THE ARMY'S CARGO FLEET

IN

WORLD WAR II

283/2

Monograph #18, prepared by
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Army Service Forces
May 1945

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
MAY 1945		**-**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Army's Cargo Fleet in WWII	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **Army Center of Military History,103 Third Avenue,Fort Lesley J. McNair,Washington,DC,20319**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT
Topics include growth and composition, conrol, types of vessels, deployment and utilization, and operational aspects

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**		**211**	

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THE GROWTH AND COMPOSITION OF THE FLEET

In September 1939 the Army owned only two freight transports, the MEIGS and the LUDINGTON. Additional cargo space was available on the six combination (freight and passenger) ships which then constituted the remainder of the Army-owned transports. Any shipping requirements in excess of the total capacity of these eight vessels had to be met by the use of chartered space.

During the fall of 1939 the Army's cargo requirements for the overseas possessions increased sharply, making it necessary to authorize "a considerable number of commercial shipments". Accordingly, the Office of the Quartermaster General sought to obtain an additional cargo vessel from the U. S. Maritime Commission.[1] To meet this need, on 7 December 1939 the United States Maritime Commission transferred the LIBERTY on a loan basis to the United States Army.

Expansion, 1940-41

The demand for additional cargo space continued unabated during the calendar year 1940. The Army transport fleet was unable to carry the entire load, with the result that part of the overseas freight had to be shipped on commercial vessels. In August 1940 the Quartermaster General appealed for funds to construct four new Army transports, in

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1 See Memorandum of 9 October 1939 by Capt T. J. Weed, Water Transport Branch, OQMG, subject, "Additional Cargo Requirements for F. Y. 1940," File QM 541.2 T-W.

furtherance of the national defense program.[2] No such construction, however, materialized at this time.

The exchange of the fifty American destroyers for the Atlantic bases in September 1940 added appreciably to the burdens of the Army Transport Service. It was necessary not only to man and to supply the new outposts but also to carry out considerable new construction requiring the shipment of both materials and equipment from the United States. Fortunately, late in the same year, the Army obtained four more freighters from the Maritime Commission, which were redesignated as the JOHN R. R. HANNAY, the WM. R. GIBSON, the IRVIN L. HUNT, and the WILL H. POINT.[3] The chartering of the CHIRIKOF and the ETOLIN also provided some measure of relief. Nevertheless, as of October 1940 the Office of the Quartermaster General estimated that an additional twelve transports were required during the next year in order to enable the Army transport fleet to handle a total load of approximately 15,000 troops and 200,000 measurement tons of cargo.[4] Of these twelve vessels it was contemplated that six should be passenger and freight transports and that six should be freight transports. In November 1940

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2 See letter of 23 August 1940 from the Secretary of War to the Advisory Commission to the Council of National Defense, AGO File 571.4.

3 Although transferred late in 1940, these four vessels were not acquired formally until 5 February 1941. The Army assumed the cost of reconditioning each vessel.

4 See Memorandum of 2 October 1940 from Lt. Col. C. H. Kells, OQMG to the Assistant Chief of Staff, G-4, subject "Procurement of Additional Transports," QM File 571 T-W-A (Army Transports).

the "acute situation" of the Army with respect to water transportation was the subject of special consideration by the Acting Assistant Chief of Staff, G-4 (Brig. Gen. E. Reybold), who recommended, among other things, that funds be secured to purchase one freight approximately the size of the LIBERTY, and to charter other freighters (possibly four) for temporary use as needed. Subsequently, in December 1940 the President approved a program of the Secretary of War, which provided the necessary funds.[5]

Throughout the fateful year 1941 the Army's cargo space continued to expand through the acquisition (1) of ships to be employed primarily as freighters; and (2) of combination vessels, which, in addition to transporting troops, also carried some cargo.[6] As in 1940, the Maritime Commission was the principal agency through which additional tonnage was secured. Acquisition was by purchase or charter. As of 30 April 1941, there were ten freighters in the service of the Army.[7] By 7 December 1941 the Army's vessels of this type had increased to 27, of which 12 were owned, one (the LIBERTY) was held on loan, and 14 were bareboat chartered.[8]

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5 For details see G-4 File 29717-41.

6 The major emphasis in this study will be placed upon vessels used primarily as cargo carriers. However, it must be remembered that Army troopships almost always transport some cargo.

7 Including one chartered vessel, the SILVERADO. See inventory prepared by Water Transport Branch, OQMG, 30 April 1941.

8 From data supplied by Water Division, OCT.

As early as April 1941 the Army Transport Service faced a difficult situation with respect to meeting the increased demand for passenger and freight service both in the Atlantic and in the Pacific. In the Atlantic the supply of the new Caribbean bases brought new burdens, to which were added the requirements occasioned by American occupation, first, of Greenland and, next, of Iceland. However, it was in the Pacific, in particular, that the pressure became serious, for there, wrote Colonel T. H. Dillon, Chief of the Transportation Division, OQMC, "with the old, slow vessels of the Army Transport Service we were attempting to transport large numbers of troops and a great amount of cargo to Hawaii and the Philippines."[9] Moreover, since March 1941 certain Army transports, notably the MEIGS and the LUDINGTON, were engaged in returning critical cargo such as rubber to the United States, thus lengthening the turnaround.

The transfer of several Army transports to the Navy in the spring and summer of 1941 served to accentuate the problem, for although these were troop transports, all of them had some cargo space. The Maritime Commission, at the direction of the President, allotted certain vessels[10] to the Army as replacements for those transferred to the Navy. Nevertheless, as Colonel Dillon observed, cargo requirements of the Army in the Pacific were in excess of the capacity of the available transports, and

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9 Memorandum of 3-4 July 1941 from Col. T. H. Dillon for Assistant Chief of Staff, G-4.

10 Notably, the PRESIDENT TAFT, PRESIDENT CLEVELAND, PRESIDENT PIERCE, and PRESIDENT COOLIDGE of the American President Lines.

commercial operators had therefore been called upon to carry 15,000 tons of cargo for July 1941, with the prospect of an increase during the following months.

Under these circumstances cargo vessels were generally procured for a specific purpose and area, and frequently on a charter basis, to satisfy an immediate need. Thus, during April 1941, when shipments of construction material to Alaska had become unusually large, the Army was forced to charter three ships to supplement the regular transports serving this area.[11] Throughout 1941, increased construction activity at various bases in the pacific and the Atlantic by the Construction Division, OQMC, and the Corps of Engineers (as well as by the Navy) required considerable cargo space on Army vessels.

By way of illustrating the difficulties that arose with regard to the Corps of Engineers, it may be noted that, during the spring of 1941, the District Engineer at San Francisco was charged with having attempted to circumvent the Office of the Quartermaster General (as traffic manager for the War Department) by arranging directly for the commercial shipment of lumber to Hawaii. Continuation of this procedure, said the Quartermaster General, "will engender competition, congestion, and probably increased cost."[12] On the other hand, the Office of the Quarter-

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11 See Memorandum of 29 April 1941 from Lt. Col. C. H. Kells to Colonel T. H. Dillon.

12 Memorandum of 7 March 1941 from the Quartermaster General to the Assistant Chief of Staff, G-4. File QM 545.02 T-W-C (Clevedon).

master General, took cognizance of the special interests of the Corps of Engineers by completing arrangements in October 1941 to charter the SS HALEAKALA for the use of the District Engineer at Honolulu in developing airfields on certain island bases in the Pacific.[13]

A few examples may serve to illustrate the expansion of the Army's cargo fleet which took place in the eleven months of 1941 preceding the Japanese attack on Pearl Harbor. On 17 February 1941 the ELI D. HOYLE (ex-REDWOOD), a small vessel of 1,793 gross tons, was acquired at a cost of $57,000. Although she carried some personnel, the ELI D. HOYLE was utilized principally as a cargo ship sailing from Seattle to various destinations in Alaska. On 30 September 1941, the Army acquired an additional freighter on bareboat charter for the Alaska run, the AMERICAN STAR (5,354 gross tons). At about the same time (12 September 1941) a small tanker of 2,702 gross tons, the GEORGE F. DOWNEY (ex-LAKE MIRAFLORES) was purchased at a cost of $335,000 for use in Alaskan waters. This tanker is still in Army service (April 1945).

For Atlantic service, in July 1941, through the Maritime Commission, the Army acquired on bareboat charter the small freighter SICILIEN (1,654 gross tons). Built at Elsinore, Denmark, in 1938, this was one of several Danish cargo vessels seized by the United States Government in the summer of 1941.[14] Also for use in the same geographic area, in the fall of 1941 the Army purchased through the Maritime Commission the

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13 Cf. Memorandum of 28 October 1941 from Lt Col. C. H. Kells to the Chief of Engineers. File QM 571 T-W-C, "Army Vessels."

14 Subsequently, the SICILIEN was lost by enemy action in the Caribbean on 7 June 1942.

three small ships of the "Poker Fleet," so designated because of their names--ACE, KING, and JACK. Owned by the Terminals and Transportation Corporation of Buffalo, New York, these refrigerated steamers (Laker type), of approximately 2,600 gross tons,[15] cost the Army $320,000 each. For Army use they were made into combination dry and refrigerated cargo ships, for which there was then "an urgent need."[16] Originally coal burners, all three ships were later converted by the Army into oil burners and subsequently gave good service on various missions. The ACE, renamed the M. G. ZALINSKI, and the KING are still in operation, but the JACK was torpedoed without warning and sunk on 27 May 1942, while en route from Ponce, Puerto Rico, to New Orleans.[17]

During the summer and fall of 1941 the Office of the Quartermaster General was constantly in the market for both freight and passenger vessels to meet the needs of the Army. The Daily Activity Reports of the Water Transport Branch, Transportation Division, OQMC, contain frequent entries for this period concerning the acquisition of such vessels. On 30 September 1941, for example, it was reported by this Branch that "the S. S. NORTH PACIFIC has been chartered for the Seattle-Alaskan Service."[18] Chartering in various forms--bareboat, time, voyage, space--

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15 Gross tonnages: ACE, 2,616; KING, 2,624; JACK, 2,622.

16 See Inspection Report of 10 December 1941 from Lt. Col. C. H. Kells to the Quartermaster General, File QM 333.82 T-W-C, "Travel Report."

17 Memorandum for File, Navy Department, Office of the Chief of Naval Operations, Op-16-8-5, 23 June 1942.

18 The NORTH PACIFIC, ex-INISKIN, is still in Army service.

was a frequent and necessary practice in order to handle the increasing volume of overseas shipments. Thus, on 3 December 1941, in the Daily Activity Report of the Water Transport Branch, it was noted that authorization had been given for "60,000 to 80,000 cubic feet plus full deck space" on the COAST TRADER.[19] Four days later when the war broke, the Water Transport Branch (Transport and Freight Operations Section) was in the midst of negotiating for additional cargo space.

Developments after 7 December 1941

Following the attack on Pearl Harbor, the Japanese struck quickly at American shipping. The freighter, CYNTHIA OLSON, operated by the Army under bareboat charter, evidently was torpedoed and sunk on 7 December 1941. On that date the vessel, which was en route to Honolulu, sent out distress signals following the sighting of a submarine, and was heard from no more.

The MALAMA, which arrived at Honolulu on 9 December, left one week later with miscellaneous Army cargo for Manila, and then disappeared--apparently captured by the Japanese. Eight other freighters carrying Army cargo in the Pacific on 7 December 1941 succeeded in reaching port, either in the United States or in Australia.[20]

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19 The COAST TRADER, a freighter of 3,286 gross tons, was owned by the Coastwise Line of Portland, Oregon.

20 For details see report of May 1944 prepared by Historical Branch, Control Division, San Francisco Port of Embarkation, entitled "Shipping Situation at San Francisco Port of Embarkation Following Pearl Harbor."

USAT LUDINGTON

In war as in peace this cargo transport has given faithful service to the Army.

For the time being the two Army-owned cargo transports in the Pacific (the MEIGS and the LUDINGTON) successfully eluded the enemy, but not without many anxious moments. The veteran MEIGS was diverted to Australia, there to find temporary refuge. Chief concern of the Army, however, was the LUDINGTON, which was then on the way to the Philippines, via Christmas and Canton Islands. On 3 December 1941 the Army Chief of Staff, General George C. Marshall, sent a brief note to the Chief of Naval Operations, Admiral Harold R. Stark, concerning the vessel, which carried a valuable cargo, including some twenty P-40 pursuit planes. The importance of getting these planes to Manila "at the earliest possible moment" made General Marshall feel that he should "accept the hazard of an unescorted voyage from Canton," rather than await a Navy convoy. Nevertheless, he asked what Admiral Stark would suggest. The latter promptly replied that "it would seem best, all things considered, for the LUDINGTON to proceed independently via Torres Straits." The ship, he added, "probably would be in no more danger proceeding alone, and perhaps even less, than she would be waiting without protection at Canton Island." En route to Canton Island when the war broke, the LUDINGTON turned back and sailed along the Equator via Panama and Mazatlan, reaching Los Angeles safely on the morning of 23 December 1941.

In the Atlantic there were isolated sinkings during the early part of 1942, but the activity of enemy submarines did not become intensive until the spring and summer of that year. Despite the arming of the vessels and the convoy system, the Army Transport Service suffered

numerous losses, for which replacements were absolutely necessary in order to meet the current demand. By 14 July 1942 such losss had become so serious that Colonel C. H. Kells, Executive, Water Division, Transportation Service, Washington, D. C., requested the War Shipping Administration to "make available to the Army at an early date, twelve (12) new C-2 vessels on the West Coast, and six (6) new C-2 vessels on the East Coast." These vessels, said Colonel Kells, were to be allocated to the Army and to be manned and operated as Army transports.[21]

From 1942 to the present, additional cargo ships for the Army have been obtained almost entirely through allocations by the War Shipping Administration. That agency in turn has secured additional ocean tonnage either by requisitioning privately owned vessels or from new vessels built by the Maritime Commission. Since the ship construction program of the Maritime Commission has accounted for progressively larger numbers of the cargo carriers in the service of the Army, it may be of interest to note here the principal types of vessels that fall within this category.

Vessel Construction by the Maritime Commission

The building program of the United States Maritime Commission antedates by several years the American entry into the current conflict. Created in 1936, the Maritime Commission almost immediately set out to revive America's languishing merchant marine by constructing a fleet

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21 File 561.1 "Army Vessels." The vessels requested evidently were not obtained by the Army.

of 500 fast cargo and passenger ships, at the rate of 50 ships per year over a period of ten years. The advent of the war in Europe accelerated the program long before the United States became involved.

As early as 11 September 1941, in a memorandum for Colonel T. H. Dillon, Chief of the Transportation Division, OQMC, Lt. Col. C. H. Kells of the Water Transport Branch, noted that the Maritime Commission then had "under schedule for early completion and commissioning, a number of excellent cargo vessels." Of these new craft, Colonel Kells thought that the Army Transport Service could use four vessels, two to operate in the Pacific and two in the Atlantic. This modest suggestion was a forerunner of the increasingly heavy reliance that the Army was to place upon ships built by the Maritime Commission. When early in 1942 the full impact of the war upon the shipping resources of the nation became evident, the only significant change was that, while the Maritime Commission continued to build the ships, the new War Shipping Administration was made responsible for their operation.

In addition to such standard designs as the C1, C2 and C3 types,[22] the Maritime Commission has built and made available to the Army through the War Shipping Administration, two other significant cargo types, namely, the Liberty and the Victory ships. The cargo ships constructed by the Maritime Commission as a whole have played so important a part

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22 The C4 type is not included among the cargo vessels here mentioned, since it has been used by the Army primarily as a troopship, although the Maritime Commission C4-S-B1 type originally was intended to carry armored tanks. The only freighter of the C4-S-B1 type employed by the Army is the MARINE EAGLE. The C5 type has been excluded since to date no use has been made of it by the Army.

in the Army's cargo operations that a brief discussion of each type may not be amiss. Except when otherwise noted, the following statements are based upon data supplied by the Maritime Commission, supplemented by available information as to the use made by the Army of each particular type. It should be added that certain of the types mentioned below were intended originally for peacetime traffic and that the exigencies of war have entailed various modifications.

C1 Cargo Ships

According to the Maritime Commission,[23] the C1 type was designed to meet the need of efficient and economical cargo transportation on trade routes not requiring "excessive speed" and upon which large cargoes would "not be continuously available." They are among the smaller cargo ships being constructed by the Maritime Commission.[24] They are both steam and diesel propelled, and their normal speed is 14 knots. There are two variants of the C1 type, namely the C1A and the C1B; the former has an overall length of some 413 feet, while the latter--the larger of the two with respect to deadweight tonnage--has an overall length of some 418 feet.

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23 Cf. the useful pamphlet published by the U. S. Maritime Commission in 1940, entitled "New Ships for the Merchant Marine."

24 Somewhat smaller are the C1-M-AV1 type, diesel propelled cargo vessels which have a steel hull, an average overall length of 339 feet, and a deadweight tonnage of approximately 5,010. Still smaller are the N3-M-A1 coastal type vessels designed for general cargo purposes, of which a number recently were converted into Port Repair Ships.

As examples of C1 cargo ships in the service of the Army on 30 June 1944 may be mentioned the CAPE GORWIN, CAPE DIAMOND, and CAPE HORN, all C1a vessels each carrying approximately 11,000 measurement tons of cargo. As of the same date the C1B type was represented by the ALCOA POINTER with a cargo of 11,800 measurement tons, and the CAPE ANN and the CAPE MAY, each with a cargo of approximately 11,000 measurement tons.[25] On 31 March 1945 the Army had in its service 40 cargo ships of the C1 type.[26]

C2 Cargo Ships

This type was selected by the Maritime Commission as "the most urgent replacement required by the American merchant marine." Designed for general cargo purposes, these are 15.5 knot vessels, with an overall length of some 459 to 469 feet, a cruising radius of 16,200 miles, and steam propulsion. Among the variants of this design, the deadweight tonnage ranges from approximately 9,000 to 11,000. The living quarters for officers and crew are above the average in improvements, and the vessels themselves carry on the romantic traditions of the clipper ship era by bearing such historic names as the FLYING CLOUD, LIGHTNING, and STAG HOUND.

As examples of C2 cargo ships in the service of the Army on 30 June 1944 may be noted the AFRICAN DAWN and the AFRICAN SUN, each of

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25 A number of the C1B type vessels in Army service--notably the CAPE MEARES--are predominantly troopships although they do carry some cargo.

26 Monthly Progress Report, Transportation, OCT, ASF, March 1945, p. 50.

which then carried 15,200 measurement tons of cargo. Other C2 types of that data were the WESTWARD HO, the HIGH FLYER, and the WHITE SWALLOW, each transporting some 13,700 measurement tons of cargo. On 31 March 1945 the Army had in its service 43 cargo ships of the C2 type.[27]

C3 Cargo Ships

The C3 type was designed for general cargo use. This vessel has a speed of 16.5 knots, and a deadweight tonnage ranging from approximately 10,000 to 13,000. There are several variations of this design. Vessels of the C3-S-A2, C3-S-A4, and the C3-S-EH1 types have the same overall length of 492 feet, but the deadweight tonnage ranges from approximately 11,000 to 13,000. Another variant, the C3-S-A3 (E) type, has an overall length of 473 feet and a deadweight tonnage of 9,902.

The C3 type was produced to meet the need of a vessel with greater deadweight cargo capacity and greater speed than the C2 type. On 31 March 1945 the Army had only eight C3 cargo ships as compared with twenty-two C3 troopships.[28]

EC2 Liberty Ships

The familiar Liberty ship (EC2 type) is the mainstay of the dry cargo fleet constructed by the Maritime Commission. This is an emergency type which according to Admiral Land was developed from "a proved

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27 Ibid., March 1945, p. 50.

28 Ibid., March 1945, p. 50.

British design, readily adaptable to mass production methods."[29] It was designed for reciprocating steam engines, which were more readily available than other types of engines, and for which experienced operating personnel presumably could be obtained without undue difficulty. The Liberty ship has the following characteristics: length overall, 442 feet, gross tonnage 7,176, speed 11 knots. It lacks the refinements of the standard C-type vessels. The hull and equipment of Liberty ships have been standardized as much as possible so that both large and small mills and plants can keep a continuous flow moving toward the yards. If production lags at one plant, it can be made up at another.

Originally, according to Admiral Land, it was estimated that Liberty ships could be built and put into service within six months. Contracts were let in March 1941 for the first 200 Liberty vessels, and since that date schedules have been progressively speeded up to reduce the time for completion. In an address at Boston on Maritime Day in May 1942 Admiral Land stated that the production of Liberty ships "from keep to completion in 60 days" was not beyond the realm of probability.[30] If anything, he was then very modest, for subsequently the building time of a Liberty ship was reduced progressively from the 244 days required for delivery of the first ship, the PATRICK HENRY, to the record time of 7 days required for the ROBERT E. PERRY,

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29 Cf. The Marine News, New York, May 1942, p. 82.

30 Ibid., May 1942, p. 82.

launched at the Kaiser-Richmond Yards.

The first Liberty ship, the PATRICK HENRY, was launched at Baltimore on 27 September 1941. Since the date the Army has depended heavily upon Liberty ships for transporting cargo overseas. Following the creation of the War Shipping Administration in February 1942, such ships were obtained from that agency for Army use--almost invariably on a voyage allocation basis. On 21 July 1942 Colonel C. H. Kells, Executive, Water Division, Transportation Service, advised the Maritime Commission that the Liberty ships were highly satisfactory and that they reflected great credit upon the Maritime Commission and the shipyards which produced them. Colonel Kells added that "the large size of hatches and deep 'tween deck spaces with freedom of hull obstructions, also rugged cargo gear with capacity for heavy lifts, make these vessels particularly suitable."

