Shipping Procedures (Short Title, JOSPRO).
SR 420-340-1	Packing and Crating
SR 715-55-5	Material Inspection and Receiving Report
SR 735-230-1	Allowable Losses in Handling Bulk Petroleum Products.
SR 746-30-5	Marking of Oversea Supply
SR 746-30-6	Shipment Digit Marking
TM 38-230	Preservation, Packaging, and Packing of Military Supplies and Equipment.
TM 38-705	Army Shipping Document

Section V. DEFINITIONS

a. Inbound Cargo. Cargo unloaded from vessels by terminal units for subsequent forwarding to inland destinations.

b. Outbound Cargo. Cargo received from consignor depots for shipment via vessel.

Section VI. RESPONSIBILITIES

a. General. The transportation terminal service company is the basic operating unit for the handling and documenting of cargo at oversea terminals. The primary mission of the organization is to load or discharge ships, barges, trucks, and rail cars, concurrently preparing and distributing pertinent documentation and reports.

b. Duties of the Company Commander.

- (1) The commanding officer is in overall charge of all ship and shore operations.
- (2) He assigns ship and shore platoons to vessels or locations as operations dictate.

- (3) He supervises operations to insure accurate and complete compliance with approved procedures.
- (4) He reviews completed vessel files and correspondence pertaining to cargo accounting and documentation.
- (5) He arranges cargo meetings to insure that all personnel are thoroughly indoctrinated in accounting and documentation requirements for inbound and outbound cargo on each vessel.
- (6) He receipts to the master of each vessel for cargo discharged.
- (7) He insures that outturn reports and messages are dispatched within the time allotted.
- (8) He supervises the preparation of investigation, damage reports, and reports of survey. He insures that they are accurate and are submitted without delay.

c. Duties of the Ship Platoon Leader.

(1) General.

- (a) The officer in charge of the ship platoon is responsible for the correct tallying of all Army and Army-interest cargo discharged and/or outloaded on a vessel.
- (b) He maintains liaison between the company commander and the master of each vessel discharged or loaded.
- (c) He contacts the master and/or his chief officer, informs him of terminal policies relevant to discharging (or loading) and checking cargo and, before commencing operations, requests that suitable space aboard the vessel be allocated for use of personnel of his unit who are to supervise cargo checking and to compile necessary reports.
- (d) He familiarizes himself with the ship's manifest, cargo disposal instructions, and stowage plans (or prestowage plans) and maintains liaison with the shore platoon for purposes of settling any problem which may arise concerning the discharging (or loading) of cargo and/or checking.
- (e) He reviews cargo delivery receipts to insure completeness, accuracy, and legibility. He assigns a checker to each working hatch and makes certain each checker is stationed where he may most readily observe cargo to be checked. He makes frequent inspections to insure that checkers are correctly entering on the cargo delivery receipt the markings, description, and quantity of cargo of each lift, together with the general information at the top and bottom of the cargo delivery

receipt which identifies the operation, consignee, etc. When cargo is discharged into a transportation conveyance, he insures that each cargo delivery receipt properly identifies the transportation conveyance by number. He also insures that damaged and/or pilfered cargo is not discharged until properly checked and until the signature of a ship's officer acknowledging exceptions is obtained.

- (f) In loading operations he makes certain that cargo checkers properly accomplish their portions of the dock receipts.

(2) *Security cargo.*

- (a) As security cargo officer, the ship platoon leader is responsible for proper handling of all security cargo discharged.
- (b) He ascertains from advance copies of the manifest or cargo disposal instructions whether or not security cargo is carried aboard an expected vessel.
- (c) When security cargo is expected, he or his representative boards the vessel upon arrival and, by conferring with the master or chief officer of the vessel, agrees upon a time when the security cargo will be discharged.
- (d) At the time of discharge, the security cargo officer or his representative checks the cargo jointly with the chief officer and provides him with an appropriate receipt for the cargo discharged. He also arranges for necessary guards for cargo.

(3) *Cargo inspection.*

- (a) As cargo inspector, the ship platoon leader is responsible for the inspection, investigation, and recording of damaged and/or pilfered cargo discharged by the unit.
- (b) He boards each vessel and makes recurring inspections of each hatch being worked. When he discovers, or is notified of, damaged and/or pilfered cargo, the following action will be taken:
 1. The ship platoon leader personally inspects the immediate area, noting stowage, complete nomenclature, and quantity of cargo missing or damaged.
 2. He notifies the ship's officer on watch and requests him to inspect the damage or pilferage.
 3. He attempts to arrive at a joint report with the ship's officer. This report will include an opinion as to whether or not damage or pilferage occurred at the terminal of discharge and will be based on personal

examination of cargo and hatch, statements obtained from checkers and supervisors, information from the ship's officer regarding voyage and loading, and extract of the ship's log if applicable.

4. If the ship platoon leader and the ship's officer do not agree as to the probable cause, time, and extent of damage or pilferage, each makes and signs a statement of facts and conclusions.
5. The ship platoon leader personally prepares a cargo delivery receipt for damaged and/or pilfered cargo, including a statement regarding the condition of the cargo. He signs the cargo delivery receipt and obtains the signature of the chief officer or his representative. He then assists the shore platoon officer in the preparation of the necessary reports.

d. Duties of the Shore Platoon Leader.

- (1) The shore platoon leader supervises the accomplishment of accounting requirements on cargo discharged and outloaded.
- (2) He insures that outturn reports and messages are dispatched within the time allotted.
- (3) He directs the preparation of and signs bills of lading and other transportation documents.
- (4) He prepares correspondence relative to cargo accounting, outturn reports, claims, and reports of survey.
- (5) He is assigned as custodian of vessel files.
- (6) He supervises preparation of basic outbound cargo documentation.
- (7) He insures that investigations, damage reports, and reports of survey are processed and submitted without delay.
- (8) He is responsible for the safekeeping and documentation of security cargo from the time of discharge from the vessel until receipted for by the carrier or consignee. He maintains records of all such transactions.
- (9) When the consignee is located within the area of the terminal, he notifies cargo consignees of the availability of security cargo and makes every effort to have consignees pick up their cargo from the terminal as expeditiously as possible. If the consignee is located inland, he will take necessary action to arrange for the proper guarding of the shipment while it is en route to consignee.

e. Duties of the Documentation Control Supervisor (Appendixes 1 and 2).

- (1) The documentation control supervisor maintains cargo delivery receipt and dock receipt registers, numbers cargo delivery receipts and dock receipts, and directs their issue to checking personnel.
- (2) He maintains bill of lading and other transportation document registers.
- (3) He closely supervises discharge accounting activities aboard the vessel and ashore.
- (4) He reviews each vessel file, insuring that it is reconciled or that action is taken to adjust discrepancies.
- (5) He audits outturn reports for completeness and accuracy.
- (6) He assists receiving agencies in locating lost cargo and determining overages and shortages.
- (7) He maintains a log of completed and corrected outturn reports.
- (8) He checks all outgoing correspondence relating to cargo documentation for correct assembly and distribution.
- (9) He directs the preparation of the ocean manifest, ocean manifest recapitulation, prestowage plan, stowage plan, hatch list, and ship departure message.
- (10) He insures that transportation documents are properly processed and are ready for signature of the shore platoon officer.
- (11) He assembles data for reports of survey and other required reports.
- (12) He assigns clerks to tasks in accordance with workload demands.

f. Duties of Cargo Checker. The cargo checker is under the direct supervision of the ship platoon leader while checking aboard the ship and under the supervision of the shore platoon leader while checking on the wharf or in the warehouse area. He has the following duties:

- (1) He checks by personal observation and tallies each item discharged from a vessel or outloaded from the wharf area on a cargo delivery receipt (inbound) or dock receipt (outbound).
- (2) He expeditiously prepares neat, legible, and understandable cargo delivery receipts.
- (3) He and the hatch foreman determine in advance how and in what sequence cargo is to be discharged.
- (4) He ascertains that incoming or outgoing cargo is properly marked and documented.

- (5) He concentrates particularly on the digit marking on the box and places this marking on the cargo delivery receipt, along with other pertinent data.
- (6) He presents completed cargo delivery receipts or dock receipts to the accounting clerk at times requested.

Section VII. GENERAL CARGO TRAFFIC INFORMATION

a. Cargo Disposition Instructions. When advance cargo documentation on a particular ship is received by the communications zone headquarters, cargo disposition instructions are made available to the terminal service company before the ship's arrival. Information on modes and availability of transportation also is provided the company commander by higher headquarters. If advance documents are not received, the company commander (or his representative) upon boarding the vessel must obtain copies of the ocean manifest and dispatch them to the communications zone headquarters so that disposition instructions may then be issued.

b. Cargo Booking and Planning. Cargo destined for outbound shipment is booked by the consignor with the terminal operations office in coordination with the company commander. A prestowage plan may be prepared by the terminal operations office of a higher headquarters and sent to the company for guidance in loading the vessel. Release of the cargo to the terminal area should be controlled by the company commander in coordination with transportation movements personnel who effect liaison with the booking agency.

c. Report of Shipment (REPSHIP).

- (1) When forwarding inbound cargo, the terminal service company should send a report of shipment to the receiving agency (through transportation movements channels, if available) advising—
 - (a) Date of shipment.
 - (b) Rail car, barge, or truck number.
 - (c) Commodity.
 - (d) Number of pieces and weight.
 - (e) Routing.
- (2) This may be accomplished by the most expeditious means available. In each instance the same information will be forwarded to higher headquarters for planning and traffic control purposes.