Liberty ships have been used by the Army for a variety of missions. Although designed primarily as emergency cargo ships, these vessels have been converted to serve as emergency troopships, as Army hospital ships, as mule ships, and as aircraft repair ships--to name only a few uses. They have carried and still carry the bulk of the Army's cargo.

The Liberty ship has been subjected to some criticism. It has been termed plodding, and the low speed has made convoying necessary in hazardous areas, undoubtedly resulting in considerable lost time with respect to turnaround. Moreover, because of mass production some structural defects have developed. Considering the tremendous fleet of Liberties in operation, the number of vessels that have developed

serious structural defects is comparatively small.

During 1943, in particular, complaint arose because of the fear that these vessels might crack up at sea and cause a serious loss of life. As a matter of fact, a few Liberty ships did break in two, principally under unfavorable weather conditions and in Alaskan waters.[31] The main objection to the Liberties, it should be noted, was to their employment as emergency troop ships and not to their service as cargo carriers. Criticism of this type culminated in 1944 in an adverse report by the Truman Committee of the United States Senate, in which, however, due praise was accorded the Liberty ship as "the truck horse of the sea."[32]

In every large amphibious operation of the current conflict Liberty ships have played an important role. For use in the invasion of Normandy a number of Liberty ships were prepared as special vehicle ships, an innovation of which a more detailed account will be given in Chapter III. In the invasion of the French Mediterranean coast in the summer of 1944 Liberty ships comprised some 95 per cent of the American freighters in the fleet which delivered not only the invasion forces but also supplies of every description to the beachheads.[33]

Beginning early in 1944 the Liberty ship program was gradually

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31 See the New York Times, 12 November 1944.

32 Cf. Ibid., 24 June 1944.

33 See the Journal of Commerce and Commercial, New York, 24 August 1944, article entitled "Libertys Played Big Invasion Role."

brought to a conclusion. In May of that year the Maritime Commission announced that additional contracts for the construction of Liberty ships were not contemplated and that the future building program called for the production of standard types.[34] The original program comprised 3,005 Liberty ships, of which 425 were "cancelled or suspended," leaving a total of 2,580 EC2 vessels actually delivered.[35]

Liberty ships no doubt will continue to form the backbone of pending operations in the Pacific just as they have in the Atlantic area. They bear a variety of names honoring deceased persons of both American and foreign birth. Some 101 of them, for example, are named after distinguished women, including among others Julia Ward Howe and the glamorous Annie Oakley. As of 30 June 1944, cargo vessels in the service of the Army were chiefly composed of EC2 Liberties, among which were included the WILLIAM E. BORAH, the IGNACE PADEREWSKI, the PHILIP H. SHERIDAN and the CLARA BARTON. Although the Transportation Corps has employed literally hundreds of Liberty ships, the Army--aside from six hospital ships of the EC2 type--at present actually operates only four EC2 vessels as cargo ships. These four ships are the ANDREW D. WHITE, the CHARLES P. STEINMETZ, the HOWELL COBB, and the THOMAS CORWIN--all operated on bareboat charter. A number of Liberty

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34 See Ibid., 25 May 1944, news item entitled "Liberty Ship Program Ending."

35 Report No. 90, U. S. Maritime Commission, 1 July 1945. Cf. Marine Age, July 1945, p. 34.

ships have been lost while engaged in direct support of amphibious operations, but many more have been torpedoed and sunk at sea. The full story of the contribution of Liberty ships to the current war effort is, however, beyond the confines of this study.

Victory Ships

As the defects of the Liberty Ship became painfully apparent and as the shipping crisis eased so as to permit a change in the program, the Maritime Commission began planning a shift in production from the Liberty type to a finer and faster vessel, still capable of mass production. The new type chosen was the Victory ship which requires a longer time to build than the Liberty, but is fast enough (16 to 17 knots) to allow her to run alone under favorable conditions, thus reducing the turnaround. The Victory ship (VC2 type) is equipped with a turbo-reduction gear power plant. The Victory is not an overall welded job but has riveted plates in certain parts of the internal structure.

The keel of this first ship of this type--the UNITED VICTORY--was laid in a West Coast yard on 19 November 1943; the ship was launched on 12 January 1944 and was delivered on 29 February of the same year, making a total building time of 102 days. As with the Liberty ship, the speed of delivery has been progressively accelerated. The HIBBING VICTORY, launched on 10 June 1944 by the Oregon Shipbuilding Corporation, required a total building time of 59 days--one day less than the 60 days which Admiral Land estimated for the Liberty ship in May 1942.

The first Victory ship launched on the East Coast had its trial run at Baltimore, Maryland, early in October 1944. This was the SS FREDERICK VICTORY, which is 455 feet long, has a speed of 15.5 knots, and a gross tonnage of 7,607. Although designed primarily for war use, the performance and operating costs of the Victory type aroused some speculation among commercial operators who thought these ships might be employed successfully in competitive ocean traffic after the war.[36] The first group of Victory ships was named for countries of the United Nations, for example, CHINA VICTORY, and the second group was named for 100 cities in the United States, of which Frederick, Maryland, is an example.

The speed and other qualities of the Victory ships have made them very serviceable for the Army. As of 31 March 1945 the Army had some 66 Victory ships, all of which were then being employed as cargo carriers.[37] However, present plans call for their utilization as troop carriers in the eventual redeployment of American forces following V-E Day.

Wartime Expansion of the Cargo Fleet

The expansion of the Army's cargo fleet during the war years may be traced chiefly to the accelerated shipbuilding program of the Maritime Commission. The bulk of the shipping used by the Army has consisted of the familiar Liberty type. The trend has been generally

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36 Cf. article in the Journal of Commerce and Commercial of 22 May 1944, p. 7.

37 Monthly Progress Report, Transportation, OCT, ASF, March 1945, p. 50.

upward, both with respect to the numbers and the total deadweight tonnage of cargo vessels in the service of the Army.

It must be noted that the increase in the fleet was achieved despite the incidence of wartime losses. In 1942, in particular, the race with the submarine was a close one. During that desperate year Axis undersea activity took a fearful toll of Allied shipping; indeed, throughout this period more cargo ships were sent to the bottom of the ocean than were made available through new construction. By December 1942, however, new construction exceeded shipping losses by a substantial margin. The following table[38] shows wartime losses and gains thru 27 December 1942 with respect to cargo vessels (1600 gross tons and over) directly and indirectly available to the United Nations.

CARGO VESSELS--LOSSES AND GAINS

Month	Cargo Ships Lost		Cargo Ships Built		Net Loss		Net Gain	
	No.	DWT	No.	DWT	No.	DWT	No.	DWT
December 1941	32	252,000	16	124,000	16	128,000	-	-
January 1942	79	615,000	22	170,000	57	445,000	-	-
February	63	496,00	44	344,000	19	152,000	-	-
March	72	572,000	60	476,000	12	96,000	-	-
April	110	799,700	39	409,500	71	390,200	-	-
May	130	370,100	85	883,500	45	-	-	13,400
June	118	852,000	63	665,800	55	186,200	-	-
July	110	877,000	74	757,500	36	119,500	-	-
August	98	817,200	91	963,000	7	-	-	145,800
September	81	613,000	80	837,000	1	-	-	224,000
October	75	589,200	85	883,300	-	-	10	294,100
November	140	1,149,800	114	1,175,300	26	-	-	25,500
December	72	560,800	96	1,006,900	-	-	24	446,100
TOTAL	1,180	9,063,800	869	8,695,800				
NET LOSS					311	368,000		

38 Monthly Progress Report, Transportation, OCT, ASF, December 1942, p. 4.

In 1943, despite a new U-boat campaign, the Battle of the Atlantic assumed a more favorable aspect for the United Nations. Thanks to the redoubled efforts of the United States Navy, in that year sinkings of American vessels became far less frequent, while at the same time ship production forged ahead. If not entirely shipped, the submarine was at last definitely curbed as a menace to our cargo fleet. During 1944 the advantage in the war at sea continued with the United Nations, and there were months on end in which no Army cargo vessel was lost because of submarine activity.[39] Marine casualties, to be sure, were not eliminated, for there are many hazards incident to wartime operation. The significant net result of the improvement in the years 1942 through 1944 has been that Army freight, by and large, has reached the combat theaters in adequate quantities for all purposes.

The growth of the Army's cargo fleet may be illustrated in various ways. First of all it may be interesting to compare the total deadweight tonnage of cargo ships under Army control during the twenty months of World War I with similar figures for the first twenty months

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39 The emphasis is here placed upon the Atlantic area, since Japanese submarines have never become a major problem for American shipping in the Pacific.

of the current conflict. As the following compilation shows, as of 31 July 1943, after 20 months of war, the Army controlled 5,968,695 deadweight tons of shipping for cargo purposes.[40]

WORLD WAR I			WORLD WAR II		
	Month	Cargo Ships (DWT)		Month	Cargo Ships (DWT)
1	Apr 1917	15,270	1	Dec 1941	503,732
2	May	15,270	2	Jan 1942	719,653
3	Jun	48,000	3	Feb	1,334,267
4	Jul	85,000	4	Mar	1,415,174
5	Aug	126,000	5	Apr	1,794,326
6	Sep	229,000	6	May	2,018, 405
7	Oct	297,000	7	Jun	2,111,095
8	Nov	467,000	8	Jul	2,763,688
9	Dec	543,000	9	Aug	3,142,599
10	Jan 1918	620,000	10	Sep	3,303,068
11	Feb	718,000	11	Oct	3,289,398
12	Mar	926,000	12	Nov	2,982,681
13	Apr	1,066,000	13	Dec	3,107,505
14	May	1,184,000	14	Jan 1943	3,610,349
15	Jun	1,350,000	15	Feb	3,973,076
16	Jul	1,485,000	16	Mar	3,967,800
17	Aug	1,633,000	17	Apr	4,272,061
18	Sep	1,933,000	18	May	5,314,759
19	Oct	2,310,000	19	Jun	5,763,457
20	Nov	2,753,000	20	Jul	5,968,685

The number and the tonnage of cargo vessels in the service of the Army necessarily vary from month to month as new requirements arise, special missions are accomplished, and individual ships are lost or must be laid up for repairs. The following compilation begins with March 1942 and so reflects the steady allocation of cargo vessels to

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40 Comparative Data World War I-World War II, OCT, ASF, July 1943, p. 9.

the Army by the War Shipping Administration.[41] As will be seen, from March 1942 through December 1944 the Army's cargo fleet in general has been on the increase with respect to numbers and tonnage. No comparison is here attempted with regard to 1945, since early in that year a change was made in the basis of the counting of the ships in Army service.

NUMBER AND TONNAGE
of the
ARMY'S CARGO SHIPS

As of End of Month	No. of Ships	Gross Tonnage	Deadweight Tonnage	Measurement Tonnage
March 1942	195	968,163	1,415,174	1,654,385
June	276	1,424,066	2,111,095	2,430,745
September	410	2,265,223	3,303,068	3,744,701
December	391	2,130,924	3,107,505	3,462,325
March 1943	444	2,670,127	3,967,800	4,365,807
June	617	3,819,649	5,763,457	6,081,583
September	880	5,647,290	8,501, 177	8,471,776
December	813	5,196,200	7,420,984	8,028,029
March 1944	984	6,562,336	9,798,100	10,651,500
June	1,284	8,601,424	12,473,700	13,678,600
September	1,456	9,760,921	14,068,900	15,566,500
December	1,520	10,250,205	14,978,800	16,572,300

41 These figures are based upon the summaries published by the Statistics and Progress Branch, Control Division, OCT, in the Monthly Progress Report, Transportation. For further details see the issues for the specific months to which reference is here made.

The Fleet Today

Vessels in Army service on 31 March 1945 totaled 1,464, of which 179 were troopships and 1,285 were cargo ships. The 1,285 cargo vessels had a total gross tonnage of 8,567,147, a total deadweight tonnage of 11,640,900, and an average capacity per vessel of 10,495 measurement tons. The apparent decrease in number of the Army's cargo ships is due to a statistical change made at the end of February 1945, which resulted in figures "not fully comparable" with those of the proceding months. Principal features of the new basis for counting the vessels in Army service are:

> 1. The elimination of ships working primarily for the Navy or for other agencies, which were included, in certain cases, in previous reports when loads of Army cargo or troops were carried.
>
> 2. The availability of more timely information relative to complete discharges in theaters of operation.[42]

Fully two-thirds of the cargo vessels currently in Army service are of the EC2 Liberty type. The Army's cargo fleet, as of 31 March 1945, may be classified as follows with respect to design and number.[43]

Design	Number of Ships
EC2	880
Victory	66
C1	40
C2	43
C3	8
Misc.	248
Total	1,285

42 Monthly Progress Report, Transportation, OCT, ASF, 28 February 1945, p. 54.

43 Ibid., 31 March 1945, p. 50.

USAT MEIGS

In Army service since 1922, the MEIGS was sunk by Japanese bombers in February 1942.

U.S. ARMY TRANSPORT
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II

THE CONTROL STATUS OF THE ARMY'S CARGO CARRIERS

Cargo ships in the service of the Army vary considerably as to control status. Like the Army's troop ships, they may be owned outright or simply held on a loan basis; or they may be operated on bareboat or sub-bareboat charter; or, as is more often the case, they may be "allocated" vessels obtained from the War Shipping Administration. On occasion, certain Army freight may not require the use of an entire ship, in which instance either space charter or commercial booking may suffice. Moreover, U. S. Navy vessels and foreign flag vessels may be employed to carry Army cargo. In this chapter the principal types of control will be discussed, with emphasis upon ships allocated to the Army by the War Shipping Administration.

Army-Owned Cargo Ships

The most complete Army control naturally obtains over the freighters owen outright by the War Department. Such vessels are manned, operated, maintained and repaired by the Army. In September 1939 there were only two cargo vessels in this category, the MEIGS,[1] and the LUDINGTON. By 7 December 1941, the number of Army-owned freighters had increased to 12. As of 1 April 1945, because of wartime losses, there are only 11 owned cargo ships in the service of the Army. Of these 11 vessels, two

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1 The MEIGS, ex-WEST LEWARK, transferred to the Army in 1922 by the U. S. Shipping Board, served for many years as a freight and animal transport. The MEIGS was sunk by Japanese bombers in the harbor of Darwin, Australia, on 19 February 1942.

are small tankers (the GEORGE F. DOWNEY and the T. W. DRENNER), while one freighter (the ELI D. HOYLE) is inactive.

Vessels on Loan

Although some loans may have been arranged informally, there is record of only two such transactions. The LIBERTY was transferred by the Maritime Commission to the Army on a loan basis in December 1939. Manned and operated by the Army Transport Service, the LIBERTY continued to serve the Army until she was torpedoed and sunk near the island of Bali on 11 January 1942. In November 1940 at the request of the Quartermaster General the Maritime Commission made a temporary loan of the SS SILETZ to the War Department to transport certain accumulated military freight from New York to Puerto Rico.

After the creation of the War Shipping Administration in February 1942, cargo vessels could be obtained readily as allocations. As a result there was no special need of resorting to loans.

Vessels on Bareboat or Sub-bareboat Charter

Throughout the war years the Army has depended consistently upon a number of cargo vessels held on bareboat or sub-bareboat charter. Except for some emergency chartering in overseas areas, the Army has obtained all such vessels through the War Shipping Administration ever since the establishment of this agency early in 1942. The main difference between the sub-bareboat and the bareboat types of charter lies in the fact that the latter (bareboat) covers vessels to which

USAT BARBARA OLSON

An inter-island transport based at Honolulu.

the War Shipping Administration holds title, whereas the former (sub-bareboat) applies to vessels not owned but chartered by that agency.

The control exercised by the Army over bareboat and sub-bareboat chartered vessels is exactly the same. Both types are manned, operated, maintained and repaired by the Army for use on Army missions. They are assigned to specific Army ports or theaters, and they perform the same functions as do the owned cargo transports. At present (April 1945) there are approximately 30 such ships (Army transports and inter-island vessels) principally engaged in carrying cargo for the Army.

As examples of cargo carriers in the bareboat and sub-bareboat status may be noted several inter-island transports assigned to Pacific areas, such as the ALAMO, the BARBARA OLSON, and the LAKE FRANCES. Based at the Seattle Port of Embarkation are a number of vessels operated on charters of this type for the Alaskan run, notably the ALENCON, the DELAROF, and the MORLEN. The cargo ships held on bareboat or sub-bareboat charter vary in size from approximately 1,000 to 6,000 gross tons, and practically all of them sail in the Pacific.

Time and Voyage Charters

Although some cargo vessels--particularly in 1941--were engaged by the Army on time and voyage charters, such charters at present (April 1945) have largely fallen into disuse. From its creation the War Shipping Administration was provided with funds to charter vessels for Army use, thus obviating the need of direct chartering by the Army except where absolutely necessary. However, beginning in 1942 the

War Department has regularly requested and received certain additional funds to cover emergency chartering of vessels for Army use in overseas theaters.

Allocated Vessels

From March 1942 to date by far the largest number of cargo vessels in Army service has been furnished in the form of allocations from the War Shipping Administration. Such ships are usually made available for a stipulated period, generally for the outbound voyage only, but at present for the inbound voyage also, provided there are 1,000 tons or more of Army cargo aboard. They are managed, operated, and manned by commercial steamship lines acting as agents of the War Shipping Administration. All costs of operating, maintaining, and repairing allocated vessels are borne by that agency.[2]

The present system of vessel allocations appears to have developed gradually. Its beginnings may be traced to the United States Maritime Commission, the parent organization of the present War Shipping Administration. In 1941 the rudiments of the vessel allocation system of today were already present. On 1 October 1941 the Maritime Commission had a fleet of 113 vessels under its control, all of which were then operated by American steamship companies on essential trade routes.

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2 See par. 6, War Department Memorandum No. 55-44, 29 September 1944 entitled "Transactions between War Department and War Shipping Administration."

In addition, the Maritime Commission then owned a number of vessels which were chartered to the War and Navy Department.[3] Moreover, through its Division of Emergency Shipping, created 28 February 1941, the Commission sought to establish a reservoir of "spot" ships to meet emergency demands for ocean tonnage. Furthermore, the Maritime Commission had to decide among the available ships as to exactly which ones should be turned over to the Army or to the Navy or to commercial operators. Lastly, it should be noted that under the Act of 1936 the Maritime Commission was charged primarily with the construction rather than the operation of ships for the American merchant marine.

The Strategic Shipping Board

The Japanese attack on Pearl Harbor brought into sharp focus the serious shortage of ships for vital wartime needs. Henceforth it became increasingly clear that the shipping problem would have to be met by concerted action of the Army, the Navy, and the Maritime Commission. The first step in that direction was the establishment of the Strategic Shipping Board.

Created by letter of the President dated 8 December 1941, the Strategic Shipping Board included among its members General Marshall, Admiral Stark, Admiral Land, and Mr. Harry L. Hopkins. Actually, Colonel (now Major Gen.) C. P. Gross, then Chief of the Transportation

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3 Cf. Report of the United States Maritime Commission for the Period Ended October 25, 1941, p. 38. Significantly enough, on this same page a number of Maritime Commission vessels are described as having been "allocated."

Branch, G-4, appears to have been the key War Department representative. Evidently, the Board was created to pass upon the most important shipping matters and to make appropriate recommendations thereon to the President.

In his letter the President stated that he was "concerned with the necessity of securing the most effective use of the Merchant Marine to carry out the war effort and maintain the flow of military and civilian shipments." The Board, he declared, "should establish policies for and plan the allocation of merchant shipping to meet military and civilian requirements, and coordinate those activities of the War and Navy Departments and the Maritime Commission". Actual operations, however, were to "remain in the hands of existing organizations." Furthermore the Board was directed to consult with representatives of the Office of Lend-Lease Administration and of other agencies of the Government "responsible for procuring or planning the procurement, production, import and export of defense articles and materials."

At the initial meeting of the Strategic Shipping Board on 23 December 1941, General George C. Marshall proposed the following for adoption:

> "RESOLUTION V -- RESOLVED: That the control and operation of shipping to meet all Army overseas needs, other than for combat loaded troops prepared to force landings, be charged to the Army with the direct and full assistance of the Maritime Commission within the allocation approved by the Board; and that Navy retain control over routings, escorts and the use of radio of all United State shipping and be charged with the provision of shipping and its operation for all amphibious operations."

Admiral Stark did not oppose the resolution, but stated that he thought it should be given further study before adoption.[4] Available records fail to indicate fully the role of the Board, but it appears to have performed a useful function at a critical time. Early in 1942 the Strategic Shipping Board, though never formally abolished, was supplanted by the War Shipping Administration and apparently ceased to function. [5]

Although the evidence is incomplete, it appears that the Navy very soon exhibited a tendency to independent action with respect to shipping.[6] Furthermore, although the coordination of shipping requirements had been assigned to the Strategic Shipping Board, under date of 17 December 1941 the Navy requested that it be made "the clearing house for Army shipping requirements where charter of ships through the Maritime Commission is necessary" -- a proposal to which General Marshall would not agree except for naval auxiliary vessels.[7]

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4 See G-4 File 34244, Memorandum of 23 December 1941, by Col. C. P. Gross. In the main, this resolution foreshadowed the subsequent developments with respect to shipping.

5 According to Mr. H. T. Morse, Assistant to the War Shipping Administrator, as stated in an interview of 28 April 1945, the Board "died a natural death." Cf. the letter of 9 March 1942 in which General Somervell informed Admiral Land that the War Department considered the Executive Order which established the War Shipping Administration to be an abrogation of the President's letter appointing the Strategic Shipping Board. See G-4 File 29717-26.

6 Cf. Memorandum of 26 December 1941, to the Chief of Staff from Col. C.P. Gross as War Department Representative, Strategic Shipping Board.