Section VIII. INBOUND CARGO

a. Advance documents covering cargo on a particular vessel normally are received by the unit from higher headquarters. These

documents include the ocean manifest, the ocean manifest recapitulation, the hatch list, the stowage plan, and the cargo disposition instructions.

b. A cargo documentation meeting is held by the unit commander with ship and shore platoon officers, hatch foremen, cargo checkers, and documentation section personnel. Details of cargo discharge accounting and documentation are planned for special cargo, general cargo, and vehicles, based on the modes of transportation available for the operation. All personnel will become thoroughly familiar with the cargo disposition instructions and the stowage of the cargo. The documentation section personnel will become acquainted with the cargo listed on the manifest, noting digit markings and any peculiarities that might affect the accounting and documentation process.

c. The manifest (dock receipts) is separated according to technical service and by hatch so far as possible. As cargo delivery receipts are prepared by the checkers, the accounting clerks reconcile them with the proper dock receipt. The separation of the manifest expedites and facilitates the posting and reconciliation of the dock receipts.

d. A cargo delivery receipt register is maintained by the documentation control supervisor. Cargo delivery receipts are numbered before the cargo checkers use them, and each one must be accounted for. Pads or blocks of cargo delivery receipts are issued to the cargo checkers as required during the discharge operation.

e. Upon arrival of the vessel, the ship platoon officer arranges for necessary space on the vessel where the accounting clerks may operate. Normally, the cargo accounting clerk and three assistant clerks comprise this team. The manifest, already separated, is arranged for posting discharge figures.

f. The checker in the hold tallies the cargo being discharged, using cargo delivery receipts. A separate receipt is required for all of the cargo loaded into a conveyance for each consignee. When the cargo delivery receipt is used to cover a single transportation unit, each sheet is annotated with the digit marking in the digit control number column. The package number, which is the fourth part of the digit marking, is placed on the receipt in the tally column. Any cargo found damaged or pilfered is covered by a separate cargo delivery receipt made up by the cargo inspection officer, with complete data listed thereon. It is signed by both the inspection officer and the ship's officer.

g. Cargo delivery receipts prepared in the hatch are normally made in three copies. The No. 2 copy goes to the accounting clerks

on the vessel for posting to the manifest and shipping documents. The No. 1 and No. 3 copies accompany the cargo to the shore. In a barge or amphibious truck operation the No. 1 copy serves as the waybill and the No. 3 copy is used as a pile tag by shore checkers. In a ship-to-wharf operation, the distribution is the same except that the No. 1 copy also goes to the wharf outloading checker. If cargo is moved from ship to truck, barge, or amphibious truck for direct shipment to the depot, four copies of the receipt are normally made. Distribution is as follows:

- (1) No. 1 copy to carrier for use as a waybill.
- (2) No. 2 copy to accounting clerks.
- (3) No. 3 and No. 4 copies with the cargo to the depot. The depot will retain the No. 3 copy and sign and return the No. 4 copy to the documentation section as a receipt for the cargo.

h. Cargo delivery receipts prepared at the in-transit area are made in four copies. Distribution is as stated in *g* above. Rail freight warrants, based on the No. 2 copy of the receipt, are prepared by the documentation section. The completed freight warrant, backed by the No. 1 copy of the receipt, is placed in the rail car before its movement from the terminal area.

i. As vessel discharge progresses, completed cargo delivery receipts are collected from the checkers every hour or every 2 hours, as the situation dictates, by an accounting clerk. The totals of cargo discharged, including damages and exceptions, are posted on the appropriate dock receipt. The digit marking listed on the cargo delivery receipt is the key to this operation. The package number in the digit marking is posted to the dock receipt by striking through the corresponding number on the receipt. The numbers of missing packages are circled on the dock receipt.

j. Upon completion of discharge, a summary by technical service of cargo discharged is accomplished on the cargo discharge report. When completed, this form contains manifested totals, discharge totals, discrepancies, and exceptions developed during discharge. The cargo discharge report constitutes a notice of exception, a receipt for cargo discharged, and a release for the vessel. The signatures of the master or his representative and of the unit commander are required on the cargo discharge report. The carrier can verify any discrepancies noted and, if possible, differences are resolved by recount, inspection, and investigation.

k. The outturn message, reflecting data required by article 312, SR 55-730-10, is dispatched to the terminal of loading within 48 hours after completion of discharge.

l. The accounting clerks audit the posted dock receipts against the cargo delivery receipts to verify accuracy of original posting and computation of totals. Overages and shortages in line items are offset and cross-referenced when sufficient evidence exists to justify the action. Rail, barge, truck, or other carrier documents covering the movement from the shore to the depot are posted by simple annotation on appropriate dock receipts. As the depot-receipted cargo delivery receipts return, comparisons are made with the original cargo delivery receipts to check out every item on the manifest. Totals developed from this posting and comparison are used to reduce or eliminate discrepancies.

m. The ship's file now contains the following papers:

- (1) Ocean manifest (dock receipts).
- (2) Stowage plan.
- (3) Hatch list.
- (4) Cargo delivery receipts (No. 2 copy).
- (5) Depot receipt tallies (No. 4 copy).
- (6) Cargo discharge report.
- (7) Outturn message.
- (8) Miscellaneous data, such as damage reports, estimate of damage, and security cargo receipts.