7 See Memorandum of 24 December 1941 from General Marshall to Admiral Stark.

Available records do not indicate what steps, if any, were taken by the Board in these matters.

Continued Control by the Maritime Commission

Throughout 1941, aside from occasional purchases, the Army's fleet of cargo vessels was expanded chiefly by means of chartering ocean tonnage as needed.[8] The chartering was done mainly through or with the approval of the Maritime Commission. When America entered the war, that agency was dominant in the procurement of vessels. In fact, as of January 1942 the War Department frankly recognized that the "allocation of shipping" was "of necessity centralized in the Maritime Commission in Washington."[9] When early in January 1942 it was alleged that Lt. Col. Thomas J. Weed at the Seattle Port of Embarkation had seized two combination freight and passenger vessels (the SS BARANOF and the SS COLUMBIA), Colonel Frank S. Ross of the Transportation Branch, G-4, at Washington, D. C., telephoned to the port commander and bluntly requested that such action be stopped at once. Said Colonel Ross: "We can't go out and grab off boats until we clear them thru the Maritime Commission." The Commission, he added, had obtained "all the boats we've needed so far," and he wanted

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8 On 4 December 1941 the Daily Activity Report of the Water Transport Branch, OQMG, noted that as of that date there were 127 vessels operating under various forms of charter (including space, time and voyage) for the Army Transport Service.

9 See Memorandum of 27 January 1942 from the Deputy Chief of Staff to the Under Secretary of War. G-4 File 33889.

therefore "to play ball with them."[10]

During January 1942 the Maritime Commission continued to serve as the source of emergency shipping for the Army. In that month Admiral Emory S. Land, Chairman of the Maritime Commission, was requested to furnish 20 freighters urgently required as an "allocation of shipping" for the reinforcement of the American troops in the Far East.[11] The request was made by the Secretary of War through the President, who was then in conference at Washington, D. C., with the British Prime Minister, Mr. Winston Churchill. Similarly, on 24 January 1942 the Assistant Chief of Staff, G-4, Brig. General Brehon Somervell, requested that Admiral Land acquire three seatrains "by charter without delay for Army use."

By 6 February 1942 the Maritime Commission had begun using the term "assigned" with respect to vessels operated under its control. On that date in response to a letter of 31 January requesting certain vessels for Army use, Mr. Ralph Keating, Assistant Director, Divison of Emergency Shipping, described the "terms and conditions" under which certain named vessels would be furnished to the War Department. The SS ELMA, for example, which was on time charter to the Commission, would make space available for the War Department. The SS ROBERT GRAY (a Liberty ship) was described as "Commission owned, assigned for use

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10 See report of telephone conversation of 8 January 1942. One week later, Col. C. H. Kells of the Water Transport Branch, OQMG, made a formal request for approval of the chartering of these two ships by letter to the Division of Emergency Shipping, U. S. Maritime Commission, Washington, D. C., attention: Mr. Dudley Donald.

11 Cf. G-4 File 33983.

of War Department," whereas other vessels, such as the SS ALCOA POLARIS were said to be "not available, assigned to other employment." Last in the list was the SS COLDBROOK[12] which was noted as "voyage charter, assigned to War Department one voyage." The letter closed with this statement; "It is understood that vessels which are time chartered by the Maritime Commission will be assigned to the War Department without actually sub-chartering to the War Department."

Competition for Shipping within the War Department

During 1941 the shipping problem of the Army was further complicated by competition within the War Department for available ocean tonnage. In this respect the Corps of Engineers, in particular, challenged the centralized control of the Quartermaster General over Army transportation--no doubt because of the urgency of transporting personnel, materials and equipment for its construction projects in overseas areas. However, the Assistant Chief of Staff, G-4, did not approve the separate control of transportation desired by the Chief of Engineers.[13]

Despite this rebuff, the Corps of Engineers, and notably in Hawaii, continued to act independently even after American entry into the war. Accordingly, in a sharply worded memorandum of 6 February 1942 to the Chief of Engineers, the Assistant Chief of Staff, G-4, Major General

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12 On 3 June 1942 the SS COLDBROOK became a total loss by stranding at Middleton Island.

13 For details see G-4 File 32834.

Brehon Somervell, laid down a stern policy on the entire subject. "Shipping," he declared, "has become so critically limited that competition for it within the War Department must cease." All ship space, he directed, was to be obtained solely through the Quartermaster General, and priorities for overseas shipments were to be applied by the Assistant Chief of Staff, G-4, in accordance with the approved recommendations of the overseas commanders.[14]

Creation of the War Shipping Administration

By February 1942 the situation was ripe for the establishment of a new organization to cope with the shipping crisis, leaving to the Maritime Commission the task of vessel construction. This new agency was the War Shipping Administration, which was established within the Office for Emergency Management on 7 February 1942, by Executive Order 9054. To the Administrator of the agency were transferred the functions, duties, and powers of the United States Maritime Commission with respect to the operation, purchase, charter, insurance, repair, maintenance and requisition of vessels. To the War Shipping Administration was also transferred part of the personnel of the Maritime Commission, together with certain records and public property deemed necessary for operational purposes.

Late in 1941 the proposal was advanced by Admiral Turner of the Navy Department that there be "created a Ministry of Shipping" evidently

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14 See G-4 File 29717-150.

modeled upon the British Ministry of War Transport. In a memorandum of 1 January 1942 for Admiral Stark, General George C. Marshall countered with the proposal that a "Central Shipping Administration" be created with the Chairman of the Maritime Commission as Administrator, and with a Board of Directors to include, in addition to the Chairman, the Chief of the Naval Transportation Service, the Assistant Chief of Staff for Supply of the War Department, and Mr. W. H. Harrison of the Office of Production Management. Admiral Land and Mr. Harry L. Hopkins, said General Marshall, had approved informally the creation of such an organization, and General Marshall suggested, therefore, that the Army, Navy and Maritime Commission prepare the final draft of an Executive Order for submission to the President. On 15 January 1942 a copy of the proposed Executive Order for the establishment of a Central Shipping Administration was sent to the White House, together with a joint letter from the Secretaries of War and Navy. The proposed Executive Order was based on a draft prepared by the Army, which had been reworded so as to give the Administrator more complete control.

Commenting on the proposed order the Secretary of the Navy, Mr. Frank Knox, expressed the belief "that the appointment of an Adminstrator of Shipping with broad powers at an early date is essential in order to prevent confusion and delay in the proper use of our shipping resources." On 28 January 1942 Brig. General Brehon Somervell, Assistant Chief of Staff, G-4, reported to the Secretary of War that the Bureau of the Budget had received several drafts of the proposed

Executive Order which was then being redrafted so as to set up a "War Shipping Administration giving greater power to the Administrator."[15] Evidently this was the draft which finally emerged on 7 February 1942 as Executive Order 9054.

Particularly significant for the expansion of the Army's cargo fleet was Section 4 of Executive Order 9054, which provided that, "Vessels under the control of the War Shipping Administration shall constitute a pool to be allocated by the Administrator for use by the Army, Navy, other Federal departments and agencies, and the governments of the United Nations. In allocating the use of such vessels, the Administrator shall comply with strategic military requirements." With the establishment of this new agency to make the necessary allocations, the Army at last had at its disposal a reservoir of shipping with which to meet the growing cargo requirements of the overseas theaters.

The Navy Attempts to Alter the Situation

The War Shipping Administration had hardly been established when the Navy Department (Admiral S. A. Taffinder) sought to bring up the entire question of the operation by the Navy of the Army Transport Service, and more particularly, the proper liaison agency with the War Shipping Administration. Briefly, Admiral Taffinder wanted to revive the provisions of the so-called "Joint Army and Navy Basic War Plan--Rainbow No. 5," which (par. 50) provided that in time of war the Navy

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15 See G-4 File 33813-1.

should man and operate the Army Transport Service. Furthermore, he stated that the Navy "should be the only liaison agency with the War Shipping Administration," and concluded by recommending that the date of 1 May 1942 be set as the time for the Navy to begin operating the ships of the Army Transport Service. [16]

To this memorandum the Army Chief of Staff, General George C. Marshall, made a spirited rejoinder, evidently prepared for his signature by Colonel C. P. Gross. This reply was sent to Admiral Stark under date of 27 February 1942. Briefly, after stating his inability to concur in the recommendations of Admiral Taffinder, General Marshall made the following comment:

> "This matter was disposed of by Executive Order No. 9054, February 7, 1942, forming the War Shipping Adminstration. The action to create a War Shipping Administrator originated with the Navy and the provisions of the Executive Order were mutually arrived at after much discussion between representatives of the Army and Navy. This order provides for the control by the Army of its own transports, for the allocation of vessels by the War Shipping Administrator to the Army for its use, and for close liaison with the War Department through the Assistant Chief of Staff, G-4, with reference to the movement of military personnel and supplies. Thus it definitely abrogates the provisions of the Joint Action to which Admiral Taffinder refers.
>
> "The solution offered by the Executive Order is most satisfactory to the Army. It is believed that the creation of the Maritime Commission and now of the War Shipping Administration promises a much better use of our shipping in time of war than has ever obtained in the past. It is therefore felt that this question is settled."[17]

16 See Memorandum of 23 February 1942 from the Director of Naval Transportation Service to the Chief of Naval Operations, Navy File Op-59-G-ml, Serial 07639. SECRET

17 For details see G-4 File 29717-51.

Requests for the Allocation or Requisition of Ships

The Navy Department did not become the sole channel of liaison between the War Shipping Administration and the Army. Instead, members of the armed services soon adopted the practice of meeting regularly with representatives of the War Shipping Administration. Since Admiral Land, the Administrator of the new agency, was also Chairman of the Martime Commission, available correspondence of February and March 1942 frequently refers to the Maritime Commission where obviously the War Shipping Administration is intended.

One of the earlier meetings was held on 18 February 1942 in the office of Mr. B. B. Jennings who was charged with the handling of tankers. (It may be recalled that the German submarines early in 1942 began to attack and sink tankers, resulting almost immediately in a serious situation.) Mr. Jennings stated that he was seeking some arrangement whereby representatives of the Army and the Navy would meet with him regularly and place before his office the exact needs of both branches of the armed services, so that tonnage could be assigned without duplication.[18] In general, what he sought was to provide a clearing house for the tanker requirements of the Army and the Navy. This meeting was a forerunner of what was to become a regular practice throughout the summer of 1942.

Up to 1 March 1942 there appears to have been no established system of handling requests from the Navy Department and the War Department

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18 See Memorandum of 18 February 1942, from Ocean Traffic Section to Chief, Water Transport Branch, OQMG.

for the allocation or the requisition of ships by the War Shipping Administration. As far as the Army was concerned, estimates of shipping requirements had been given successively to the Maritime Commission since September 1941, but through no fault of the Commission or the Army it had been "impossible to coordinate the two, i.e., requirements and tonnage."[19]

On 3 March 1942, however, Admiral E. S. Land, as War Shipping Administrator, sent identical letters to the Secretary of Navy and the Secretary of War regarding the requests for the allocation or requisitions of ships. During the past year or more, said Admiral Land, requests had emanated not only from the Secretary of War and the Secretary of Navy but also from various sub-divisions of their departments. Admiral Land was not inclined to question the validity of such requests, but his office required some assurance that the requests had the sanction of superior authority. He therefore recommended that requests for ships be forwarded to the War Shipping Administration "through the channels set up by the President, i. e., through the Strategic Shipping Board or through the Secretaries of War and Navy."

Under date of 9 March 1942 Major General Brehon Somervell, Commanding General, Services of Supply, replied to Admiral Land, expressing a desire to make every effort possible in order to lighten the burden on the War Shipping Administration. General Somervell stated:

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19 See Memorandum of 3 March 1942 from Capt. A. G. Syran to Col. C. H. Kells, Water Transport Branch, OQMG.

"It must be recognized, however, that the pressure of business forbids the routing of the many request for shipping through the Secretary of War or the Chief of Staff. It is felt that the Executive Order creating your office of War Shipping Administrator was designed in part to accomplish that purpose. It provides for direct liaison with your office through the Assistant Chief of Staff for Transportation and Supply who now becomes the Commanding General, Services of Supply.....

"Orders have been issued by the War Department directing that all requests for shipping be made through but one agency, the Transportation Division. Mr. Keating has been asked to ignore all requests coming from other offices of the War Department and has indicated that he is doing so."[20]

The Allocation of United States Shipping for the Year 1942

In his letter of 9 March 1942, cited above, General Somervell noted that a study had been initiated to provide a basis for the allocation of cargo shipping for the year 1942 that would meet the needs of Defense Aid, the Army, the Navy, the War Production Board, and other Federal agencies so as to permit advance planning for efficient use by all concerned. This, said General Somervell, was believed to meet the essential purpose that Admiral Land had in mind of "a common approach to the problem of allocation."

The projected allocation of cargo shipping to which General Somervell referred was delivered to Mr. Harry L. Hopkins by Colonel M. B. Stokes, Jr., on 24 February 1942. Included in the calculations were ships already in service, plus "those necessary to carry out: (a) the Defense Aid Program; (b) a military effort of 590,000 addi-

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20 See AG File 561

tional troops overseas." It was realized that, unless certain ships were obtained, the proposed distribution of cargo vessels might have an adverse effect on freight service to South American and to South Africa. The charts supporting the proposed allocation were prepared "on the basis of the completion during the calendar year 1942 of 477 dry cargo ships of over 5,000 ton capacity" by the Maritime Commission.

The completed study, it appears, was next discussed by Mr. Hopkins with representatives of the War Shipping Administration, the War Production Board, the Army, the Navy, and the Munitions Assignments Board, and the concensus was that it represented "a close approach to the maximum that can be done to sustain the war effort." It was therefore recommended by General Somervell that the study on the allocation of United States shipping for the year 1942 be submitted to the Joint Chiefs of Staff for "their action and recommendation to the War Shipping Administrator." [21]

Initial Agreements on Allocated Ships

In the spring of 1942 a number of significant arrangements were made between the War Department and the War Shipping Administration with respect to allocated vessels. As of 18 March 1942 Mr. Lewis W. Douglas, Deputy Administrator, War Shipping Administration, presented a plan which was approved by General Somervell on the same day. The

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21 General Somervell's recommendation, dated 26 February 1942, was prepared by Col. C. P. Gross. For further details see G-4 File 29717-116.

purpose was to "prevent congestion on the rails and at the terminals, and to obtain the most effective use of our transportation system for vital war purposes." Briefly, under this plan the War Shipping Administration was to obtain the overall shipping requirements, to estimate the supply of shipping available, and in accordance with established priorities to allocate United States controlled ships and shipping space to satisfy these requirements. Furthermore, by means of the Combined Shipping Adjustment Board, the War Shipping Administration was to coordinate such allocations with the available ships and shipping space under control of the British and other Allied nations.[22] With regard to cargo vessels the plan of Mr. Douglas contemplated that cargo shipped to an Army base would be loaded by the War Department.

During May of the same year there was some correspondence between Colonel C. H. Kells, Executive Officer, Water Division, OCT, and Mr. D. F. Houlihan, Director of Fiscal Affairs, War Shipping Administration, Washington, D. C., relative to a proposed agreement in writing concerning the acquisition of title and the use of vessels required by the War Department. As a model Colonel Kells utilized a similar agreement reached between the War Shipping Administration and the Navy Department. Briefly, the agreement proposed by Colonel

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22 The Combined Shipping Adjustment Board, set up on 26 January 1942 by the United States and Great Britain, has sections in London and Washington. The Board, which is still in existence, seeks to coordinate British and American shipping resources in the common war effort.

Kells provided for purchase and requisition of all vessels by the War Shipping Administration except in case of emergency overseas where the War Department might find it necessary to acquire vessels directly on its own account. The proposed agreement also provided for the acquisition of vessels for the War Department under bareboat charter and for the allocation of commercial vessels to the War Department either for "a definite or indefinite period." The latter provision was to be specially important with regard to cargo vessels since most ships allocated by the war shipping Administration to the Army fall within this category.

The Basic Agreement of June 1942

In June 1942 a basic agreement was finally reached between Mr. L. W. Douglas, Deputy Administrator of the War Shipping Administration, and Lt. Gen. Brehon Somervell, Commanding General, Services of Supply. This agreement, dated 15 June 1942, provided "a firm basis for unqualified mutual aid." Of its 18 paragraphs, only a few apply directly to cargo ships. According to paragraph 5, all freighters assigned to the Army were to be loaded by the Army Transport Service. Paragraph 6 directed "the closest possible liaison" between the Army Transport Service and the War Shipping Administration, "so that cargo can be interchanged by mutual consent between vessels to secure close stowage and full and down loadings." Paragraph 9 provided that assignments of vessels, except for troopships, should be "on a voyage to voyage basis only, but made as far in advance as is practicable;" while paragraph 10 stated that all assigned vessels except troopships

were to revert to the War Shipping Administration upon the completion of discharge of Army cargo, and that this homeward employment should be determined and controlled by the War Shipping Administration. However, the theater commander in emergencies might retain temporarily such vessels in so far as was required by military necessity. (This proviso covering theater retentions later was to result in considerable difficulty for the Army as will be shown in Chapter V.) In general, the provisions of this basic agreement have been carried out by both the Army and the War Shipping Administration.[23]

The Situation in 1943

During the calendar year 1943 there appear to have been no very sifnificant changes in the relationship between the War Shipping Administration and the Army with regard to allocated vessels. During February of that year an understanding was reached by representatives of the War Department, the War Shipping Administration, and the Bureau of the Budget with reference to certain fiscal arrangements concerning the operation, maintenance and repair of merchant vessels used by the Army. Among ships covered by this understanding were the War Shipping Administration vessels operated by its agents or general agents and allocated for use by theArmy. It was agreed that all costs of maintaining and operating the vessels in this category were

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23 See the comparative analysis on pp. 10-15 of Mr. C. C. Wardlow's monograph entitled Operating Relationships of the Office of the Chief of Transportation, Army Service Forces, with Civilian Government Agencies in Regard to Transportation, January 1945.

to be borne by the War Shipping Administration.[24] This arrangement has remained unchanged to the present.

As to actual procedure in 1945, it appears that in most cases, except for emergencies, the Water Division, OCT, at Washington, D. C. made a formal request of the War Shipping Administration for the number of freighters needed for specific convoys.[25] In general, the practice was to call for freighters (entire ships), with the understanding that each freighter would have approximately the same capcity as a Liberty ship, since that was the most common type furnished by the War Shipping Administration. Where less than a ship load was needed, the Army called upon the War Shipping Administration for space, but in turn offered to that agency any space which it might have available in ships under Army control.[26]

Developments in 1944

In February 1944 a proposal was made that a central committee be set up on the West Coast to exercise "independent control over allocations of ships, repairs, and other matters of interest to the War

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24 See letter of 15 February 1945 from L. W. Douglas, Deputy Administrator, War Shipping Administration, to Lt. Gen. Brehon B. Somervell, Services of Supply, Washington, D. C.

25 Such requests were numbers; cf. Request No. 45-49, dated 24 March 1945, the original of which was delivered to the War Shipping Administration by Major (now Col.) A. G. Syran of the Ocean Traffic Branch, Water Division, OCT. See OCT File SPTOW 545.02 T. The practice of numbering these requests, which was begun by Col. Syran, has been continued. The current series started with 45-1.

26 See letter of 19 February 1945 from Major General W. D. Styer, Chief of Staff, Army Service Forces, to Mr. Lewis Douglas, Deputy Administrator, War Shipping Adminstration, Washington, D. C.

Department, Navy Department, and War Shipping Administration." Although the proposal appeared to be sound, if adopted it would have amounted to decentralizing the activities of the War Department, the Navy and the War Shipping Administration. In a detailed appraisal of the proposal, Lt. Col. A. G. Syran pointed out that the idea was not new but was simply a "rejuvenation of the system employed by the West Coast up until June of 1943." During the period June 1942 to June 1943, he wrote, the major activities of the War Department were focused on the East Coast with the result that the War Shipping Administration concentrated available shipping in that area. During this same period, although the general policy was determined in Washington, D. C., actual operation of the vessels on the West Coast was accomplished in that area. When, however, shipping became more plentiful, cargo began to move through the West Coast ports in larger quantities, and it was found, said Lt. Col. Syran, that the West Coast Committee's estimates of cargo as well as of shipping varied considerably from the estimates of the War Department. The variance, in fact, was so great that a combined effort was made by the War Department, the Navy Department and the War Shipping Administration to centralize activities in Washington, D. C., and to go beyond a more statement of policy.

The centralization in Washington took almost six months to complete, Colonel Syran stated. As a result of this change it was possible to take advantage of surplus shipping on the East Coast during October 1943 through January 1944, and by the movement of cargo out of

East Coast ports for Pacific destinations to relieve the shortage of ships on the West Coast. The creation of an independent West Coast committee, declared Colonel Syran, "would at one stroke destroy flexibility of shipping." Furthermore, the West Coast was familiar with only a portion of the entire cargo movement picture. By reference to actual figures for January 1944 Colonel Syran demonstrated that the West Coast ports were as much as 30 per cent in error in their estimates of shipping requirements, as compared with some ten per cent for estimates prepared by the Office of the Chief of Transportation at Washington, D. C. He did, however, deem it advisable that local committees be created at each of the ports of embarkation to coordinate activities with the central group in Washington.

Present Allocation Procedure

The present procedure for the allocation of cargo ships involves primarily two headquarters divisions of the Office of the Chief of Transportation, namely, the Planning Division and the Water Division. The Planning Division, OCT, estimates the Army's requirements for troop and cargo lift for the next six months. These requirements, together with those of the Navy, and the War Shipping Administration estimates of shipping needed for lend-lease and civilian purposes, are coordinated in the Joint Military Transportation Committee. The decisions of the latter serve as a general guide to the War Shipping Administration in the allocation of shipping under its control.

After the long range plans for the utilization of shipping have been made, it becomes the task of the Water Division, OCT, to obtain allocations of specific War Shipping Administration vessels. With respect to cargo ships, the Water Division prepares a forecast for the following six to eight weeks, showing where and in what quantity cargo must be lifted. These forecasts, which are reviewed twice a month, enable the War Shipping Administration to clarify its plans for the deployment of ships. Final arrangements for the allocation of specific ships to load specific cargoes are worked out in semi-weekly meetings between representatives of the Water Division and the War Shipping Administration and by direct telephone communications.[27]

Navy Vessels

Despite some competition for available shipping, in the years 1941-45 the War and Navy Departments frequently have cooperated in providing water transportation for their respective needs. Thus, in December 1941 the Water Transport Branch, Transportation Division, OQMG, supplied a "verbal estimate" to the Naval Transportation Service, of the space available during that month on Army transports in the Pacific after the current Army requirements had been met.[28] Similarly, the Navy on occasion has furnished shipping space to the Army.

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27 The above is based substantially upon pp. 15-16 of Mr. C.C. Wardlow's monograph of January 1945, entitled Operating Relationships of the Office of the Chief of Transportation, Army Service Forces, with Civilian Government Agencies in Regard to Transportation.

28 See Daily Activity Report, Water Transport Branch, OQMG, 3 December 1941

Such reciprocal arrangements extended to both cargo and personnel shipments. On 6 February 1942 by memorandum to Admiral S. A. Taffinder, Director of the Naval Transportation Service, Major General Brehon Somervell, Assistant Chief of Staff, G-4, made the following request:

> When space is available in Navy shipping for the transport of Army materials and personnel, whether military or civilian, it is requested that it be placed at the disposal of only one agency of the War Department, the Transportation Branch of the Office of the Assistant Chief of Staff, G-4, for allocation in accordance with established priorities. Appropriate orders will be issued to War Department agenices (see letter enclosed) who have heretofore approached the Navy independently.[29]

Cooperation that extended to the Army and the Navy as well as to the War Shipping Administration was encouraged by the President. In a White House memorandum of 19 November 1942, signed with the initials "F.D.R.," directed to the Secretary of War, the Secretary of the Navy, and the War Shipping Administration, President Roosevelt expressed concern at reports that some ships on the West Coast had sailed with short cargoes. The President was also "worried about instances where the Army and Navy supply agencies are not in complete cooperation," and with respect to the small Caribbean bases occupied jointly by the Army and Navy he wanted to know "if the supply ships going to these places carry Army and Navy supplies or whether each service carries out a separate supply service." "In other words," he concluded, "the whole purpose of this memorandum is to have a

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29 G-4 File 29717-150

re-check made on whether each ship, no matter whether it is run by Army, Navy, or War Shipping Administration is used 100% in the most efficient way."

Under date of 24 November 1942 the Secretary of War sent a reassuring reply to the President. In this reply it was admitted that some ships on the Pacific Coast had sailed light--principally because of much "ballon" cargo in the form of assembled vehicles and aircraft. The Army and Navy supply agencies were cooperating, notably in joint operations for the supply of the Caribbean bases and in the exchange of various types of cargo. Specifically, the Secretary of War noted that, "although both the Army, the Navy, and the WSA are operating ships to this area, there is very little duplication of effort or overlapping service."

On the whole, the reciprocal relationship between the Army and the Navy with respect to cargo vessels has proved helpful and satisfactory to both services. From time to time, however, there have been differences. In the spring of 1944, for example, the Chief of the Water Division, OCT, at Washington, D. C., complained to the War Shipping Administration that when there was a shortage of vessels on the West Coast, the Navy received all the ships it required, whereas the Army sustained a shortage. Col. R. M. Hicks, Chief of the Water Division concluded with these pertinent remark:

> It is imperative that ships be allocated by the War Shipping Administration to the two services in proportion to their requirements whenever it appears that the War Shipping Administration is unable to meet the full require-

ments of the services. The allocation of ships on a proportionate basis does not, of course, interfere with the local exchange of ships between the Army and Navy to meet local situations. The proportionate allocation of ships is in accord with the views expressed by the Joint Chiefs of Staff. It is therefore desired that immediate steps be taken to insure the allocation of vessels to the Army and Navy on a proportional basis.[30]

On the other hand it may be noted that in certain conferences of representatives of the armed services with the War Shipping Administration, Navy officers also complained of having been slighted.[31]

The control of Navy vessels in the service of the Army rests primarily with the Navy, although the Army generally does the loading. As a rule these vessels fall into two groups, the one consisting of ships owned by the Navy, and the other made up of vessels chartered by the Navy or allocated to it by the War Shipping Administration. Except for the allocated WSA vessels, these ships are manned, operated, maintained and repaired by the Navy. Not including the "General" type of troop transports, Navy vessels (passenger and cargo) used by the Army form a comparatively small percentage of the total number of ships so employed. As of 30 June 1942 there were 30 Navy vessels in Army service. On 30 June 1943 the number was practically

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30 See File 563.5, Letter of 6 March 1944, from Chief, Water Division, OCT, to War Shipping Administration.

31 See Minutes of Conference of 29 June 1942, at which Capt. Alexandder of the Navy and Mr. Ralph Keating of the War Shipping Adminstration "engaged in a heated discussion" because of the former's contention that the Army had received more fast ships in the Pacific than had the Navy.

unchanged--namely 32--but by 30 June 1944 it had risen to 46.[32]

British Vessels

Although their most significant contribution has been in the form of troopships[33] the British have supplied some cargo space for the United States Army, as well as occasionally an entire cargo ship--the latter being furnished at present chiefly to meet requirements of civilian supply in re-occupied areas of the European theater. The British have supplied both reefer space and desk space and on occasion have exchanged certain types of cargo (notably British steel for "balloon" cargo) to mutual advantage, with the Army and with the War Shipping Administration. Control of British ships and space rests with the British Ministry of War Transport.

Other Foreign Flag Vessels

During the spring of 1941 it became necessary to consider employing vessels of foreign registry for the shipment of Army supplies, despite Section I of the Act of April 28, 1904, which restricted the transportation of Army supplies to vessels of or belonging to the United States. Through the efforts of Colonel T.H. Dillon, Chief

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32 Figures obtained from data supplied by the Water Division, OCT.

33 In January 1942 Lord Beaverbrook evidently made an offer of shipping to the United States Army in a "whistlingly impressive interview" with General B. B. Somervell and Colonel C. P. Gross. The offer was predominantly one of troopships such as the QUEEN MARY but some cargo ships were included. See undated list of available vessels labeled in General Somervell's handwriting as a "Historical Document."

of the Transportation Division, OQMG, and after consultation with the Judge Advocate General it was decided on 10 May 1941 by the Transportation Branch, G-4, that the authority to utilize foreign flag vessels had been delegated to the War Department by the President, but that special authorization was required in each case. During the period June 1941 to March 1942 a number of authorizations of this kind were granted to the Water Transport Branch, OQMG, mainly for shipments on Norwegian vessels to the Atlantic bases. In general, such requests were made on the ground that prompt delivery could be insured only if vessels of foreign registry were employed.[34]

After the creation of the War Shipping Administration, its facilities were generally utilized to obtain space on foreign flag vessels,[35] or an entire vessel if need be, since that agency had access to shipping of all the United Nations through the Combined Shipping Adjustment Board. The Army at present has a number of passenger and cargo vessels of foreign registry that were acquired in this way, such as the freighter, ROSEBANK, a former Canadian vessel obtained on subbareboat charter from the War Shipping Administration.

Commercial Bookings and Space Charters

Commercial bookings and space charters serve to supplement the regular cargo carriers in Army service by providing transportation

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34 For further details see G-4 File 29367-102.

35 At present (May 1945) some commercial shipments are being made directly on certain small foreign flag vessels operating in the Caribbean.

for less than shipload lots. Space charters were frequently utilized by the Army, particularly in 1941 and notably in the Alaskan service. With the advent of the War Shipping Administration and the system of ship allocations described above, the executing of space charter by the Army fell into disuse and at present is of no significance.

Commercial bookings, however, have not ceased in spite of wartime hindrances to the operation of commercial vessels. Since early in 1942 the War Shipping Administration has been the principal agency through which commercial space has been obtained. Actual booking of commercial cargo is accomplished at the respective Army ports of embarkation. At present (April 1945) commercial shipments appear likely to increase, since the cessation of hostilities in certain areas doubtless will be followed by the resumption of commercial traffic. New York naturally is the port from which sail most commercial vessels. In this connection it may be noted that during the twelve months ending 31 December 1944, 22.3 per cent of all the Army cargo at the New York Port of Embarkation was loaded on 1,778 commercial vessels in space obtained by the Water Division of that installation.[36]

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36 Progress and Activities, Control and Planning Division, New York Port of Embarkation, December 1944, p. 14.

III

SPECIAL TYPES OF CARGO VESSELS

Modern mechanized warfare requires a variety of cargo that is often bulky and hard to carry in the average freighter. The Army, therefore, has had to utilize certain special types of cargo ships, whereby such diverse items as armored tanks and assorted motorized equipment, assembled or crated aircraft, ammunition, locomotives, railway cars, tugs, rescue craft, petroleum products, and even the lowly mule may be delivered to the overseas theaters. The vessels so employed usually have been altered for the purpose at hand, and only rarely have they been constructed specifically for wartime service.

Vessels of the Seatrain Type

As early as the spring of 1941 the Office of the Quartermaster General became interested in obtaining a vessel that could be used for the movement of all types of motor vehicles, heavy guns, and heavy equipment that as rule had to be carried largely on the deck of the average freighter. For this purpose the Office of the Quartermaster General (Col. T. H. Dillon) sought to purchase the car ferry HENRY M. FLAGLER in April 1941. This vessel, it was believed, would be "ideal for handling tanks of any size" as well as shipments of airplanes with the wings removed. According to a penciled note signed by Colonel Frank S. Ross of the Transportation Branch, G-4, Colonel Dillon thought that the HENRY M. FLAGLER (gross tonnage 2,699) could "operate anywhere,"

but the "front office" was "skeptical"[1] Despite a favorable recommendation to the Assistant Chief of Staff, G-4, this vessel was not acquired by the Army but instead was purchased by the Navy on 28 July 1941. During the summer of 1941 the Office of the Quartermaster General again sought, but evidentlywithout success, to acquire "some vessels of the single deck, sea train type."[2]

Strictly speaking, the HENRY M. FLAGLER was only a car ferry and not a seatrain. The seatrain originated with Mr. Graham M. Brush, who conceived the idea of a special cargo vessel which could carry loaded freight cars between ports in the United States, such as New Orleans, and Caribbean ports such as Navana, Cuba. The first vessel of this type---completed in England in 1928---was the SEATRAIN NEW ORLEANS (7,656 gross tons). The initial venture proved very successful, and subsequently in 1930 Mr. Brush built the SEATRAIN HAVANA and the SEATRAIN NEW YORK. Later, in 1940, he added the SEATRAIN NEW JERSEY and the SEATRAIN TEXAS.

As early as 1932 Mr. Brush wrote to Colonel W. C. Jones of the Quartermaster Corps and supplied certain information which the latter had requested concerning the two new seatrain vessels which were then nearing completion. In his letter dated 23 August 1933, Mr. Brush

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1 See QM File 571.2 T-W/M (Army Transports). Memorandum of 4 April 1941 from Col. T. H. Dillon to the Assistant Chief of Staff, G-4.

2 See letter, dated 8 July 1941, from Lt. Col. C. H. Kells to Mr. H. H. Robson, Maritime Commission, Washington, D. C.

stressed the possible employment of these vessels "in national emergency by the Army or the Navy." Should this prove necessary, he noted that the vessels could readily be discharged and loaded with the ordinary 100-ton salvage floating crane generally available in all large ports of the world, as well as by means of hammerhead cranes located at various ship and repair yards. Furthermore, Mr. Brush stated that "the height between the two lower decks is 15'6", thus permitting carriage of armored trains, heavy artillery and the like." Moreover, the two outer rows of stanchions had been designed to be readily removable so that the vessel could carry assembled folded-wing aircraft of the Boeing or Corsair types. "Not only," added Mr. Brush, "has the ship been designed to eliminate the boxing and handling of aircraft, but the top deck has been designed to permit easy conversion to a type of aircraft transport, which would permit such planes to fly on and off the upper deck." Lastly, he declared that the seatrains would carry any locomotive that had ever been exported from the United States for commercial or war purposes. A seatrain, he said, could transport 82 locomotives on a single voyage. Furthermore, the vessel was well adapted tothe transportation of assembled automobiles or trucks.

Mr. Brush was, indeed, prophetic in his statements of 1932, for when we entered the war, practically every advantage which he had claimed was confirmed. Apparently no immediate development followed his letter of 25 August 1932 to Colonel W. C. Jones. However, during the summer of 1941 the Navy Department acquired the SEATRAIN NEW YORK

on 25 June 1941 and the SEATRAIN HAVANA on 2 July 1941. These vessels were then redesignated as, respectively, the KITTY HAWK and the HAMMONDSPORT. Both were obtained on bareboat charter through the Maritime Commission, and both are still in the service of the Navy.

After 7 December 1941 the War Department again became interested in the seatrains.[3] This revival of interest sprang from a desire to employ seatrains to move aircraft to Hawaii and Australia. In this connection, on 16 December 1941, Admiral H. R. Stark told General D. D. Eisenhower that the Navy might be able to make available to the Army the two seatrains (the KITTY HAWK and the HAMMONDSPORT) then under Navy control. Both these vessels were due to arrive at San Diego, California, early in January 1942.[4] On 24 January of the same year the HAMMONDSPORT and the KITTY HAWK were described as "now being used by the Army."[5] These two seatrains, however, were only temporarily in Army service.

Under date of 27 January 1942 Mr. Graham M. Brush wrote to Mr. Robert A. Lovett, Assistant Secretary of War for Air, concerning the

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3 See memorandum of 8 January 1942, from Col. C. H. Kells to the U. S. Maritime Commission, requesting the procurement of four seatrains for Army use. QM File 561.1 T-W-C (Army Vessels).

4 Cf. the two memoranda of 17 December 1941 from Colonel C. P. Gross, Chief, Transportation Branch, G-4, to Colonel F. S. Ross, subject, "Movements to Copper and X."

5 G-4 File 29717-26. Letter of 24 January 1942 from Brig. General Brenon Somervell, Assistant Chief of Staff, G-4, to Admiral Emory S. Land, Chairman, U. S. Maritime Commission.

three seatrains still held by Mr. Brush's Seatrain Lines, Inc. The State Department, said Mr. Brush, had "put considerable pressure on the Maritime Commission not to transfer any more of our ships from their present trade routes." The State Department, he added, "was obviously concerned about the withdrawal of the remaining Seatrain ships from the Cuban trade because we have been and are now the largest commercial carrier in that trade, transporting many thousands of tons of commodities which would be most difficult for the ordinary type of vessel to handle, particularly in these times, as well as a considerable tonnage of certain strategic commodities that probably could find no other means of transportation." Mr. Brush, however, was reluctant to offer any definite suggestions since his own interests were involved.

Meanwhile, on 24 January 1942 Admiral Land, Chairman of the Maritime Commission, was requested by General Somervell to acquire for Army use the three remaining seatrains in commercial service. General Somervell believed that Mr. Brush was willing to turn all three seatrains over to the Government, stipulating only that they be chartered rather than purchased. No conversion was planned other than to provide certain cranes for unloading, since it was believed that these vessels "as constructed" would be "ideal for the transportation of crated planes, tanks, motor trucks and heavy bulk loads." On 2 February 1942 Admiral Land replied that the Maritime Commission was "taking steps to arrange for the acquisition, for Army use, of the vessels SEATRAIN TEXAS, SEATRAIN NEW JERSEY and SEATRAIN NEW ORLEANS."

In his request of 24 January 1942 General Somervell had stressed the Army's need of cargo vessels designed to ship the planes, tanks, and large trucks required overseas by our airmen and armored forces. Evidently some thought was given to utilizing these vessels as tank carriers, for on 5 February 1942, Mr. Paul C. Grening reported to Colonel C. H. Kells of the Water Transport Branch, that an examination of the seatrains indicated that they could carry 285 tanks, each weighing 13½ tons. Suitable lifting gear with a capacity of 60 tons should, he believed, be installed on each vessel.

Projected Construction of Seatrains for Army Use

Meanwhile during January 1942, serious consideration was given by the Assistant Chief of Staff, G-4, to the possible construction of 50 seatrains for Army use. Admiral H. L. Vickery of the Maritime Commission at first was opposed to such construction, but on 28 January 1942 he invited Colonel C. P. Gross, then Chief of the Transportation Branch, G-4, to meet with him and with two representatives (Messrs. Haig and Pew) of the Sun Shipbuilding and Dry Dock Company, the firm which built all except the very first of the seatrains. As a result of this conference it developed that any serious change in the basic design would greatly delay construction; that the Sun Company was willing to undertake such a contract, and for this purpose would construct nine new ways at its Chester, Pennsylvania plant. The Maritime Commission was to provide C3 engines and gears, and the required steel plate. The seatrain type, it was note, would carry ("with little

modification") crated planes, tanks, trucks and large and heavy cargo of any type. The top deck, however, might bemade open to take assembled planes if it were so desired. Delivery was to be made during the period February 1943 to May 1944. Accordingly, following General Somervell's r commendation, on 2 February 1942 General G. C. Marshall requested the Maritime Commission to "initiate a program to provide without delay fifty Sea Trains for military operations overseas, the ownership and operation to remain with the Maritime Commission."[6]

The Shift to the C4 Type

During thespring of 1942 there was a change of sentiment with respect to the seatrain type of vessel. In a detailed memorandum of 25 April 1942, addressed to General Somervell, Major General C. P. Gross compared the Maritime Commission C4 type of vessel with the projected seatrains. The C4 type, he noted, was faster than the seatrain (17 as against 15 knots); was safer; had greater stability; and could be loaded with greater ease and speed than could the seatrain. The C4 type could hold 200 medium tanks in the holds, whereas the seatrain could accomodate only 148. General Gross concluded that "only in carrying assembled pursuits does the Seatrain have an advantage."

Evidently under the influence of General Gross's memorandum, General Somervell informed Admiral Land that both Admiral H. L. Vickery and General C. P. Gross were convinced that the C4 type was a better

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6 For details see G-4 File 29717-133.

ship for the desired purpose than the seatrain. The C4 vessel, said General Somervell, was not "a special ship," but had general application to the whole overseas transportation problem. The Sun Shipbuilding and Dry Dock Company could undertake the work on approximately the same schedule as that previously set for the construction of the 50 seatrains. General Somervell concluded: "In view of these advantages and the known desire of your office to meet the Army's needs, the War Department requests that the proposed modification in the program to construct 50 C-4s rather than 50 Seatrains be adopted and approves such changes."[7]

The Attitude of Mr. Brush

Mr. Brush appears not to have been anxious to turn over his remaining seatrains to the War Department. During February of 1942 he conferred at Washington, D. C., with the officers of the Water Transport Branch, Transportation Division, OQMG, and in the course of the conversation requested that his vessels, if acquired, be chartered rather than purchased. In any event, he wanted to retain title, because of certain patented features that might be jeopardized when the vessels were no longer of use to the Government. Furthermore, as an alternative type, Mr. Brush suggested that the EC2 Liberty ship might well be used for the transportation of tanks.[8] Evidently some

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7 See SOS File SP 561.4. The result of this switch was the awarding of a contract to the Sun Shipbuilding and Dry Dock Company for the construction of fifty 520' armored tank carriers of the C4-S-B1 type. This contract subsequently was reduced to 20 vessels.

8 Memorandum of 7 February 1942 from Port Section to Chief, Water Tansport Branch, OQMG.

attention was paid to this suggestion, for in a memorandum of 9 April 1942 addressed to Major General C. P. Gross, Colonel J. M. Franklin discussed the capacity in tanks and planes of the EC2 type, both "as is" and "altered." He also noted the corresponding capacity of the SEATRAIN TEXAS, and concluded with the comment that further study was required.

The Army Acquires the SEATRAIN TEXAS

Despite the apparent reluctance of Mr. Brush to surrender his ships, the Army acquired the SEATRAIN TEXAS by sub-bareboat charter of 26 February 1942 from the War Shipping Administration. It was then contemplated that the vessel would be available at Baltimore, Maryland, on or about 5 March 1942 for the shipment of B26 airplanes to Australia.[9] On 4 March 1942 Colonel C. H. Kells submitted an inspection report to the Quartermaster General following a visit to the New York Port of Embarkation, where he examined the newly acquired SEATRAIN TEXAS with respect to a projected conversion, which was to require from three weeks to one month. This vessel, he noted, presented as unusual problem with regard to adequate cargo-handling equipment[10] for Army service, since normally the SEATRAIN TEXAS was dependent upon the permanent loading facilities at the terminals of the Seatrain Lines, Inc. According to Colonel Kells, because of the

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9 See G-4 File 52861.

10 One 80-ton boom and two 50-ton booms were installed on the SEATRAIN TEXAS. Originally this vessel had no self-contained loading or unloading equipment and was dependent upon shore installations to remove the loaded freight cars normally carried as cargo.

"peculiar type of construction" of the seatrains, the proper placing of armament and the installation of degaussing equipment constitued "an extensive job."

Evidently the Army still needed vessels of this special type, for by letter of 20 March 1942 General Brehon Somervell requested that Admiral E. S. Land of the War Shipping Administration make available the two remaining seatrains NEW JERSEY and NEW ORLEANS for Army use in transporting tanks and other armored vehicles. In reply, under date of 20 April 1942, Admiral Land showed some reluctance to comply with the Army's wishes. In fact, "before withdrawing the two remaining seatrains from commercial service and initiating conversion work along the line of that which had been accomplished with the SEATRAIN TEXAS," he suggested pointedly that it would be preferable to ascertain whether or not other vessels might be made available for the same purpose and prove better suited therefor.