n. *Outturn Report.*

- (1) Discrepancies remaining after completing reconciliation of the manifest (dock receipts) and cargo delivery receipts are transcribed to the outturn report, DD Form 470. Discrepancies are entered according to line item of the ship's manifest and include shortages, overages, damage, pilferage, and cargo discharged but not manifested (AR 55-172 and SR 55-730-10). In the event to damage to or loss of cargo caused by the carriers, and investigation is conducted by the cargo inspection officer in company with the master of the vessel or the ship's officer, and a detailed statement indicating the circumstances and acknowledging responsibility for damage or loss by the carrier is signed by both representatives. Copies of the statement and the report of investigation accompany the outturn report to the loading terminal as evidence for processing claims against the carrier.
- (2) Shortages stated in the formal outturn report may not be greater than those indicated by the cargo delivery receipt made at the hatch regardless of subsequent tally figures. Overages may not be less. However, shortages indicated by the hatch tally may be reduced where the warehouse

or outloading cargo delivery receipt or the receipt from the depot indicates that the missing cargo was outloaded from the terminal area or received at the depot.

- (3) The outturn report is forwarded within 15 days after the vessel has completed discharge and is prepared in 8 copies. Distribution is in accordance with SR 55-730-10.

o. Upon completion of the outturn report, the terminal unit advises the consignees of recorded shortages as reflected by the discharge records in order that the consignees may complete the audit of their shipping documents and close out the transaction with documents properly supported by cargo delivery receipts, outturn report, or report of survey.

p. Corrections to the outturn report are prepared when corrected manifests or supplementary manifests which change original figures are received from the loading terminal.

q. Berth term cargo is covered by a Government bill of lading. A memorandum copy of the bill of lading is received from the terminal of loading before arrival of the vessel. Upon arrival of the vessel, cargo is checked in the normal way and documented in the same manner as general cargo. If any discrepancies incident to shipment exist, the outturn report covering the berth term cargo is accompanied by a Report of Survey (Discrepancies Incident to Shipment of Materiel), DD Form 46, in accordance with AR 735-10 and AR 735-11. This action serves to hold the carrier liable for shortages, damages, or pilferages.

Section IX. OUTBOUND CARGO

a. Outbound cargo is normally assigned to the terminal unit by higher headquarters, such as the terminal battalion. When cargo is authorized for movement to a water terminal, it is assigned a cargo booking number by the appropriate higher headquarters. The cargo booking number identifies the shipment so that it may be received by the terminal unit and indicates the vessel upon which the shipment is to be outloaded.

b. Each transportation unit should arrive in the terminal accompanied by one copy of the Army shipping document and a recapitulation copy. The receiving checker will not accept a shipment that is not covered by a cargo booking number without special permission from the shore platoon officer.

c. Cargo must have proper markings as defined in SR 746-30-5, SR 746-30-6, and AR 725-55. Cargo arriving improperly marked or without markings will not be shipped until the technical service

depot or representative concerned makes necessary corrections or additions.

d. Cargo received for outloading is physically checked and tallied, by package number when appropriate, against the shipping document accompanying each transportation unit or shipment. The extra copy of the Dock Receipt (Non-Negotiable) (DA Form 1663) is used when shipping documents are not immediately available or when the shipment is split or contains mixed cargo that cannot be readily checked against the shipping documents. When a complete shipment is split, each piece should be clearly marked and appropriate information annotated on each dock receipt.

e. A port reference number is assigned by the receiving checker to each shipment in a transportation unit as it is received, and this number is placed on the shipping documents accompanying and/or applying to the shipment. This number identifies the shipment as it is processed through the water terminal and appears on the ocean manifest. A master register of port reference numbers is maintained by the documentation section, identifying cargo by the cargo booking number, shipper, credit voucher (Army), shipping ticket (Air Force), bill-of-lading number (Navy), carrier, receiving area, and date of receipt. Blocks of these numbers are issued to the cargo checker as necessary.

f. Upon arrival of a transportation unit in the receiving area, a checker is assigned to tally cargo. He will—

- (1) Verify data on the freight warrant (rail shipments) and inspect seals to determine whether they are intact or broken or have numbers different from those shown on the bill of lading or the freight warrant. Condition of seals is noted on the Army shipping document or dock receipt and on the freight waybill.
- (2) Locate shipping documents accompanying shipment.
- (3) Assign a port reference number to each shipment or consolidation of shipments.

Note. Separate shipments from a single transportation conveyance will be physically consolidated to the maximum extent practicable according to terminal of discharge, service, and class of supply. When a shipment is received in two or more transportation conveyances, consolidation will be effected when practicable. Care will be exercised to insure that the documentation section is furnished necessary information pertinent to all consolidations of shipments by means of adequate notation on the tallied documents.

- (4) Check the shipment and sign the shipping documents or dock receipts, checking the number of pieces received. Date, wharf, location, and discrepancies are recorded on the shipping documents. When the shipment is undoc-

umented, the checker prepares a dock receipt for each shipment ((3) above). All identifying data are placed on the dock receipt, including the oversea address, which is placed in the appropriate blocks, and the digit mark, which is placed in the marks column. Only one copy of the dock receipt is made out during this check.