The Caribbean Shipping Crisis

During the summer of 1942 as a result of the acute shipping crisis in the Caribbean occasioned by the intense activity of Axis submarines, the status of the two seatrains which were still in commercial service became especially significant. At an inter-departmental conference of 4 June 1942 held to consider this problem and presided over by the Under Secretary of State, Mr. Sumner Welles, the Army (Col. N. H. Vissering, Water Division, OCT) recommended that the SEATRAINS NEW JERSEY and NEW ORLEANS be placed in a permanent shuttle service between

the United States and Cuba in order to help relieve the critical food situation in the Caribbean. At this conference, as in the past, the State Department was evidently very much interested in retaining two seatrains in commercial service in order to meet the needs of the Caribbean area.[11]

The SEATRAINS NEW ORLEANS and NEW JERSEY

Apparently in connection with the continued desire of the Army to obtain one or both of the remaining seatrains in commercial use, on 1 July 1942 Mr. Graham M. Brush, President of the Seatrain Lines, Inc., wrote to Colonel Robert H. Wylie, Operations Officer, OCT, asking him to review certain facts before making any decision with respect to obtaining the SEATRAIN NEW ORLEANS for overseas service. This vessel, together with the SEATRAIN NEW JERSEY, had been requisitioned for the duration, so that Seatrain Lines, Inc. had "no financial interest" in the matter. Nevertheless, Mr. Brush wanted to point out that the SEATRAIN NEW ORLEANS was neither safe nor suitable for the work that the SEATRAIN TEXAS was performing. In support of this viewpoint he cited a number of serious defects in the SEATRAIN NEW ORLEANS which his company had tried unsuccessfully to correct.

During July 1942 the Water Division, however, continued to be interested in both the SEATRAIN NEW JERSEY and the SEATRAIN NEW ORLEANS

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11 See OCT File SPTSM 534.8-DD. Memorandum of 5 June 1942 for Col. R. H. Wylie, Operations Officer, OCT. Cf. Col. Wylie's Memorandum of 18 June 1942 to the Commanding General, New Orleans Port of Embarkation. OCT File SPTSM 401-DD (Caribbean).

SEATRAIN TEXAS

This vessel has accomplished many important wartime missions.

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ARMY

for possible emergency use, requesting that the Army have "first priority on these vessels."[12] The SEATRAIN NEW ORLEANS was never acquired by the Army, but the SEATRAIN NEW JERSEY was obtained on sub-bareboat charter by the Navy through the War Shipping Administration on 13 October 1942. Redesignated the LAKEHURST, the SEATRAIN NEW JERSEY[13] was later transferred to the Army on 22 August 1943.

The Exploits of the SEATRAIN TEXAS

Although the LAKEHURST has given good service, this vessel has never achieved the prominence attained by the SEATRAIN TEXAS. The SEATRAIN TEXAS achieved her initial fame in connection with the defeat of Rommel in the Egyptian Campaign. This was a dramatic episode in which no less a finished actor than Winston Churchill played a prominent role. While the Prime Minister was in the United States conferring with President Roosevelt in June of 1942, he received the depressing news of the fall of Tobruk and the surrender of its garrison of 25,000 men. That, said Churchill, "indeed was a dark and bitter hour for me." As a result of this disastrous turn of events the British lost much of their armored force. New tanks and new artillery had to be rushed to Egypt lest the victorious Rommel drive on to the

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12 See File SPTOW 571.22 (NEW JERSEY and NEW ORLEANS), letter of 9 July 1942 from Col. C. H. Kells, Executive, Water Division, OCT, to the War Shipping Administration, Washington, D. C.

13 Subsequently, after conversion at New York for this purpose, the SEATRAIN NEW JERSEY was employed in the North African operation. See File 565.2 "SEATRAIN NEW JERSEY."

Suez Canal. Evidently Prime Minister Churchill requested reinforcements while he was still in Washington, D. C.

By dint of working day and night American factories produced the needed equipment, and early in July 1942 a convoy was ready to sail with some 300 M4 tanks specially equipped for desert warfare; some 100 105-mm howitzers, self-propelled; a supply of ammunition; and spare parts for the mechanized equipment. The entire task was accomplished in the greatest haste and under extreme pressure. By means of periodic location reports the progress of the tanks was paced from the factories to the ports.

The convoy sailed from New York on 13 July. Some 670 miles south of Bermuda, on 16 July 1942, the convoy was intercepted by a U-boat, and the FAIRPORT, a new vessel, was torpedoed without warning, sinking within fifteen minutes.[14] There was no loss of life aboard, but all the mechanized equipment on the FAIRPORT went to the bottom, including 86 tanks and considerable ammunition.

Immediately upon receiving confirmation of the loss of the FAIRPORT, Colonel Robert H. Wylie, Operations Officer, Transportation Service, Washington, D. C., discussed the matter of the replacement of the cargo with General LeRoy Lutes. It was recommended that the SEATRAIN TEXAS be used for this mission, since this vessel was then in port at New York. With the approval of General Lutes and of General

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14 The FAIRPORT, built in April 1942, was 449 feet long overall, had a speed of 17 knots, a deadweight tonnage of 10,850, and was allocated to the Army by the War Shipping Administration.

Somervell the SEATRAIN TEXAS was also loaded with a number of locomotives for the Persian Gulf, after having taken a priority load to replace the material lost on the FAIRPORT. Colonel Ottzenn, Superintendent of the Army Transport Service at New York was advised of the matter and was asked to get advice from Mr. Grahan Brush on handling locomotives on the seatrain. Although the sailing date had been set for approximately 25 July, the SEATRAIN TEXAS did not leave New York until 29 July 1942.

The ensuing voyage has become almost a legend because of the speed and dispatch with which it was accomplished. The SEATRAIN TEXAS sailed unescorted through sub-infested waters, across the Sotuh Atlantic and around the Cape of Good Hope. She overtook the convoy but did not join it. Although it is generally stated that the SEATRAIN TEXAS made the trip entirely without escort, excerpts from the log of the vessel show that she proceeded via Capetown and was escorted for approximately a day and a half by a small French corvette while passing through the Mozambique Channel. Shortly before reaching the Gulf of Aden, the officers aboard the SEATRAIN TEXAS saw the flash and explosion of a torpedoed vessel approximately 20 miles distant.

The SEATRAIN TEXAS arrived at Suez on 8 September 1942, where the tanks were unloaded in record time by use of the ship's gear. Subsequently, at El Alamein the British turned back Rommel, but much of the credit for the latter's defeat was given to the new equipment delivered by the SEATRAIN TEXAS and the other vessels of the original convoy, all of which r ached Egypt in safety. The British were quick

to acknowledge their appreciation. Under date of 7 November 1942 the late Field Marshal Sir John Dill of the British Joint Staff Mission in Washington, D. C. sent the following note in longhand to General Somervell:

> "I hope you realize the important part you have played in this battle in Egypt. I will never forget what you did to get those M-4 tanks out inthe quickest possible time and complete."

The SEATRAIN TEXAS has continued in the service of the Army, performing a variety of missions. More recently, this vessel together with the LAKEHURST was requested to move some 350 locomotives to the European Theater of Operations.[15] Throughout the years 1942-45, both seatrains have fully confirmed the opinion of their wartime value held by their owner as long ago as 1932.

Improvised Seatrains

Obviously the two seatrains in Army service are far from adequate for the many special jobs that can be performed by such vessels. Consequently, a number of improvised seatrains have been employed in the overseas theaters. After the invasion of France in June 1944 there was a temporary surplus of LSTs in both England and the United States. According to Major C. N. Fuller, Executive Officer of the 500th Port Battalion, the Transportation Corps conceived the idea of converting these LSTs into modified seatrains to transport freight cars from

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15 Minutes of Operations Meeting, OCT, 27 November 1944.

England to France.[16] By December 1944 some 20,000 box, gondola, and freight cars had been ferried across the English Channel by means of these improvised seatrains.[17] Similar improvised LSTs have been used in the Mediterranean at two points, namely to transfer railway cars from Oran in North Africa to Marseille in France and, secondly, from Bizerte in North Africa to Reggio Calabria in Italy. The LST appears to have been well adapted for this purpose and to have given good results.[18]

Car ferries have been used frequently to move railroad equipment in the overseas theaters.[19] Strictly speaking, such vessels are not to be compared with the regular seatrains. The LSTs, however, in one respect are superior to the seatrains. Because of their comparatively shallow draft they can tie up readily at emergency landing places and discharge their cargo over the ramp onto the beach.

Vehicle Ships

The current conflict has been marked by large movements of vehicles

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16 The employment of converted LSTs as car ferries in support of an invasion of Europe had already been contemplated as early as July 1943. See Memorandum of 29 July 1943 from Chief, Ocean Traffic Branch, Water Division, OCT, to the Assistant Chief of Transportation for Operations. OCT File SPTOW 370.2 T.

17 For details see Positive Intelligence Bulletin, OCT, No. 17, 1 March 1945, p. 16.

18 For details see Transportation News Letter, Office of the Chief of Transportation, Mediterranean Theater of Operations, vol. I, no. 25, 5 March 1945, p. 2; and No. 28, 26 March 1945, p. 2.

19 These have included the vessels which in peacetime ferried "sleepers" between Dover and Calais. Cf. A TWO-YEARS' HISTORY OF THE 14th PORT, 25 February 1943 to 25 February 1945, p. 7. Certain car floats previously used at East Coast ports of the United States were dispatched to the United Kingdom for similar service.

resulting in what the Germans have appropriately called "Blitzkrieg." The emphasis on vehicles was evident in the United States Army even before our entry into the present war. A considerable part of the cargo, for example, that was sent to the Philippines in the fall of 1941 consisted of motor vehicles. As of 1 January 1942 in a memorandum for the Motor Section of the Transportation Branch, G-4, Lt. Col. F. S. Ross stated that "the largest single item now being transported by the Army Transport Service is motor vehicles."

In order to deliver overseas the ever-increasing number of vehicles, the Army has resorted to every possible device. Wherever possible, vehicles are loaded on the same ship with the organization to which they belong. Such loading is not always feasible, and for this reason vehicles have been loaded regularly on freighters both below and above deck. Vehicles, however, always have presented a stowage problem. Being "balloon cargo," they take up considerable space in proportion to their weight, and so require careful attention to proper ballasting of the vessel.

Strictly speaking, the Army has never had a vessel that could properly be called a vehicle ship. On the other hand, many vessels have been loaded almost solely with vehicles, and the tendency has been to refer to such craft as vehicle ships. Throughout 1942 until well into 1944 a steady stream of vehicles was sent first to the United Kingdom and then to North Africa and to Italy and France in support of expanding operations. The techniques developed in the loading of this tremendous aggregation of vehicles are beyond the

province of this study. It may be of interest, however, to note a number of craft which have carried so many vehicles that they might well be termed vehicle ships.

Aside from the seatrains, which have transported many armored vehicles (particularly tanks and other large pieces of wheeled equipment) most vehicles shipped overseas have gone on ordinary cargo ships and especially on Liberty vessels.

In preparation for the invasion of Normandy a number of so-called special vehicle ships were loaded at certain East Coast ports, notably at Boston and Philadelphia. These vessels were designated as SV ships.[20] They (eight, all told) were to be discharged at the port of Stranraer in southeastern Scotland, and they were sent in compliance with a request from Major General Frank S. Ross, Chief of Transportation, SOS, European Theater of Operations. Subsequent teletypes and radiograms referred to these eight ships as Stranraer vessels, and for this reason they were known as SV vessels meaning thereby Stranraer vehicle vessels.[21]

In connection with the invasion of the Continent, a number of vessels were specially prepared for further operational use in the European Theater, primarily for the delivery of vehicles from England to France. Approximately 140 Liberty ships were involved. These

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20 Memorandum of 25 May 1944 from Lt. Col. A. G. Syran to Major J. F. Gillen, Ocean Traffic Branch, Water Division, OCT.

21 Memorandum of 8 June 1944 from Lt. Col. A. G. Syran, Chief, Ocean Traffic Branch, to Col. R. M. Hicks, Chief, Water Division, OCT.

vessels were to be allocated to the War Department beginning early in March 1944, and they were to be specially ballasted with some 1,670 tons of dry sand ballast in the following manner:

No. 2 Hatch - 400 tons of dry sand (or up to the turn of the bilge)
No. 3 Hatch - 500 tons (or up to the turn of the bilge)
No. 4 Hatch - 600 tons (or up to the top of the shaft alley)
No. 5 Hatch - 570 tons (or up to the top of the shaft alley)

The War Shipping Administration was to attend to the ballasting, the purpose of which was to provide a maximum floor space for the vehicles to be transported, as well as weight for the vessel.

It is difficult to visualize the huge number of vehicles required for the invasion of Normandy. In an address before the New York Herald Tribune Forum, Lt. General Brehon Somervell, Commanding General, Army Service Forces, disclosed that during the first 109 days of the invasion the Allies landed more than half a million vehicles, at the almost unbelievable rate of four vehicles a minute day and night.[22] During 1944 the vehicle requirements of the Army remained heavy in all theaters. In the European Theater alone, as of November 1944 the losses per month amounted to 500 tanks and 900 trucks.[23]

Historical reports compiled by the 14th Port, stationed at Southampton, England, reveal many details concerning the vehicle ships, or MTVs (motor transport vessels), as they were frequently called. The largest single type of outloading done at this port during the first few weeks

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22 See the New York Herald Tribune, 17 October 1944

23 Cf. Immediate Release of 13 November 1944 by the Under Secretary of War, Washington, D. C.

after D-Day involved such craft. Actually, these motor transport vessels were Liberty ships which had been converted into vehicle ferries, each of which was capable of carrying an average load of 120 vehicles. Four hatches of each ship were loaded with vehicles, while the fifth was utilized as quarters for the drivers and their assistants.

From D-Day through 31 January 1945, some 220,675 vehicles were shipped from Southampton, of which no fewer than 127,284 were shipped on motor transport vessels. The first MTVs were loaded at the 14th Port on 7 June 1944, the day after D-Day, when speed and efficiency meant everything for the success of the operation.[24] On 22 March 1945 the motor transport vessel JOHN STEVENSON was loaded with 182 vehicles and 31 personnel. This was the last MTV loaded by the 14th Port. During the period from June 1944 to March 1945 a record time of three hours flat was established for loading an MTV.[25]

Although, for the most part, Liberty ships served as vehicle carriers, other vessels have also been utilized for this purpose. In addition to the so-called Coasters, use has been made of Navy vessels, particularly LSTs (Landing Ship, Tank) and LCTs (Landing Craft, Tank). The LSTs could be largely "self-loaded" and were therefore used to accomodate equipment of odd sizes and tanks of varying weights. The LCTs, on the other hand, were open single deck craft

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24 See A TWO-YEARS' HISTORY of the 14th PORT, 25 February 1943 to 25 February 1945, p. 20.

25 See Historical Report, 14th Port, March 1945, pp. 2-3.

that proved admirable for the transportation of vehicles.

Vehicle ships were used extensively for the invasion of Southern France. Known as the Anvil operation, this project was first planned early in 1944, was dropped in the spring of the same year, but was revived in Jun 1944. Ultimately about 150 cargo ships of the Liberty type were involved, which were loaded mainly at the New York and Hampton Roads Ports of Embarkation. The original plan was to use sand as ballast, as had been done on the ships employed for the Normandy invasion, but Colonel A. D. Warwick, then Chief of the Stevedoring and Ship Facilities Branch, Water Division, OCT, at Washington D. C. did not approve, since he believed that cargo could be used as ballast.

The vessels used in the Anvil operation were generally known as "flatted" ships. The term "flatted" is of British orign and refers to the placing of flooring over the ballast so as to provide space for a maximum number of vehicles. The "flatted" cargo consisted of some 600 measurement tons equally divided between subsistence and ammunition. On the outbound voyage from the United States these vessels were loaded in the space above the flooring with regular cargo, which was removed upon arrival in the theater. The purpose of this arrangement was to substitute for ballast cargo that would form a floating reserve which could be used in case of emergency, since there was some question as to the supply available in Southern France.

Ammunition Ships

Modern warfare necessitates the expenditure of almost incredible

amounts of ammunition, the storing and shipping of which entail many bazards. Prior to American entry into the war the Assistant Chief of Staff, G-4, had already given some attention to thenecessity of providing loading facilities at various points--preferably in isolated areas in order to reduce the risk involved.[26]

In August 1941 by direction of theSecretary of War the Adjutant General announced that the provisions of the prevailing Army regulations (AR 30-1270) were to be waived to authorize the shipment of explosives and inflammables on any Army transport bound for an overseas department or base. It was provided, however, that only military personnel, male civilian employees of the War Department, and other male officers or employees of other governmental departments were to be transported on such vessels, but all such persons were to travel at their own rish when explosives and inflammables were carried.[27]

With the outbreak of the war the need of ammunition ships was definitely brought to the fore. The Water Transport Branch, OQMG, had long anticipated the need of an ammunition carrier, and had therefore procured the freighter, WEST ELCASCO, from the Maritime Commission late in 1940. Plans and specifications called for completion of the required conversion about 1 July 1941.

The WEST ELCASCO was transferred to the War Department on an

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26 See Memorandum of Record of 28 July 1941 by Mr. F. J. Haley concerning a projected munitions landing facility near Baltimore, Maryland.

27 See AG File 541.2 and G-4 File 20912-5.

"as is, where is" basis. The Maritime Commission was to arrange for the necessary changes and alterations to adapt the vessel for the carriage of ammunition, but with the understanding that the War Department would furnish information to facilitate the features relating to ammunition stowage. Upon delivery of the completed vessel the War Department was to reimburse the Maritime Commission for its entire expenditure incident to reconditioning, manning, equipping and making the WEST ELCASCO ready for sea, including the cost of all additional work accomplished in connection with conversion into an ammunition carrier.[28]

The WEST ELCASCO, a cargo ship of 5,766 gross tons, was built in 1918 by the Seattle, Washington, firm of Skinner and Eddy. She was one of the "West type" vessels developed during World War I. When acquired by the Army, the WEST ELCASCO was part of a fleet of ships which had been laid up at New Orleans for a number of years. For Army service the vessel was renamed the USAT HENRY GIBBINS. The conversion was accomplished at New Orleans, and formal delivery of the completed vessel was made on 12 July 1941.

The HENRY GIBBINS, ex-WEST ELCASCO, is notable as the only ammunition carrier specially prepared as such for Army service in the current conflict. Every effort was put forth to expedite completion of the conversion, and the ship was provided with several unusual

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28 See letter of 3 March 1941 from Admiral E. S. Land, Chairman, United States Maritime Commission, to the Secretary of War. The Secretary of War accepted Admiral Land's terms and conditions by letter of 12 March 1941.

features, including elaborate fire-detecting and extinguishing equipment. Thus, there was installed an open sprinkler system so arranged that all exposed surfaces of each cargo space aboard could be drenched. Appropriate advice was obtained on all essential points from the Navy Department, the Chief of Ordnance of the War Department, and the Bureau of Marine Inspection and Navigation of the Department of Commerce.

In addition to a general rehabilitation of the ship, the following special features were necessary: construction of several small magazines for special explosives; sheathing of all metal girders, pillars and the like in the various compartments; insulation where needed for protection against heat; and steel hatch covers for protection against possible machine gun fire from airplanes. Lastly, additional electric generator capacity had to be provided, together with adequate armament and degaussing equipment.[29]

Although details are lacking, it appears that the HENRY GIBBINS was intended primarily to transport ammunition to Panama, a base which became increasingly important during the hectic days of 1941, particularly after the attack on Pearl Harbor. According to Lt. Colonel C. H. Kells of the Water Transport Branch, OQMG, this vessel could not be assigned permanently to the New Orleans Port of Embarkation because "she may have to be used for other missions" for which, he noted,

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29 From data on the HENRY GIBBINS preserved in the working file of the Maintenance and Repair Branch, Water Division, OCT.

"she was originally fitted."[30] However, as of December 1941 and as long as other special missions were not necessary, Lt. Colonel Kells was willing to assign the vessel to this port.

The HENRY GIBBINS continued in service from New Orleans to the Caribbean bases during the spring and summer of 1942, carrying ammunition outbound and general cargo inbound. On 11 June 1942, the vessel left Panama for New Orleans. She went aground off the coast of Nicaragua on 15 June but was refloated, and continued on her voyage. On 23 June while still en route to New Orleans with a cargo composed chiefly of coffee, the HENRY GIBBINS was struck by two torpedoes and sunk shortly thereafter. All hands were rescued and brought to a Florida port.

Although a number of vessels have been called ammunition ships, none in the service of the Army has been prepared specifically for dangerous cargo such as was the HENRY GIBBINS. The average ammunition ship of today is distinguished chiefly by being loaded predominantly with ammunition, for which some protection has been provided by wooden sheathing within the holds and by careful loading. To date, the Army has been exceptionally fortunate with respect to its ammunition ships. It should be noted, however, that at Caven Point on 24 April 1943 the ammunition ship EL ESTERO caught fire and had to be towed into the harbor and sunk. More recently, on 9 April 1945 at

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30 Letter of 22 December 1941 from Lt. Col. C. H. Kells to Superintendent, Army Transport Service, New Orleans Port of Embarkation.

Bari, Italy, the CHARLES HENDERSON, an Army allocated cargo vessel loaded with bombs, suddenly exploded, resulting in a heavy loss of life and extensive damage to harbor facilities.

Animal Transports.

Contrary to all expectations the present mechanized war has by no means eliminated animal transports with which the Army has long been familiar. During the War with Spain a number of ships were equipped for the transportation of horses, by means of wooden stalls built in the 'tween deck spaces. In addition, animals were carried on the open deck, where a canvas covered shelter was provided for protection from the elements. On the ships of 1898 the animals usually were placed above the troops, since it was considered "that if any annoyance should arise by reason of carrying animals and men on the same ship that the smell of animals would be less likely to effect the men if they were carried above the troops than if the animals were underneath the men." It was also believed that this arrangement afforded an economy of space because animals could be stowen on open decks that could not be used for the carriage of troops. It appears that mainly horses were transported during the War with Spain, and it may be recalled that the cavalry had an important role in thiswar.[31]

Animal transport also played an important part in the waging of

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31 For details of the animal transports used in the War with Spain see Report of the Commission appointed by the President to Investigate the Conduct of the War Department in the War with Spain, vol. I, pp. 499-500.

World War I. Among the vessels on the first convoy which left New York for France in 1917 were several animal transports. These were hastily converted cargo vessels for which ramps and stalls were built by the Army Transport Service. Approximately 3,000 animals were accomodated on the first convoy.[32] The annual report of the Chief of Transportation Service for 1919 shows that the Army as of thatdate had shipped overseas 37, 605 horses and mules, and when hostilities ceased was shipping animals at the rate of 20,000 per month. As in the War with Spain, vessels had to be fitted specially for this service, and the necessary arrangements made for the care and feeding of the animals enroute.[33]

At the close of World War I, except for domestic use, animal transportation by the Army was of minor significance. However, from time to time animals were transported overseas, notably riding horses for officers stationed at overseas bases. For this purpose during the 1930's the two Army-owned freighters, the LUDINGTON and the MEIGS, proved useful. The LUDINGTON apparently was not used to any considerable extent for such service, but the transport MEIGS was refitted specifically as an animal and cargo carrier with a normal capacity of some 300 animals and 6,800 measurement tons of cargo. The MEIGS operated in the Pacific, principally between San Francisco, Hawaii and Manila.

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32 See Bendict Crowell and Robert F. Wilson, The Road to France, vol. II, (New Haven, 1921) p. 316.

33 Report of Chief of Transportation Service, 1919, p. 89.

As already indicated, animals have proved necessary even in the present hgihly mechanized warfare. During the North African campaign some mules were employed. When our forces pushed on to the island of Sicily it was found necessary to utilize several thousand pack animals (mules, horses and donkeys) to carry on the campaign in the rough terrain near Cefalu, Callanissetta, Catania, and Messina.[34] As our Armies progressed into Italy still further need was found of animal transport, because of the mountainous terrain and the lack of roads or trails, which necessitated an increasing use of pack trains. As early as September 1943, Lt General Mark W. Clark of the Fifth Army anticipated an increasing need of "more of this type of transport." [35] As the Fifth Army continued its long trek up the Italian peninsula, more and more reliance had to be placed on animal transport.[36] It appears,however, that the animals then utilized in North Africa, in Sicily and In Italy proper were procured locally rather than transported from the United States.

In the meantime, the same sterling qualities of the mule which had long been known to the Army and had been reaffirmed in the dreary Italian campaign, resulted in a decision to use mules in the Pacific theater. Mules, it was discovered, were excellent for combat since

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34 For details see Report of the Operations of the Seventh Army in the Sicilian Campaign, G4 Section, Appendix "H" to Transportation Report.

35 See Fifth Army History, Part II, 7 October - 15 November 1943, p. 67.

36 Cf. Ibid., Part III, 16 November 1943 - 16 January 1944, p. 68.

they remained quiet under fire and could be worked even when slightly wounded as by Shrapnel. On occasion when the unit ran out of rations the animals could be killed and eaten since mule steaks were said to be palatable and nourishing. Finally, mules were largely immune to tropical diseases.[37] On the other hand horses as a rule have not been taken overseas with cavalry units. In addition to shipping difficulties, horses accustomed to tropical climates would probably get sick and be of little use. Accordingly, when horses are needed the Army has resorted to local procurement.

The first important instances of shipment of animals during the present war was that made on the M/S TJINEGARA, a vessel of 9,227 gross tons, of Dutch registry. This vessel was manned by Dutch officers and a Chinese crew but was allocated to the Army Transport Service by the War Shipping Administration, and delivered to the Army Transport Service at New Orleans on 27 April 1942 for conversion to an animal transport for the movement of mules to Australia. Work was begun at once on the installation of stalls and the provision of feeding and watering facilities.

Upon learning of the new mission of the vessel the original Chinese crew staged a sit-down strike, refused to sail and had to be removed from the vessel. A new crew was then secured consisting of

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37 See report No. 758, entitled "Mules in Burma Jungle Warfare," dated 19 December 1944, and based upon an interview with a mule driver who had served in New Guinea and in Burma. See copy in AGO Combat Analysis Files.

Lascars, who were supplied by the agents of the vessel. In addition to installing the required physical facilities for the quartering and maintenance of the animals enroute, the Army furnished a Quartermaster and a Veterinary Detachment to care for the animals. When the conversion was completed, 100 mules were loaded together with miscellaneous cargo and on 1 June 1942 the TJINEGARA left New Orleans. One week later the vessel arrived in the Canal Zone, and after loading 381 additional mules at Panama and obtaining sufficient forage, water and other cargo, she left Balboa on 15 June for Noumea, New Caledonia. The vessel arrived safely at Noumea 6 July 1942 without losing a single animal enroute. After the discharge of cargo in New Caledonia the transport proceeded to Brisbane, Australia where she loaded about 400 horses for return to New Caledonia. While enroute on 25 July 1942, at about 11:20 p.m., the TJINEGARA was torpeoded and sunk.[38] All hands were rescued but all the horses were lost.

During 1943 the Army continued to transport mules to the Pacific theaters. These animals were shipped principally from Hampton Roads, Charleston and New Orleans. Calcutta served as the port of debarkation for India, Burma, and China. Some difficulty was experienced with regard to loading mules on the forward portion of the deck since they suffered from undue exposure to the weather, and since the stalls

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38 See History, New Orleans Port of Embarkation, Book IV.

were not of sufficiently rugged construction to withstand a North Atlantic crossing during the fall and winter months. It was also a problem to secure proper ventilation for the animals loaded below deck.[39]

The need of mules continued throughout the fall of 1943 and into 1944. There were some losses, notably the Liberty ship JOSE ANTONIO NAVARRO, which was sunk by enemy action in the Indian Ocean on 3 December 1943. The animal transports consisted mostly of converted Liberty ships and older cargo vessels. During the spring of 1944 a number of ships were surveyed with respect to possible use as animal carriers. At New Orleans, for instance, among the vessels considered at this time were the FLORIDAN, which it was believed could be converted readily into a mule carrier, and the KANSAN which appeared suitable for the same purpose. The source of all these vessels was the War Shipping Administration, and they usually carried some cargo such as cement and beer on the long passage to India.

Conversion was handled by the War Shipping Administration, and for Liberty Ships the process involved only some three weeks of labor. During June 1944 several Liberty ships were nominated for conversion into mule carriers, notably the CYRUS W. FIELD, the HENRY DEARBORN, and the ZONA GALE. All these vessels were to have a capacity of 320 mules, and the conversion consisted mainly of adding stalls, hay racks,

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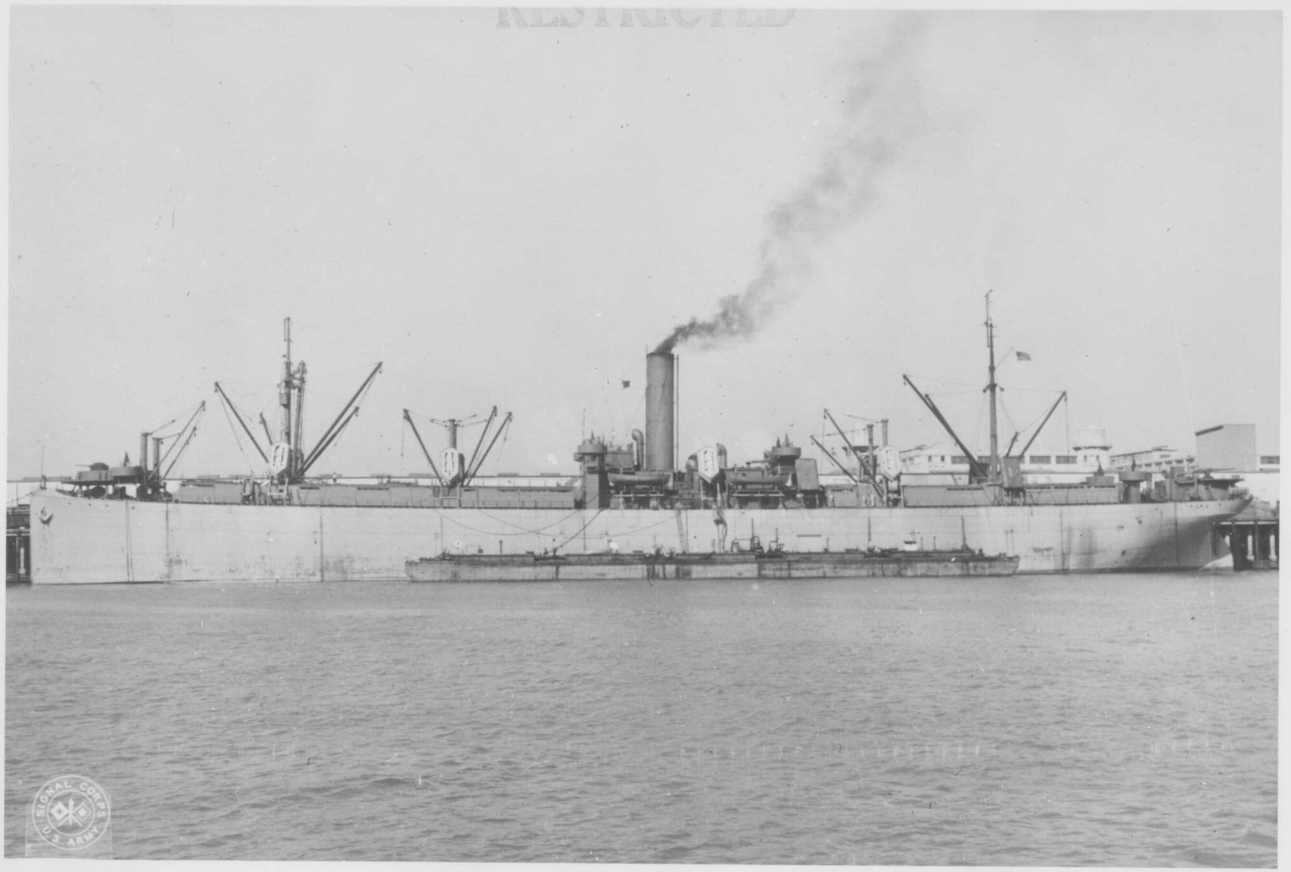
39 Memorandum for the Diary, entitled "Mules for Mountbatten," by Col. N. H. Vissering, Chief, Ocean Traffic Branch, Water Division, OCT, dated 11 November 1943.



MEXICAN.

Bound for the Pacific, this large mule ship sailed from the New Orleans Port of Embarkation on 22 October 1944.

and watering facilities.[40] The permanent military detachment on such a vessel consisted of 10 officers and 80 enlisted men. Ultimately the size of this detachment was cut to 5 officers and 55 enlisted men.

As an example of a conversion of an old cargo vessel may be mentioned the MEXICAN. This vessel was converted by the War Shipping Administration under the supervision of the Water Division at the New Orleans Port of Embarkation. Conversion was begun late in August and completed in October 1944. After laying out the approximate space to be occupied by the animals in their respective decks and holds, it was necessary to decide how the animals would be placed in the respective sections. This proved a problem since the ship was equipped with a degaussing system and the degaussing plant in one instance was about three feet above the floor of the deck. Among other things, watertight doors had to be constructed in several of the bulkheads. Cross-over ramps were placed on the shelter deck and on the main afterdeck, so as to permit the movement of animals from one side of the vessel to the other, thus providing needed exercise while enroute. On the MEXICAN were placed a total of 695 stalls, were placed as follows: main deck 184, upper 'tween deck 220, lower 'tween deck, 291.

The MEXICAN was provided with the best type scupper so far de-

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40 Conversion cost totaled some $320,000 for each of these Liberty ships, according to figures supplied by the War Shipping Administration.

veloped, 5 inches wide with ball type valves and triple type strainers built into each deck. Manure ports were not installed on this ship, since they would have reduced materially the cargo carrying capacity, and since it was considered more practical to remove refuse, straw and hay up through the hatches to be thrown overside than to sacrifice cargo space for the convenience of having manure ports below deck. Since the distance between the decks on this vessel was not so great as that between the decks of a Liberty ship, it was possible to provide much shorter ramps. When completed the MEXICAN was "essentially an excellent floating barn." This vessel was loaded with 644 animals in some four hours and fifteen minutes. Carrying two Veterinary Companies (Sep.) made up of colored personnel who were placed aboard to handle the mules, late in the afternoon of 22 October 1944 the MEXICAN slowly headed down the Mississippi on her long voyage into the Pacific.[41]

Some animals also were transported from San Francisco and Los Angeles. At these ports the animals were generally staged for a period following their arrival from the training center or remount depot, during which they were prepared for ocean travel and examined to determine their physical condition for the long journey ahead. One difficulty encountered at the ports was the scarcity of expereinced qualified attendants, since the Army men of today are usually far

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41 History, New Orleans Port of Embarkation, Book XX, "Conversion of USS MEXICAN."

better acquainted with vehicles than with mules. The loading of the mules required expert handling and on occasion the use of a mare to lead the animals on to the ship.

During 1944 a considerable number of vessels were allocated by the War Shipping Administration for use as mule carriers. On 30 October 1944, for instance, the War Shipping Administration announced that 17 vessels had been allocated to the War Department for this purpose, of which 13 were Liberty ships and the remaining four miscellaneous cargo vessels. The accomodations for the mules varied in number from 320 regular stalls and 16 sick bay stalls to 699 stalls with 32 for sick bay use. Quarters also were provided for from 86 to 125 enlisted men. On these ships the stalls were built athwartship since experiments indicated that mules transported in this manner did not suffer from seasickness.[42]

Early in 1945 a new program was set up to transport approximately 7,120 pack mules from the United States to Italy in order to meet the requirements of the 10th Mountain Division, while an additional 500 animals per month were desired as replacements. For this purpose nine mule ships were withdrawn from the regular Burma-India run, of which the first, the SS WILLIAM J. PALMER, arrived in the theater early in March 1945.[43]

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42 Marine Age, November 1944, p. 19.

43 See Transportation News Letter, Office of the Chief of Transportation, Mediterranean Theater of Operations, vol. I., No. 25, 5 March 1945, p. 4.

Originally the purchase of mules from Portugal was considered but was abandoned when it was learned that better animals could be procured and transported from the United States at less than the cost of Portugese mules. The Mediterranean Theater, it may be added, has had considerable experience in animal transport by water, having moved many horses and mules from North Africa to Sicily and Italy. The mule ship SAMUEL WALKER, for example, was fitted out by the 8th Port in Naples so as to lift a capacity load of approximately 600 mules from North Africa to Southern France. Prior to this conversion the SAMUEL WALKER had arrived in the theater with a shipment of some 300 animals for the 10th Mountain Division. Naturally, fewer animals can be accomodated on the long voyage over the Atlantic Ocean than can be carried on comparatively short trips across the Mediterranean.[44]

Although the use of mules is only temporary, it is possible that more of them may be required in the Pacific area. At present, however, the close of the Italian campaign has eliminated the need of additional mules in that area. As of May 1945 mule shipments for India, Burma and China had also ceased, and the mule ships were being put to other uses. In passing it should be noted that the Transportation Corps has shipped overseas not only mules but also goats, pigeons, and dogs. The dogs and pigeons travel in crates which can be placed

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[44] Ibid., vol. I, no. 28, 26 March 1945, p. 2.

on deck or in the hold and do not therefore require special facilities as do the mules. Lastly, in the fall of 1944 the Transportation Corps arranged for the shipment of an Indian rhinoceros from Calcutta to the United States aboard the mule carrier VIRGINIAN, but the animal died enroute.

Aircraft Cargo Carriers

Although no other type of cargo has enjoyed a higher priority during the present conflict than aircraft, its shipment overseas has presented many problems. In general, two methods of delivery have been employed. Bombers as a rule have been blown directly overseas on various routes along which emergency landings could be made. Generally speaking, however, fighter type planes have been shipped by water, either assembled (except for the removal of wing tips and propellers) or crated.

The shipment of airplanes both as deck cargo and in crated form was contemplated by the Army Transport Service well in advance of World War II. During the fiscal year 1931 the Army cargo transport LUDINGTON, ex-JAMES OTIS, was acquired by the Quartermaster General to meet a special requirement, specifically "a hatch or hatches of sufficient size to permit the loading of cases containing parts of airplanes."[45] (The largest hatch on the Ludington is 48 by 24 feet in size, making possible the loading of the largest single shipment

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45 See Annual Report, Quartermaster General, 1931, pp. 53-54.

yet offered as of 1931.) In this connection, it may be noted that, early in December 1941, this same vessel was carrying twenty P-40 pursuit planes to the Philippines. The importance then attached to the delivery of this cargo was so great that the LUDINGTON was allowed to run the risk of an unescorted voyage from Canton Island.[46]

During the fall of 1941 the San Francisco Port of Embarkation was busily engaged in shipping airplanes to the Philippines. The two Army-owned freighters, the MEIGS and the LUDINGTON, were both used for this purpose. When the news was received of the attack on Pearl Harbor, frantic efforts were made to load aircraft on all available ships in order to reinforce the American outposts in the Pacific. The airplanes involved were principally P-39s and P-40s. Of particular note was the so-called P-Special (the PRESIDENT POLK), which sailed from San Francisco on the evening of 18 December 1941, heavily loaded with ammunition, subsistence, and 59 airplanes, of which 55 were P-40s and four were C-53s.[47] The steady flow of aircraft to the Pacific, was continued throughout the war years to the extent permitted by available planes and shipping facilties and the competing demands of other theaters.

Early in the present war the problem arose as to how the ship-

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46 Subsequently, the LUDINGTON was diverted, returning to Los Angeles on 23 December 1941, where the 20 airplanes were discharged.

47 See recorded telephone message from San Francisco Port of Embarkation to Transportation Branch, G-4, at Washington, D. C., 18 December 1941.

ment of airplanes could be accelerated. At first practically all planes were shipped crated, but the P-38 type had to be sent uncrated because of its size and wing spread. One difficulty in crating and loading of airplanes was that every ocean-going vessel constituted an individual problem with respect to the size of the hatches, the holds and the 'tween deck spaces. Nor did the size of the vessel necessarily indicate the number of airplanes that could be accomodated. Thus the PRESIDENT COOLIDGE was able to carry between 25 and 30 crated P-40 pursuit planes, whereas the MORMACSUN, a smaller vessel, could carry some 67.

Lastly, no uniform system of crating airplanes had been developed. The boxes used for a single typevaried by as much as six feet in length. Accordingly, early in 1942 the Assistant Chief of Staff, G-4, urged that the Chief of the Air Corps be directed to adopt every practicable means so as to conserve space on transports, and that he initiate action withoutdelay to insure that airplanes destined for overseas shipment be crated so as to occupy the smallest possible space. Finally, it was requested that the loading of wings on their sides be permitted even at the risk of rendering some airplanes ineffective because of damage to a wing.[48]

General Brehon Somervell, Assistant Chief of Staff, G-4, continued to demand that the Air Corps crate airplanes so as to economize on ship space. On 18 January 1942 he requested that Colonel C. P.

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48 See G-4 File 27277-113, Memorandum of 5 January 1942 from the Assistant Chief of Staff, G-4, for the Chief of Staff.

Gross, Chief of the Transportation Branch, G-4, advise him as to what action, if any, had been taken by the Air Corps. On the following day Colonel A. L. Hamblen, Deputy Chief of the Transportation Branch, reported that the Chief of the Army Air Forces was still working upon this question but was unable to give much help at this time. "The planes," he remarked,"were built to fly away and no one considered that any might be shipped by boat." Furthermore, it was claimed that if the airplanes were disassembled any further, highly skilled mechanics and special equipment would be needed for reassembly.

In addition to attempting to improve the crating of airplanes, a new type of transport was placed in service in order to carry airplanes overseas. On 25 January 1942 at a conference held in the Office of Brig. General L. T. Gerow, then Chief of the War Plans Division, at which General Carl Spaatz of the Army Air Forces also was present, it was agreed that all B-26 airplanes destined for Australia were to be shipped from the West Coast to Honolulu and flown from that point to destination. Furthermore, the Transportation Branch, G-4, was to utilize the seatrain KITTY HAWK to move B-26s to Hawaii from the West Coast, although advantage was to be taken of any other available space to transport planes to that area. The Army Air Forces were to secure civilian technicians from certain airplanes manufacturers in order to crate B-26s on the West Coast and to assemble them upon arrival in Honolulu. The Transportation Branch, G-4, was to secure water transportation for such technicians to Hawaii.[49]

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[49] See G-4 File 33882

Similarly, during February 1942 the Assistant Chief of Staff, G-4, Major General Brehon Somervell, wrote to Admiral Land of the Maritime Commission stating that the War Department was considering the necessity for increased facilities for shipping airplanes, particularly bombers of the B-26 type and pursuit planes, from the West Coast to Australia. In furtherance of this project a number of desirable freighters had been surveyed, and the names of several vessels were obtained which were considered "capable of carrying reasonably large numbers of bombers of the B-26 type" as well as "considerably large numbers" of pursuit planes. Among the vessels believed capable of carrying from 20 to 25 planes of the B-26 type or 70 to 150 of the pursuit type were listed the MORMACSUN, the MORMACSTAR, the MORMACSEA, the ANDREA LUCKENBACH, the PENNANT and the PERIDA, which were then under Army control; and four vessels under Navy control, namely the HAWAIIAN MERCHANT, the HAWAIIAN PLANTER and two seatrains, the KITTY HAWK and the HAMMONDSPORT.[50] Later in the same month it was contemplated that the SEATRAIN TEXAS would be available to load B-26 airplanes at Baltimore early in March 1942 for shipment to Australia.[51] For the period from 7 December 1941 to the close of February 1942, by dint of strenuous effort the Army had succeeded in embarking for overseas destinations some 825 planes.[52]

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50 See G-4 File 29717-26.