- (5) When feasible, mark each pallet board or large piece of cargo with the port reference number, using a lumber crayon.
- (6) Forward all copies of shipping documents, dock receipts, bills of lading, freight warrants, truck waybills, and barge waybills to the documentation section.

g. The manifest clerks will—

- (1) Register the documents in a master control register.
- (2) Check shipping documents and/or dock receipts for completeness and accuracy.
- (3) Prepare dock receipts (full sets) for all cargo received.
- (4) Forward the signed Army shipping document recapitulation to the terminal command technical service representative as notification of arrival of the shipment.
- (5) Accomplish bills of lading or other similar documents, using the shipping document. The original bill of lading or freight warrant is accomplished to show actual property received, together with any exception as to loss or damage. The original bill of lading is then submitted for settlement, if applicable. Annotation of any loss or damage will state value of property, repair costs if known, and value of salvage.
- (6) Prepare the dock receipt as outlined for duties of the receiving office (AR 745-16).
- (7) Make distribution of the dock receipt as follows:
 - (a) No. 1—hold in suspense.
 - (b) No. 2—for contractor's file (if used).
 - (c) No. 3—attach to bill of lading.
 - (d) No. 4—to pier for preplanning.
 - (e) Nos. 5 and 6—extra copies for internal use if necessary.
 - (f) No. 7—to inbound checker for use as a pile card.

h. When cargo is physically loaded aboard the vessel, the pile card (No. 7 copy of the dock receipt) is used to tally cargo into the vessel. The cargo checker will—

- (1) Locate the pile card (No. 7 copy of the dock receipt) and use it to record the actual count of the cargo as it is loaded onto the vessel.

- (2) Note any discrepancies as to count or condition of cargo at time of loading.
 - (3) Make a thorough check of the immediate vicinity if shortages are evident and report discrepancies to the shore platoon leader.
 - (4) Upon completion of loading of cargo listed on the pile card, forward the pile card, fully annotated as to count, condition of cargo, stowage location, and item number indicating order of loading to hatch to the manifest clerk for further action.
- i. Upon receipt of the pile card copy of the dock receipt, the manifest clerk will—
- (1) Check the documents for completeness and accuracy.
 - (2) Reconcile the original (No. 1 copy) dock receipt with the pile card and annotate with the following information:
 - (a) Loading point.
 - (b) Vessel name or number.
 - (c) Date stowed.
 - (d) Name of checker.
 - (e) Quantity and type of package(s) loaded.
 - (f) Weight and cube loaded.
 - (g) Stowage location.
 - (h) Remarks.
 - (3) In loading ammunition, enter lot number under description column for all shipments except small-arms ammunition.
 - (4) In loading vehicles enter USA number under description column.
 - (5) Enter transporter serial number in the commodity and package number column.
 - (6) Reproduce the No. 1 copy of the dock receipt as pages of the manifest in the number of copies required by schedules listed in SR 55-730-10 (JOSPRO).
 - (7) Collate the No. 1 copies of the dock receipt to form the ocean manifest, grouping the pages separately by class, service, and destination.
 - (8) Prepare the hatch list (for each terminal of discharge when known), obtaining information from the No. 7 copy of the dock receipt and from the periodic hatch report. The hatch list will reflect—
 - (a) Hatch number.
 - (b) Name and voyage number of vessel.
 - (c) Stowage location.

- (d) Quantity and type of packages.
 - (e) Consignee.
 - (f) Weight and cube.
- (9) Prepare the stowage plan from the No. 7 copy of the dock receipt and from actual observation of the loading.
- (10) Prepare an ocean manifest recapitulation, summarizing all cargo loaded for each shipping activity. The following items are required:
- (a) Status of vessel. (If chartered, give type of charter.)
 - (b) Listing, with dimensions, of heavy lifts and bulky, odd-sized, or odd-shaped materials by stowage and destination.
 - (c) Listing of hazardous cargo by stowage and destination.
 - (d) Total cargo (long tons and measurement tons) loaded for each service and each port of discharge (dunnage and lashing gear not included).
 - (e) Grand total (long tons and measurement tons) of cargo loaded.
 - (f) Listing of security cargo.
 - (g) Disposition instructions for Government-owned dunnage and lashing gear.
 - (h) Signatures of company commander and vessel's master.
- (11) Prepare a summary of cargo as follows:
- (a) *For Army and Air Force shipments.* This summary is prepared on a sheet the same size as the manifest sheet and is placed directly in back of the ocean manifest recapitulation. It is a listing by branch of service of total tonnages (both weight and measurement tons) of major groups of commodities, plus any items which do not fall under a given general classification. Marine cargo, showing weight and measurement tons, is listed separately by branch of service.
 - (b) *For Navy shipments.* The same summary is made as for Army and Air Force shipments, except that the total tonnage is broken down among categories captioned general, special, bulk, refrigerator, ammunition, or airplanes.
- (12) Distribute completed documents in accordance with article 310, SR 55-730-10, insuring that the documents due to accompany the vessel are aboard before the vessel sails. Receipts for these documents are distributed as required within 24 hours after vessel departure.
- (13) Prepare and dispatch within 24 hours a ship departure

message (in accordance with articles 501 to 507, SR 55-730-10) indicating the following:

- (a) Ship identification and movement.
- (b) Ship operational and handling information.
- (c) Ship capabilities.
- (d) Special data.
- (e) Passenger traffic information.
- (f) Cargo traffic information.

j. Outbound documents described in *h* above are prepared concurrently with the loading of the vessel. The shore platoon officer insures that the completed shipping documents and tallies are channeled to the manifest clerks promptly.

k. Permanent vessel files are maintained by voyage number and will include—

- (1) Ocean manifest (dock receipts).
- (2) Ocean manifest recapitulation sheet.
- (3) Stowage plan.
- (4) Hatch list.
- (5) Receipts for documentation.
- (6) Copy of ship departure message.
- (7) Outturn message and report received from terminal of discharge.

l. An outturn message should be dispatched from the terminal of discharge within 48 hours after completion of cargo discharge. This message states whether over, short, or damaged cargo (OSOD) was found or whether the cargo arrived in good order (CAGO). If the message indicates that the cargo arrived in good order, the vessel file may be closed. If the message indicates that discrepancies exist, an outturn report should arrive within 15 days after the completion of discharge of the cargo. Upon arrival, the outturn report is evaluated by the clerks concerned to determine whether an arithmetical error occurred or whether the cargo listed as over or short was or was not loaded in error. Where damage is listed, a determination is made as to condition of cargo at loading. If no discrepancies are evident, a certificate to the effect that the cargo was loaded without exception and in the quantities listed on the manifest is prepared by the shore platoon leader and signed by the company commander. This certificate, copies of which are attached to all but one copy (file) of the outturn report, is forwarded to the Military Sea Transportation Service office having jurisdiction over the vessel so that claims may be initiated against the carrier. If an error is discovered by the clerks, such as a mistake in addition or failure to load cargo, a manifest correction reflecting the true loading figures is prepared and forwarded to the

terminal of discharge. Followup correspondence requesting outturn information is made when no report is received within 15 days.

Section X. ACCOUNTING FOR LOST, DAMAGED, OR DESTROYED CARGO

a. The Report of Survey, DD Form 200, is prepared by the unit as follows:

- (1) When loss, damage, or destruction occurs during movement of cargo to the water terminal via military transportation.
- (2) When loss, damage, or destruction occurs in areas under control of the water terminal and is not attributable to contract handlers of cargo.

b. The Report of Survey (Discrepancies Incident to Shipping), DD Form 46, is prepared by the unit as follows:

- (1) When loss, damage, or destruction occurs during movement of cargo to the water terminal via commercial or contract transportation.
- (2) When discrepancies are discovered in berth term cargo. (The report of survey accompanies the outturn report covering the cargo.)
- (3) When loss, damage, or destruction is ascertained to be the result of negligence in handling by contract stevedores and/or longshoremen.

c. The Report of Damaged or Improper Shipment, DD Form 6, is used in reporting shipments received showing unsatisfactory preservation, packaging, packing, marking, loading, stowage, and handling at previous installations. DD Form 6 is not used to report overages, shortages, improper documentation, claims, or shipment of incorrect materials. For example, DD Form 6 would be used to report vehicles improperly lashed aboard a vessel, resulting in damage en route to the water terminal. DD Form 6, complete with exhibits and photographs, is distributed as directed by AR 700-58 and implemented by higher headquarters.

d. Damaged cargo removed from vessels is not shipped until disposition instructions and a release are received from the technical service depot concerned. Costs of damage and repair should be obtained from the depot promptly so that the costs may be included in the outturn report. If damage is confined to the case, bag, or container and the actual cargo is not damaged, the cargo

will be recoopered and forwarded without awaiting special disposition instructions.

/s/ Little
LITTLE
Capt

APPENDIXES: 1—Organization of Documentation Section for
Inbound Cargo.
2—Organization of Documentation Section for
Outbound Cargo.

APPENDIX 1 TO ANNEX B TO SOP

ORGANIZATION OF DOCUMENTATION SECTION FOR INBOUND CARGO

1. Organization

a. *Section Headquarters.*

- (1) Chief documentation clerk (in charge).
- (2) Documentation clerk.

b. *Manifest Section.*

- (1) Senior cargo accounting clerk (in charge).
- (2) Cargo accounting clerk.
- (3) Manifest clerk.
- (4) Assistant manifest clerk.

c. *Audit Section.*

- (1) Cargo accounting clerk (in charge).
- (2) Assistant cargo accounting clerk.
- (3) Assistant documentation clerk.

2. Duties

a. *Section Headquarters.*

- (1) Chief documentation clerk is documentation control supervisor.
- (2) Documentation clerk acts as administrative clerk. He processes and/or accomplishes rail bills of lading freight warrants, and waybills.

b. *Manifest Section.*

- (1) Prepares ocean manifest for discharge accounting.
- (2) Reconciles documents and vessel files.
- (3) Prepares bills of lading or freight warrants.
- (4) Checks cargo delivery receipts returned from depots.

c. *Audit Section.*

- (1) Audits vessel files not reconciled.
- (2) Prepares outturn messages and reports.
- (3) Maintains accounting liaison with depots.
- (4) Prepares reports of survey.
- (5) Maintains documentation files and correspondence.