51 See G-4 File 33861.

52 See G-4 File 33700.

Ferry Routes

Airplanes flown overseas are dispatched along the so-called ferry routes by the pilots of the Air Transport Command. Prior to American entry into the war, work had begun on an air route between Hawaii and Australia via certain Pacific islands such as Canton and Christmas. Construction was still in progress when the Japanese attacked Pearl Harbor. Similarly, in 1941 bases were established at Greenland and Iceland which later served as stops on an air ferry route to the United Kingdom. Other routes traversed the continent of Africa, and eventually almost all the United Nations not occupied by the Axis were linked together by air.

The accomplishments of the Air Transport Command on the various air ferry routes are beyond the scope of this study, but very considerable numbers of airplanes were delivered in this manner.[53] However, it should be emphasized that all the air ferry routes placed a heavy burden upon water transportation, since men and supplies had to be maintained at each base.

In April 1942 a North Atlantic Ferry Route committee was organized. It was composed of representatives of the Plans Division, Services of Supply; the Operations Division, War Department General Staff; the Army Air Forces; the Chief of Engineers; and the Chief of

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53 Of 1,014 airplanes projected for delivery to the British Isles as of April 1942, by far the major portion (896 heavy bombers) was to be delivered by air. See Statistical Summary, Transportation Service, SOS, vol. 2, 30 April 1942, P. 2, In 1943, 11,286 aircraft were moved by sea as compared with 9,386 moved by air. Similarly, in 1944, more airplanes were moved by sea than air. Cf. Monthly Progress Report, Transportation, OCT, ASF, 30 April 1944, p. 28; 31 December 1944, p. 52.

Transportation. According to Colonel N. H. Vissering who served on the Committee, its problem was to plan and coordinate the construction of air bases in the Hudson Bay, Greenland and Iceland areas so as to provide a route over which aircraft could be flown from the United States to Great Britain. A number of such bases were actually completed during the 1942 season.[54]

The North Atlantic Ferry Route, in particular, involved many hazards. During July 1942 the Army Air Forces encountered considerable difficulty in effecting delivery of aircraft between Iceland and Scotland because of adverse weather. As a result large numbers of pursuit planes were delayed in Iceland "for long periods of time." The Assistant Chief of the Air Staff, A-4, accordingly requested that the Commanding General of the Services of Supply (through Brig. General Charles P. Gross) make some arrangement to move airplanes from Iceland to Scotland by vessel. The vessel, however, would have to be capable of carrying airplanes of the P-38, P-39, and p-40 types fully assembled for flight. Furthermore, since it was impossible to tell how long the unsatisfactory weather conditions would continue, a permanent vessel assignment was desired. In reply Brig. General Gross, Chief of Transportation Service, stated that no vessel was immediately available for this purpose, and as an alternative measure suggested that pursuit planes projected for shipment from the United

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54 See Memorandum of 16 February 1943 from Colonel N. H. Vissering, Assistant, Water Division, to Chief, Administrative Division, OCT. File SPTOW 334.8 T.

States during the next few months be boxed for shipment on regular vessels.

In this connection, Lt. Colonel N. H. Vissering, Deputy Chief, Movements Branch, Transportation Service, foresaw some of the difficulties to be expected when "The Army Air Forces start pushing planes across the Northern Ferry Route." Colonel Vissering further stated that he had informed the ARmy Air Forces that up to 1,000 pursuit planes per month could be transported to the United Kingdom provided they were boxed for shipment from the United States. The only ship that he knew of which could carry any large number of assembled pursuit planes was the SEATRAIN TEXAS, then scheduled for another missions. Only limited numbers of planes could be carried on the decks of cargo vessels, and such action would require that convoys for the United Kingdom stop at Iceland in order to load the accumulated airplanes.[55]

Shipment of Assembled Airplanes as Deck Cargo

In the spring of 1942 considerable utilization was made of deck space on both British and American vessels for the shipment of airplanes. In this connection a study was made of the shipment of uncrated air planes to the Philippines in 1936, which indicated that the method then used was no better than the one of 1942. As a matter of fact, many more planes were being shipped in considerably less time in 1942.

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55 For details see OCT File 452.1-DD (Iceland).

than in 1936. The Chief problem was to reduce the number of times the planes were actually handled.[56]

A development in the spring of 1942 was the forerunnder of an operation of subsequent magnitude, the use of deck space on tankers for the shipment of assembled aircraft. In April 1942 a number of Douglas bombers were loaded on an American tanker in New York which then proceeded to the Dutch West Indies for a full cargo of oil. The oil was discharged at Capetown, South Africa, and the vessel then sailed to Abadan, where the planes were discharged. No skid deck was required for this operation, and the damage to airplanes proved almost negligible.[57]

During the summer and fall of 1942 many shipments of P-38 airplanes were made to the European Theater of Operations. Airplanes were carried on both British and American tankers and freighters, but there was some competition for deck space because of the necessity of moving landing boats and vehicles at about the same time. Generally the planes were flown to Newark, New Jersey, for subsequent shipment as deck loads to the United Kingdom. Actual space was procured as a rule through joint efforts of the War Shipping Ad-

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56 For details see OCT File 452.1 Phillippines, correspondence of March 1942 relative to loading of airplanes at San Francisco.

57 See Memorandum of 25 April 1942 from Col. J. M. Franklin, Chief Water Division, OCT, to Major General C. P. Gross, Chief of Transportation. It should be added that some shipment of aircraft on deck arrived with considerable damage because of rough weather, inadequate lashing, or poor processing.

ministration and the British Ministry of War Transport. On occassion the Army Air Forces secured deck space directly through the War Shipping Administration to the embarrassment of the Transportation Corps, which during September 1942, for example, had been able to carry only six out of 38 planes offered for shipment to the United Kingdom.[58]

During 1943, the problem of aircraft shipment became more critical and more complex as, with increasing demans, the need for space increased. In February 1943 the lack of adequate information upon prospective availability of aircraft and delays in delivery to the port resulted in failure to utilize space available at the New York Port of Embarkation. Despite demands by the Army Air Forces for the unboxed shipment of P-39 and P-40 type aircraft, Colonel Vissering was unable at that time to foresee the possibility of their shipment except in crates unless "special vessels" were constructed for this sole purpose.[59]

Creation of the Committee on Aircraft Transportation

A decision was made by the Joint Chiefs of Staff on 9 March 1943 to the effect that aircraft shipments would be accomplished, to the greatest extent possible, in assembled condition, so as to expedite

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58 See OCT File 370.5 Movement Wildflower. Memorandum of 23 September 1942 from Lt. Col. N. H. Vissering, Deputy Chief, Movements Division, OCT, to Commanding General, New York Port of Embarkation.

59 See Memorandum of 18 February 1943 from Col. N. H. Vissering to the Assistant Chief of Transportation for Operations, OCT File SPTOW 563.5 T.

their availability for combat and to reduce theater requirement for technically trained personnel in assembly. To implement this decision a Committee on Aircraft Transportation was establisehd on 12 March 1943.[60] Brigadier General (then Colonel) John M. Franklin, Chief of the Water Division, OCT, was designated as Steering Member of the Committee.

At the first meeting of the Committee on 24 March 1943, Colonel John H. Leavell, OCT, presided, while Major Curtis F. Bryan, OCT, served as Acting Secretary. Others on the committee were representatives of the Army Air Forces, Naval Transportation Service, War Shipping Administration and British Ministry of War Transport. At a meeting held on 22 April 1943, Lt. Colonel (then Major) Curtis F. Bryan was designated as Executive Secretary, and, subsequently, he became the key figure in directing activities of the Committee, in maintaining the necessary liaison, and in supervising and coordinating the shipment of aircraft overseas.

Procedures were established whereby current information was developed with respect to schedules for the delivery of aircraft. The necessary liaison was maintained with the Navy, and all Army requests for use of the AGV and ACV type vessels of the Navy for the shipment of Army aircraft were made through the Chief of Transportation.[61]

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60 On the Committee's program from March 1943 through May 1944 see Monthly Progress Report, Transportation, OCT, ASF, 31 May 1944, pp. 39-41. At present (May 1945) the Committee is inactive since the program is well under way.

61 See OCT File SPTOC 565.4-AA. Memorandum of 12 March 1943 from Brig. Gen. R. H. Wylie, Assistant Chief of Transportation, to Col. J. M. Franklin.

Plans were initiated to increase shipping facilities in order to meet rapidly expanding aircraft production. Except for considerable assistance provided by the assignment of Navy carrier vessels for this purpose, the increased use of tanker decks, through the construction of special superstructures ("meccano decks") afforded the principal means for the delivery of aircraft overseas. The use of meccano decks on tankers was steadily expanded until, as of 30 June 1944, approximately 500 tankers were equipped for this purpose and up to 65T of overseas fighter planes were delivered by this means.

Meanwhile, to meet the need for delivery of aircraft to destinations where tankers, cargo vessels and Navy carriers were lacking or inadequate, it became apparent that other means would be necessary. In February 1943 the Army also faced the problem of delivering fully assembled fighter airplanes to overseas theaters on a regular monthly schedule. To do this the Army Air Forces asked the Navy for the use of ACVs(that is, merchant ships converted to aircraft carriers). According to advance information received by Colonel M. B. Stokes, Jr., Chief of the Planning Division, OCT, The Transportation Corps was to be "asked to move certain numbers of P-38s, P-40s and P-39s fully assembled to various theaters in accordance with a regular monthly schedule, beginning at once." The Navy had agreed to help by the use of carriers at odd times. This task, said Colonel Stokes, would be "an increasing one" as the production of fighter planes was stepped up.

The immediate problem was to find other adequate space. The Chief of Transportation, Major General C. P. Gross, believed that

"we should begin at once investigating all possible means, including the possibility of asking for the assignment of a portion of the AOV production to the Army for this purpose." In fact, the construction of special vessels might prove necessary. To meet this problem Colonel Stokes proceeded on the basic assumption that 25 per cent of Army cargo sailings to overseas theaters could be utilized for fully assembled airplanes as deck cargo. The average EC2 cargo ship, he added, could carry, fully assembled, four P-38s, or fourteen P-39s, or ten P-40s or seven P-47s.[62]

During the summer and fall of 1943 the Director of Operations, OCT, Brig. General Robert H. Wylie, and his assistant, Lt. Col. Richard D. Meyer, took an active interest in aircraft shipments particularly with respect to possible utilization of a number of Maritime Commission cargo vessels (ZEC2-S-C2 type), originally intended to serve as armored tank carriers. In the furtherance of this interest and under the direction of Lt. Colonel Curtis F. Bryan, plans were evolved by Lt. Colonel A. D. Warwick and Mr. Hubert Kempel, of the Water Division, OCT, to provide for the alteration of a number of ZEC-2 cargo vessels and for the development of loading procedures for on deck and below deck carriage of aircraft. The vessels were modified by the addition of removable stanchions[63] devised to increase and facilitate

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62 See Memorandum of 22 February 1943 from Col. M. B. Stokes, Jr., to Brig. Gen. R. H. Wylie, Col. J. M. Franklin and Col. N. H. Vissering.

63 Mr. Kempel suggested the removable stanchions and obtained approval for their use from the American Bureau of Shipping.

stowage. Hydraulic jacks are employed in moving the stanchions so as to permit the necessary maneuvering of airplanes. With stowage completed, these stanchions are replaced. Specially designed cradles and detailed loading and discharge procedures also were evolved to afford maximum safety for planes and expeditious loading and discharge. By 30 June 1944, this type of transportation had been found so completely satisfactory as to be termed by Army Air Force Headquarters "the best method yet developed for the safe delivery of assembled aircraft which cannot be delivered by the limited lift provided by auxiliary aircraft carrier vessels." and as to secure approval by the Joint Chiefs of Staff of plans for the construction of 16 additional vessels of this type, bringing the total to 24.

During 1944 further steps were taken to increas the available special aircraft cargo ships. As of 14 April 1944 in a report on current and anticipated problems of the Army Service Forces, Colonel Luke W. Finlay, Executive, Transportation Corps, noted that "except under special and temporary circumstances no backlogs of unshippedaircraft have occurred." ZEC-2 type freighters specially altered as aircraft cargo carriers had, he said, proved "highly satisfactory" for the transportation of assembled aircraft and had been of "material assistance" where other facilities were lacking or inadequate.

The 16 additional aircraft cargo ships projected in 1944 for use in the Pacific were delivered in early 1945. These, however, are the so-called ZEC-5 vessels (Maritime Commission type ZEC2-S-C5).

The ZEC-5 type is chiefly distinguished by having larger hatches than the ZEC-2 type; the former has a gross tonnage of 7,200 per vessel as compared with 7,176 for the latter. Both types have the same overall length, 442 feet, and the same speed, 11 knots. These aircraft cargo ships have proved exceedingly useful for the delivery of assembled airplanes overseas, and no doubt will be equally helpful in the redeployment of aircraft from the European Theater of Operations to the Pacific.

Some 24 additional aircraft cargo ships (ZeC-5 type) at present are under construction at the yards of the J. A. Jones Construction Company, Inc., of Panama City, Florida, and the New England Shipbuilding Corporation of South Portland, Maine, the only two builders of this special type. When the current construction program has been completed, there will be a total of 48 ZEC-2 vessels and ZEC-5 vessels available to the Army for aircraft transportation. All such vessels are obtained as permanent allocations from the War Shipping Administration.

While in the past most airplanes shipped overseas have been carried on tanker decks, ZEC-2 and ZEC-5 vessels carry increasingly large numbers of aircraft both in the Atlantic and in the Pacific. However, mention should also be made of three small ships in coastal service for the Transportation Corps in the United Kingdom. These are the so-called "flat top shuttle ships." They have a flat wooden deck, built above the main deck, upon which airplanes are stowed. These craft transport newly arrived airplanes to various processing

points that may be as far distant as 100 miles from the port of debarkation, thus facilitating prompt unloading of vessels on the spot, and making unnecessary the movement of the airplanes by truck. These aircraft shuttle ships, all operated on bareboat charter, are the JULIUS H. BARNES, the GANANDOC, and the SORELDOG. 64

Navy Vessels Carrying Army Cargo

The requirements of amphibious operations have resulted in a number of special types of cargo ships, somewhat loosely termed combat loaders, which are as a rule under Navy control but frequently carry Army cargo. These vessels have one common characteristic, namely that of being loaded expressly for combat, so that the cargo on board---such as armored vehicles---can be utilized directly in support of a landing on enemy territory. In the broad sense, such combat vessels consist of two types. The first is comprised of converted merchant ships, which have been supplied with heavy armament, with landing craft, and with sufficient ballast to offset the unusually heavy topside load. The second type, much more revolutionary in design, consists of the numerous landing ships employed by the armed services during the present war.

Cargo Attack Ships

The Navy at present has a considerable number of cargo attack

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64 The SORELDOG was recently lost through enemy action. On these aircraft shuttle ships compare the remarks of Col. R. M. Hicks, Chief, Water Division, OCT, in the processed proceedings of the Port and Zone Conference at Chicago, Illinois, 6-9 July 1944, p. 7.

ships (AKA type) which have been employed in joint operations by the United States Army, the Navy, and the Marine Corps. Frequently the AKA is simply a wartime conversion of a vessel of the Maritime Commission C2 type. Among such ships used both by the Army and the Navy may be mentioned the ACHERNAR (AKA 53), the TYRRELL (AKA 80), and the WYANDOT (AKA 92). The cargo attack ship is designed to deliver cargo for direct support of beachhead operations. The cargo carried is so selected and so stowed as to meet anticipated needs with a minimum of lost time. Thus, a typical AKA might carry such essentials as ammunition, water, vehicles, and medical supplies.

The Landing Ship, Tank

The LST (Landing Ship, Tank) is a flat bottom ocean-going landing ship capable of carryingcargo and troops overseas and of discharging them over a ramp onto a beach. The average LST has an overall length of 328 feet, a normal speed of about 10 knots, and can carry some 186 troops and ten heavy (50 ton) tanks.[65] This craft is said to have been conceived by Admiral E. L. Cochran of the United States Navy, and production was first begun in the United States in the spring and early summer of 1942.[66]

An important feature of the LST is the comparatively light draft,

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65 For further details see ONI 226 Allied Landing Craft and Ships, a publication of the Division of Naval Intelligence, issue of 7 April 1944.

66 See Journal of the Western Society of Engineers, Chicago, Ill., March 1945, p. 28.

enabling the vessel to land waterproofed tanks or vehicles over a low ramp on a 1/50 beach slope. The Army has employed a number of LSTs, principally to discharge vehicles ashore. These ships have proved very versatile, and their possibilities have been widely recognized by the Army. As early as January 1943 Colonel N. H. Vissering of the Office of the Chief of Transportation at Washington, C. D., called attention to the many uses that might be made of the LST in the Southwest Pacific.[67]

Reefer Ships and Refrigerator Space

Since 1941 the Army has experienced considerable difficulty in obtaining adequate refrigerator space for the shipment of perishables to overseas bases. In asense this problem began with the acquisition of the so-called Atlantic bases, but actually was present for many years prior to 1940, since refrigerated supplies had to be sent to Puerto Rico, Panama, Alaska, Hawaii, and the Philippines. During the spring of 1941 the Transportation Division, OQMG, and the Transportation Branch, G-4, gave serious consideration to this problem, since it was realized that the establishment of Atlantic bases would "entail the shipment of material quantities of subsistence supplies in refrigeration space." 68

This need might be met in various ways. Refrigerated space could

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67 See OCT file SPTOW 565.2 T, Memorandum of 4 January 1943 from Colonel N. H. Vissering for the Chief of Transportation.

68 See G-4 File 32753. Memorandum of 13 May 1941 from Lt. Col. Frank S. Ross, Transportation Branch, G-4, to the Quartermaster General.

be obtained on commercial vessels, but the cost was rather high. So-called reefer ships might be acquired but the Army had none at this time. As an emergency measure portable refrigerated boxes were procured, and such boxes evidently were authorized for ships on the Alaskan run as early as the spring of 1941.[69] Lastly, refrigerator compartments were installed in the 'tween deck spaces of Army transports.[70]

A number of portable refrigerator boxes were obtained during the summer of 1941 for the Army transports. For this purpose the Quartermaster General chose a mechanical refrigerated type which was already standard with the Navy and the Marine Corps. Several of these boxes were found to give excellent service in the new Caribbean bases, where they were placed on loan to small garrisons until permanent refrigerated storage space could be provided.[71]

During the fall of 1941 the Army Transport Service continued in urgent need of refrigerated space for Alaska and Honolulu. Accordingly, to meet this demand Lt. Col. C. H. Kells of the Water Transport Branch, OQMG, requested that the JACK and the KING be made available at once to the Army Transport Service, one for the Alaskan run

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69 See Col. D. C. Cordiner's "Digest of Activities," Transportation Division, OQMG, dated 29 March 1941.

70 For details see Memorandum of 16 November 1942 (W-17) from Col. C. H. Kells to Mr. C. C. Wardlow.

71 Of. letter of 22 August 1941 from Lt. Col Kells to Col. John H. Mellom, Superintendent, Army Transport Service, San Francisco Port of Embarkation.

and the other for the Hawiian run.[72] As already noted, both vessels ultimately were procured for the Army. In January 1942 the Water Transport Branch (Mr. G. A. Anthony) inspected the SS GOVERNOR COBB with a view to service as a refrigerator ship at Panama.[73] The scarcity of reefer space was acute throughout the remainder of 1942.

The Situation in 1943

During 1943 the demand for refrigerated space increased. As in 1942, joint arrangements by the Army and the Navy were effected in order to supply certain bases. Thus the Army supplied perishables on the south and west coasts of Greenland, while the Navy delivered refrigerated products to the east coast of this island.[74] During 1943 as in the preceding year the War Shipping Administration upon request furnished reefer space to the Army. The Water Division, OCT, informed the War Shipping Administration of the quantity of reefer cargo to be shipped, and that agency in turn made available either reefer space or refrigerator ships.[75]

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72 See QM File 571.22 T-W-C "JACK." Memorandum of 20 October 1941 from Lt. Col. C. H. Kells to the Maritime Commission, Washington, D. C.

73 See QM File 333.7 T-W-M "LAFAYETTE." Memorandum of 31 January 1942 from Mr. G. A. Anthony to the Quartermaster General. This vessel was rejected for purchase as a refrigerator ship by the Army.

74 See OCT File SPTOW 673 T. Memorandum of 9 March 1943 from the Assistant Chief of Transportation to the Commanding General, Boston Port of Embarkation.

75 Cf. OCT File SPTOW 545.02 T. Memorandum of 24 March 1943 from Deputy Chief, Water Division, OCT, to War Shipping Administration.