/s/ Little
LITTLE
Capt

APPENDIX 2 TO ANNEX B TO SOP ORGANIZATION OF DOCUMENTATION SECTION FOR OUTBOUND CARGO

1. Organization

Same as for inbound cargo (appendix 1).

2. Duties

a. Section Headquarters. Same as for inbound cargo (appendix 1).

b. Manifest Section.

(1) Prepares ocean manifest, ocean manifest recapitulation, bills of lading (berth term shipments only), and ship departure message.

(2) Reproduces and distributes documents.

c. Audit Section.

(1) Prepares prestowage plan, stowage plan, and hatch list (drafting experience advisable).

(2) Evaluates outturn reports from terminals of discharge.

(3) Maintains documentation files and correspondence.

/s/ Little
LITTLE
Capt

APPENDIX IV

MOVEMENT TABLES

Section I. INTRODUCTION

Because of the many sites at which the headquarters and headquarters detachment, transportation terminal battalion, and the transportation terminal service company may be employed, frequent moves may be required. These moves may be by rail or ship, by organic and/or other motor transportation, or by a combination of several modes of transportation. SR 55-720-1 requires unit commanders in the continental United States to maintain a current set of movement tables at all times. Oversea commanders will undoubtedly set forth local regulations which will state their particular requirements as to what forms of movement tables will be required. These local requirements, however, will closely resemble the general format shown below. Movement tables are generally prepared and maintained by the unit supply sergeant. Data which are contained in TOE, in various supply manuals, or in technical manuals or which are obtained by counting, packing, weighing, and measuring items of equipment are used in the preparation of the tables. Changes in TOE or the issue of substitute items of equipment will require constant review and/or revision of the tables to keep them current. Each mode of transportation in which the unit may move will require a particular set of data. For example, small items of equipment may be packed together for a move by ship, whereas these items could be loaded in organizational transport if a highway move were to be made. The following sections are examples of the types of data that must be maintained in movement tables.

Section II. IMPEDIMENTA TAT (MEE)

<i>Item</i>	<i>Quantity</i>	<i>Combined cubs (less packing material) (cubic feet)</i>	<i>Combined weight (less packing material) (pounds)</i>
Mask, protective, field	175	110	265
Tool set, repair, gas mask, universal	1	1	4
Blacksmith equipment, No. 1, engineer	1	115	1,120
* * *	*	*	*
Flashlight, MX-991/U	14	2	14
Telephone set, TA-43/PT	2	2	20
Total	493	950.1	6,955.6
Total (including packing)		1,210.0	9,750.0
Total bill of material for packing and crating equipment listed above—			

<i>Item</i>	<i>Total quantity</i>
Lumber, 1 by 8 inches	1,644 lineal feet
Lumber, 2 by 4 inches	250 lineal feet
Nails, common, 8d	50 pounds
* * *	* *
Cover, envelope, packing list	50 each
Cloth, burlap, 36 inches	100 yards
Barrier material, paper	2 rolls

Section III. ORGANIZATIONAL EQUIPMENT

<i>Item</i>	<i>Quantity</i>	<i>Combined cube (less packing material) (cubic feet)</i>	<i>Combined weight (less packing material) (pounds)</i>
Decontaminating apparatus, portable, 3-gallon.	3	9	45
Kit, chemical agent, detector	1	6	40
Respirator, paint spray	2	0.5	1
* * *	* *	* *	* *
Cargo set, timber handling, in gearbox.	1	56	1,037
Cargo set, vehicle handling, in gearbox.	<u>1</u>	<u>132</u>	<u>2,850</u>
Total	165	3,364.3	51,973.5
Total (including packing)		4,250.0	59,800.0
Total bill of material for packing and crating equipment listed above—			

<i>Item</i>	<i>Total quantity</i>
Lumber, 1 by 8 inches	7,974 lineal feet
Lumber, 2 by 4 inches	190 lineal feet
Lumber, 2 by 6 inches	110 lineal feet
* * *	* *
Cover, envelope, packing list	50 each
Cloth, burlap, 36-inch	200 yards
Barrier material, paper	4 rolls

Section IV. ORGANIC VEHICLES

<i>No.</i>	<i>Item</i>	<i>Item weight (pounds)</i>	<i>Combined weight (pounds)</i>	<i>Item cube (cubic feet)</i>	<i>Combined cube (cubic feet)</i>
1	Crane, revolving trac- tor-mounted, 7,500-lb. capacity.	4,000	4,000	636	636
2	Crane, shovel, crawler, 10-ton, ¾-yard.	35,885	71,770	1,450	2,900
1	Crane, shovel, crawler, 40-ton, 2-yard.	45,300	45,300	2,625	2,625
* * *	* * *	* *	* *	* *	* *
2	Truck, forklift, gaso- line, 2,000-lb.	4,450	8,900	177	354
7	Truck, forklift, gaso- line, 6,000-lb.	9,020	63,140	704	4,928
4	Truck, forklift, gaso- line, 10,000-lb.	<u>18,000</u>	<u>72,000</u>	<u>1,600</u>	<u>6,400</u>
Total			488,414		38,649

Total bill of material necessary for blocking and bracing the organic vehicles for a rail move—

<i>Item</i>					<i>Total quantity</i>		
Lumber, 2 by 4 inches					438 lineal feet		
Lumber, 2 by 6 inches					160 lineal feet		
Lumber, 2 by 12 inches					48 lineal feet		
*	*	*	*	*	*	*	*
Cable, steel, ½-inch diameter					500 feet		
Turnbuckles, 12 inches					300 feet		
Turnbuckles, 18 inches					150 feet		
Wire, annealed, black, No. 8					300 feet		

17.2

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

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

Official:

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

Distribution:

Active Army:

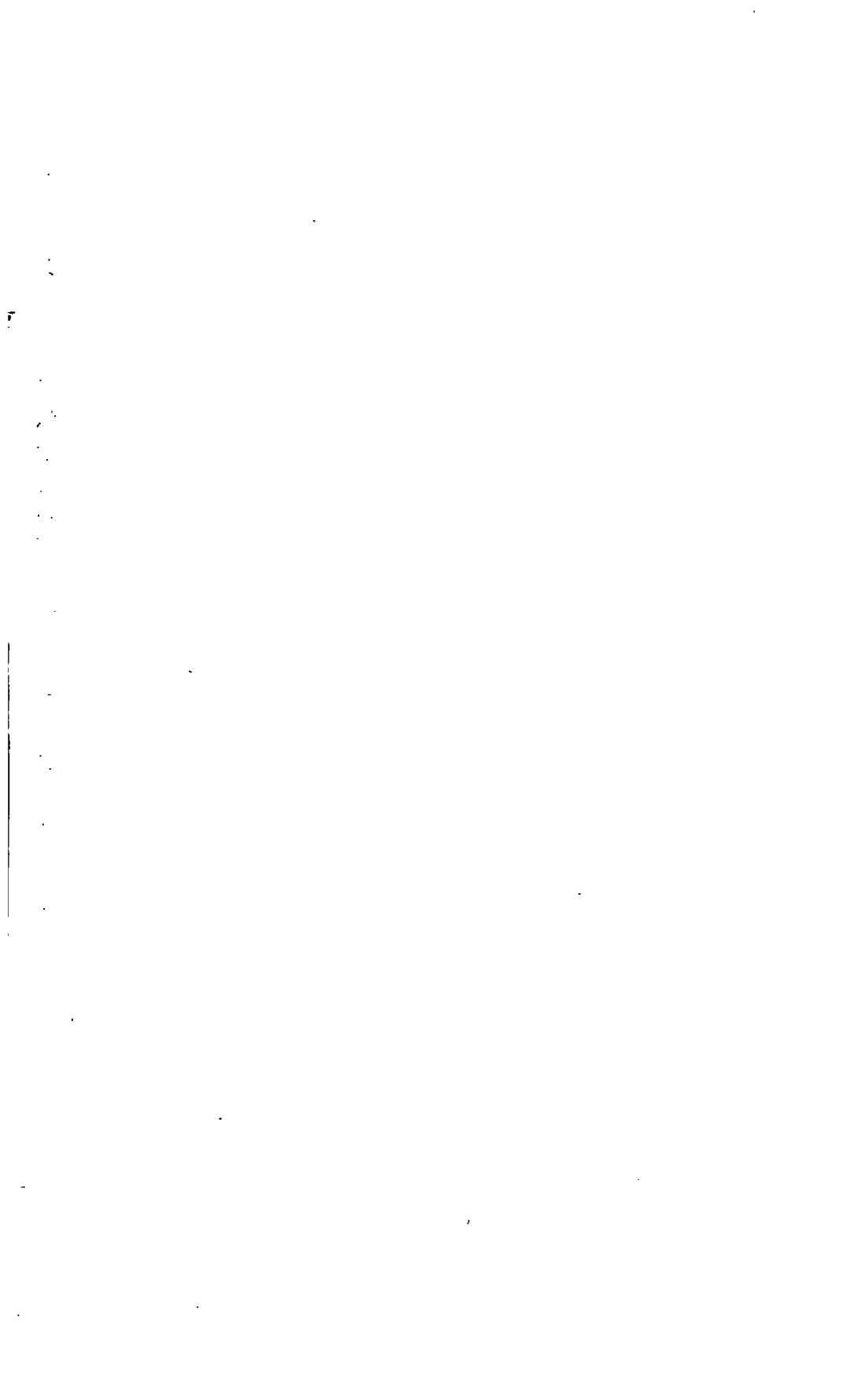
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NG: State AG; units—same as Active Army.

USAR: Same as Active Army.

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

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