Wherever possible, additional refrigerated space was installed in Army vessels. The CITY OF FORT WORTH, for instance, which was assigned to the Pacific in the spring of 1943, provided reefer space for New Guinea. By letter of 29 March 1943 to Colonel Franklin, Chief, Water Division, OCT, Brig. General Thomas B. Wilson, Chief of Transportation, U. S. Army Forces in the Far East, wrote appreciatively of the refrigeration installed on this vessel, which he termed "an answer to one of our serious problems." Said General Wilson, "Any more ships in this class and type that you can pass along to me will be like manna from heaven, so please keep us in mind even though we are 10,000 miles away." 76

Refrigeration Problems of 1944

In 1944 there was still a shortage of refrigerator ships, although a number of such vessels had been procured by the War Shipping Administration. In the spring of 1944 the Chief of Transportation, European Theater of Operations, requested that several small refrigerated vessels be assigned to him for local use. However, the only Army vessels of this type then available were being used to supply the North African Theater and could not be released until replacements were obtained. In addition, the Commanding General of the United States Army Forces in the China-Burma-India Theater had requested refrigerated space since his requirements were not being filled

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76 See OCT File 565.2 "CITY OF FORT WORTH." This vessel was the first of the so-called Lakers dispatched to this area for inter-island service.

completely under reverse British lend-lease.

In a memorandum of 4 March 1944 for Brig. General John M. Franklin, Assistant Chief of Transportation, the Chief of the Water Division, Colonel R. M. Hicks, declared that since November 1943 the need of additional refrigerated vessels had become apparent to the Army and had repeatedly been brought to the attention of the War Shipping Administration. Mr. Ralph Keating of that agency had stated that several fast freighters would be converted into reefers but no such action took place. Both Mr. Keating and Colonel Hicks evidently realized that a "critical situation" might arise in the fall of 1944. Summarizing, Colonel Hicks described the reefer situation in March 1944 as follows: All reefer requirements of the United Kingdom were not being met promptly. All small reefers were then being used for the Mediterranean. A request for refrigerated cargo direct from the United States to India was imminent. Consequently, he believed that the need of additional reefer ships was critical and that prompt action should be taken by the War Shipping Administration. Furthermore, the reefer space that the Army was then receiving from the War Shipping Administration for the United Kingdom was principally on British vessels. Since the British themselves were short of such space, they were"not always able to give the Army its full quota on time."[77]

The procurement of adequate refrigerated space continued critical during 1944, although all available resources appear to have been

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77 OCT File SPTOW 563.5 T. Memorandum of 4 March 1944 from Chief, Water Division, OCT, to Brig Gen. J. M. Franklin.

tapped. Among these resources were the so-called "full refrigerated vessels" allocated to the Army by the War Shipping Administration. During May 1944 for example, the War Shipping Administration assigned the refrigerated vessel LIGHTNING "to take a full load of Army cargo to the United Kingdom." Furthermore, the War Shipping Administration agreed to nominate specific refrigerated vessels, presumably "at least one full ship per month" for Army cargo. Such vessels were to supplement the reefer space already available to the Army.[78]

The China-Burman-India Theater also presented a serious problem with respect to perishables, and notably those to be obtained on reverse lend-lease from the British. Through the International Division, OCT, Lt. Colonel A. G. Syran, Chief of the Ocean Traffic Branch, Water Division, OCT, attempted to develop a possible plan of having the British make available both refrigerated vessels and meat on reverse lend-lease for shipment from Australia direct to Calcutta, India. This action was taken, said Lt. Colonel A. G. Syran, because of the "great scarcity of refrigerated vessels" on both coasts of the United States and the Army's inability to supply reefers for direct movement therefrom to Calcutta.[79]

During the summer of 1944 the Water Division (Lt. Col. Syran) again called attention to the need of refrigerated vessels in order to meet additional requirements of the overseas theaters. As in the

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[78] See OCT File SPTOW 565.2 T New York. First Indorsement of 10 May 1944 from Chief, Ocean Traffic Branch, Water Division, OCT, to Commanding General, New York Port of Embarkation.

[79] Memorandum of 14 July 1944 from Chief, Ocean Traffic Branch, Water Division, OCT, to Planning Division, ASF.

past, the Transportation Corps had "consistently asked" the War Shipping Administration to put into effect a program of converting available ships into reefers and of building additional reefers, but with no results. Consequently under date of 20 July 1944 Lt. Colonel Syran recommended that this entire matter "be presented to the Refrigerated Vessel Sub-committee of the Joint Military Transportation Committee for immediate action followed by a demand upon the WSA to proceed promptly with a comprehensive and realistic program to supply the required number of refrigerated vessels."[80]

Throughout 1944 Lt. Colonel Syran repeatedly stressed the need of reefer ships. Late in that year the critical situation with respect to reefer space led at length to the nomination of five small cargo vessels of the Maritime Commission C1-M-AV1 type for conversion into refrigerator ships for inter-island service in the Pacific. Originally these vessels were named after holders of the Congressional Medal of Honor, but when selected for service as reefers they were renamed. the ELMER J. BURR, for instance, became the CROWN REEFER, and the RODGER W. YOUNG was renamed the BOWLINE REEFER. (All the vessels covered by this program include the word "reefer" as a combining form in the new name.) As of 14 May 1945, two of these conversions had been completed.[81]

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80 Memorandum of 20 July 1944 from Lt. Col. Syran to Chief, Water Division, OCT.

81 Weekly Ship Conversion Report, Maintenance and Repair Branch, Water Division, OCT, 14 May 1945, p. 7.

the special attention given to the needs of the Pacific theaters in the current fiscal year. Three 176-foot steel supply vessels have been converted into refrigerator ships to be operated by the Transportation Corps. Also for the use of the Transportation Corps in the Pacific, five 210-foot steel barges and three 265-foot concrete barges have been converted into refrigerated barges. The three 265-foot refrigerated barges, each costing approximately $1,120,000, are equipped with an overhead monorail conveyor system which can load, discharge, or shift cargo in two-ton drafts to or from any hold. These barges also have facilities for the manufacture of both ice and ice cream.[82] Despite continued efforts to provide relief, the shortage of refrigerated space is still serious.

Tankers

The problem of supplying the huge quantities of petroleum products required in the prosecution of the present war is a tremendous one, which has been accentuated by the growing reliance of the Army on gasoline for its airplanes and vehicles. All these petroleum products have had to be transported in one way or another from the source to the theater of operations. Transportation has been accomplished to a considerable degree by water, but the vessels so employed have been for the most part under the jurisdiction of the Navy Department and the War Shipping Administration rather than of the United States Army.

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82 Annual Report, Water Division, OCT, Fiscal Year 1945, p. 10.

Early in 1941 the Maritime Commission began construction of some 72 tankers at the Sun Shipbuilding and Dry Dock Company, the first of which was to be delivered early in 1942. These vessels were to be approximately 500 feet long, with a gross tonnage of 10,750, a speed of 14.5 knots, and adequate armament. During 1941 the importance of tankers was recognized by the Army, although it was not until the fall of that year that the first tanker was acquired for Army use. This was the GEORGE F. DOWNEY, ex-LAKE MIRAFLORES, a small tanker of 2,702 gross tons which was purchased on 12 September 1941 through the Maritime Commission. An additional tanker, the T. W. DRENNEN, was obtained by the Army on 11 December 1941, but this was also a small vessel of only 1,737 gross tons. Although some effort was made in January 1942 to procure the motor vessel ARTHUR HOYT SCOTT for conversion to a light draft tanker, this ship was never obtained by the Army. This vessel was then wanted in order to meet the need of supplying gasoline for the Army Air Forces at the Carribean bases.[83]

The control of tankers became a particular problem of the Maritime Commission early in 1942. That agency was especially concerned about this type of equipment since it had become "extremely scarce" and since both the Army and the Navy were seeking tankers. At a meeting of 18 February 1942 in the office of Mr. B. B. Jennings, who was in charge of tankers for the Maritime Commission, arrangements

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83 See QM File 561.1 (ARTHUR HOYT SCOTT). Memorandum of 22 January 1942 from Col. C. H. Kells to the Strategic Shipping Board.

were made whereby that agency was to become a clearing house for the tanker requirements of both the Army and the Navy.[84]

With the establishment of the War Shipping Administration early in February 1942 the functions of the Maritime Commission with respect to tankers were transferred to a Director of Tanker Operations in the War Shipping Administration. Essentially, tankers under this arrangement constituted a pool from which were met all military requirements. During the spring of 1942 the principal problem was to provide petroleum products, and especially 100 octane aviation fuel, for Australia and for the island bases in the South Pacific.[85] The problem during 1942 was further complicated by the intensive U-boat campaign along the Atlantic Coast and in the Caribbean, resulting in a heavy loss of tankers. The submarine spread death and destruction all the way from Newfoundland to the West Indies. Not only were the vessels lost but also a considerable number of the personnel aboard, since tankers generally burned or exploded when struck by a torpedo.

Developments during 1943

During 1943 the menace of the submarine was somewhat curbed. Tankers, to be sure, were lost, but not at the same appalling rate as in the preceding year, principally because of more effective convoying and increased air coverage. Also during 1943 the Army for the

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84 See QM File 337 T-W-OT (Maritime Commission).

85 See G-4 File 33799/

first time developed the only type of tanker which it was to use extensively during this war. This is the so-called Y-type, which strictly speaking is not a tanker but simply a tank barge. The first small tanker of this type was the Y-1, built by the Odenbach Shipbuilding Corporation at Rochester, New York. This vessel was accepted on 1 April 1943, proceeded under its own power to the New York Port of Embarkation, and then was assigned to the base at Trinidad. The Y-1 is still in operation.

The Y-tankers were designed to transport fuel oil, including 100 octane gasoline, for distribution from large tankers, and they were intended primarily for harbor use. They can carry a light deck load of freight or a small number of troops but are not ocean-going vessels. Originally the Y-tankers (Design 294-AB) were built in two lengths, approximately 162 feet and 182 feet. Only the large size is being produced at present, the overall length of which is 182 feet, six inches.

The Y-tanker has a speed when loaded of 9 knots, has a gross tonnage of 639.72, and will carry approximately 280,000 gallons of gasoline on a tonnage basis. These vessels are powered with twin diesel engines of various available makes. They carry armament, and they provide accomodations for a crew of 23 officers and men, including a gun crew of six. At present the construction program is tapering off, but it appears that all told some 167 of these vessels will be completed.

The first two Y-tankers were used in the Caribbean area. Sub-

sequently a number of these vessels have been forwarded to other theaters. General MacArthur, for example, had some 16 assigned to the Southwest Pacific as of September 1943. As a rule, these vessels when completed have proceeded under their own power from the building yards to an Army port of embarkation, where additional work frequently has had to be done before the tanker could be dispatched overseas. The tanker Y-12, for instance, after acceptance at Rochester, New York, was scheduled to proceed down the inland water way via the Mississippi River to the New Orleans Port of Embarkation, where it was to be given a short shakedown cruise before final dispatch to Hawaii by way of the Los Angeles Port of Embarkation.[86]

Assignments of these tankers were made in the first instance by the Water Division (Harbor Boat Branch), where the basic records were kept on each ship, after which the assignments were approved, through channels, by the Army Service Forces. In addition, the necessary clearances were secured from the Operation Division, War Department General Staff, in cases involving the assignment of vessels outside the continental limits of the United States.[87]

It is interesting to note that these vessels for a time carried high octane aviation gasoline from refineries as, for example, at Port Arthur, Texas, for delivery to points in Florida such as Tampa,

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86 See OCT File SPTOW 565.4 H-O Hawaii. 2nd Indorsement of 17 September 1943, Chief, Water Division, OCT, to Stock Control Division, ASF.

87 Memorandum of 10 September 1943 from Harbor Boat Branch, Water Division, OCT, to Major C. F. Bryan.

for the use of the Army Air Forces.[88] These cross-Gulf shipments were frequent during 1943 and continued until early in 1944. They served a dual purpose, in that gasoline was delivered and any obvious defects in the vessel were disclosed. As a rule these vessels carried some 6,500 barrels of aviation gasoline.

The production of Y-tankers was carried on during 1944 at the completion rate of approximately seven per month. After acceptance, a shake down cruise, and any necessary repairs, each vessel was ultimately assigned to an overseas theater. Few reports are available as to the condition of these vessels when they arrived overseas. It should be noted, however, that they were not intended for such long ocean voyages as were entailed in moving from, say, the New Orleans Port of Embarkation to Brisbane, Australia. For one thing, these tankers had practically no freeboard amidship. As a result, during very rough weather, it was almost necessary to rig up a breeches buoy in order to travel safely from the after to the forward part of the vessel.

A former Master of the Y-5 when interviewed by the Director of Intelligence at the New Orleans Port of Embarkation on 5 January 1944 supplied the following information. The Master, Captain Samuel J. Smith, stated that he left New Orleans on 18 August 1943 and arrived in Brisbane, Australia, on 9 November 1943. The vessel traveled un-

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88 File 569.4 Tankers. Memorandum of 5 October 1943 from the Army-Navy Petroleum Board to Lt. Col. Otto L. Totman, Water Division, OCT.

escorted all the way and no enemy ships or aircraft were sighted. The decks of the Y-5, he said, were "constantly awash and on one occasion we were mistaken for a submarine." The Master further complained of considerable difficulty with the crew.

The Y-tankers comprise an important part of the United States Army fleet of small vessels in Australian waters. As coastal tankers they have proved of value in the transporting of gasoline from large ocean-going tankers to shore installations and for short hauls from port to port, since several of the Australian bases are more readily accessible by water than by rail or highway. While enroute from the United States the Y-tankers often suffered extensive damage because of adverse weather. The Y-10, for example, arrived in Australia on 1 April 1944 and was laid up immediately for extensive repairs which required about 11 weeks to complete. For the most part, the civilians manning these tankers were described as "entirely inexperienced and inefficient" personnel who were unable to accomplish repairs normally handled by the crew.[89]

Y-Tankers for the European Theater

During the spring of 1944 a considerable number of Y-tankers were assigned to the European Theater of Operations. A few of these were of the 162-foot type, but the majority were 182-foot tankers. As a result of this development the cross-Gulf shipment of aviation

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89 History, Tanker Operations Section, Southwest Pacific Area (Brisbane), March-June 1944, p. 20 et. seq., in files of Historical Unit, Executive Office, OCT.

gasoline via Y-tankers was discontinued early in 1944, and tankers were sent directly to the European Theater of Operations with their loads.

Tankers to be used in support of the invasion of Normandy were cleared chiefly through the Charleston Port of Embarkation. The most of these were the large 182-foot size, since by May 1944 there were no more 162-foot tankers available. Usually the tankers were delivered from the builder's yards along the Atlantic, as for instance, at the Lancaster Iron Works, Perryville, Maryland, and forwarded to Charleston, South Carolina, under their own power.[90] During the spring of 1944 a considerable number of Y-tankers sailed to the European Theater of Operations via the Charleston Port of Embarkation. More recently, some of these vessels have been used in the Mediterranean, where as of March 1945, 10 of them were to be turned over to the War Shipping Administration for operation.[91]

Although the Y-tanker construction program is now nearing completion it may be anticipated that many such vessels will be utilized in inter-island service for operations in the Pacific. Although they require considerable maintenance and give satisfaction chiefly for inshore work, at present they comprise by far the major portion of the only tanker fleet under Army control.

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90 File SPTOW 560. Memorandum of 17 May 1944 from Executive, Water Division, OCT, to Commanding General, New York Port of Embarkation.

91 See Transportation News Letter, OCT, NTOUSA, vol. I, No. 22, 10 February 1945, p. 2; and vol. I, No. 27, 19 March 1945, p. 4.

As of May 1945 the Transportation Corps still had under its jurisdiction the two tankers procured in 1941, the GEORGE F. DOWNEY and the T. W. DRENNEN. A third tanker was acquired in 1942, the ZEPHYR (ex-CHARLIE WATSON), a bareboat chartered vessel currently assigned to the Southwest Pacific.

IV

OPERATIONAL ASPECTS

In peacetime a cargo ship of the Army Transport Service was painted black, and aside from the usual attention to maintenance and repair, presented no special problems. But after September 1939 it became necessary to consider certain changes in order to meet possible wartime requirements. Such changes actually were initiated in 1940, when the Army Transport Service first recognized the need of equipping its vessels with armament, degaussing, and special devices for traveling in convoy. Furthermore, most of the old vessels obtained by the Army in 1940 and 1941 had been laid up for some time, so that considerable rehabilitation and repair were required in order to satisfy the safety requirements of the Bureau of Marine Inspection and Navigation.[1]

Conversions and Repairs

Except for the wartime features already mentioned, the chief alteration made in freighters acquired by the Army was in the cargo handling gear. Booms had to be replaced and winches repaired. The gear of the average commercial vessel was quite inadequate to lift such heavy combat equipment as landing boats, tanks, and large guns. However, other alterations were necessary in many instances.

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[1] See letter of 20 July 1940 from the Quartermaster General to Admiral E. S. Land, Director, Shipbuilding Division, Advisory Commission to the Council of National Defense, QM File 571.4 T-W (Army Transports).

The work done on the three ships of the "Poker Fleet," which were acquired in 1941, will illustrate the changes required. The M. G. ZALINSKI, ex-ACE, was converted from coal to oil burning; new booms were installed; adequate crew quarters were provided; refrigeration space was prepared; the vessel was painted gray for wartime service and the name obliterated.[2] The sister ships of the M. G. ZALINSKI, namely, the KING and the JACK, were furnished with similar equipment, including armament and degaussing.[3]

Drydocking and general rehabilitation sometimes were found necessary. On occasion the rehabilitation involved such major items as overhauling the main engines; retubing and repair of boilers; rebricking furnaces; renewal of casings and uptakes; renewal of hull plating and deck plating; cleaning and repairing of fuel oil tanks; overhaul of auxiliary pumps, refrigerating machinery, electrical machinery and equipment, as well as proper attention to navigational apparatus, including direction finders, fathometers and gyro compass equipment. Since a freighter in Army service carried a Transportation Agent, or Quartermaster Agent, as he was originally called, office space had to be provided for his use, together with appropriate furniture, a safe, and a storeroom.

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2 Cf. teletypes of 2 and 17 October 1941 from the Quartermaster General to Commanding General, New York Port of Embarkation. QM File 574 "Zalinski" T-W/M.

3 See teletype of 9 December 1941 from the Quartermaster General to Commanding General, New York Port of Embarkation. QM File 574, Army Transports, T-W/M.

The costs of conversion ran high, and they mounted as emergency conditions developed. Frequently it was difficult to tell at the outset how much money would be needed to place an old vessel in good operating condition, since only after the conversion had begun, could the exact nature and extent of the necessary work be determined. A good example of this was the case of the TAKU, on which progressively larger amounts of work were done during 1942 and 1943.[4]

The SEATRAIN TEXAS, which was completed in 1940 and was therefore comparatively new when acquired by the Army under bareboat charter,[5] required considerable alteration because of the specialized service for which she was intended. This vessel was subjected to an extensive rearrangement of the hull interior, which cost $122,312.30. New deck houses and a number of other changes were made, which resulted in an additional expenditure of $174,731.87. Considerable expenditure was made for equipment, including $136,693.62 for additional new heavy lift equipment and $126,209.77 for the addition of new or larger deck winches. Major overhauling or rehabilitation accounted for $111,022.70, and drydocking and hull repairs cost $305,780.65.

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4 Cf. teletype of 24 June 1943 from Seattle Port of Embarkation to the Water Division, OCT, stating that further work was required "to place TAKU in satisfactory condition for continuous Alaskan service. Lack of maintenance while privately operated and age of vessel necessitate rehabilitation not previously anticipated."

5 The bareboat charter carried the usual provision that this vessel be restored to its original condition when returned to the owner. Such restoration, of course, would entail additional expense to the Army.

The total cost of the conversion proper amounted to $1,111,294.56.[6]

Broadly speaking, major repairs of Army owned or chartered freighters are accomplished after authorization by and under the general supervision of the Water Division, OCT, which operates through the Army ports of embarkation. At the large Army ports there are marine repair shops which accomplish as much of the work as is within their capabilities. Other repairs are contracted for with the concerns normally engaged in ship repair work.

Since the majority of the cargo vessels in the service of the Army are allocated ships, owned or controlled by the War Shipping Administration, that agency at an early date began to take over all conversion and repair work on such vessels, selecting the facilities and using its own funds. During the summer of 1942, by agreement between the War Shipping Administration and the War Department, it was definitely stipulated that the primary conversion and all repair work on WSA vessels allocated to the Army were to be performed by the War Shipping Administration at its own expense. In addition, the full responsibility for this conversion was to rest with the War Shipping Administration both with regard to the proper performance of the work and the safety of the vessel. The sole responsibility assumed by the War Department with respect to the conversion of such allocated vessels was "to furnish recommendations and proposed altera-

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6 Expenditures with respect to the SEATRAIN TEXAS cover the amounts expended to March 1944 and were compiled as of that date by the Water Division, OCT, in response to a request by the War Shipping Administration.

tion plans or arrangement plans that will assist the War Shipping Administration to accomplish the work on the vessel to meet the requirements of the War Department."[7] The War Shipping Administration has continued to bear the responsibility for all costs of the first conversion or alteration of any vessel made in accordance with an Army request. However, all conversions or alterations subsequent to the first conversion or alteration are at the expense of the Army.[8]

During the summer of 1941 a new office was created by the Navy Department and the U. S. Maritime Commission, to better deal with the growing ship repair and alteration problems which resulted from the congestion of the yards. This was the Office of Coordinator for Ship Repair and Conversion, extablished at New York City with Mr. John E. Otterson as the initial incumbent. The Army also cooperated with this new office, the primary function of which was to allocate the available facilities for repairs and to prevent congestion within the various yards.

Normally the ship's crew is responsible for the maintenance of the vessel, its engines and all machinery within the limit set by

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7 See 1st Indorsement of 18 July 1942 from Colonel D. C. Watkins, Water Division, OCT, to Superintendent, Army Transport Service, New Orleans Port of Embarkation, File SPTOW 545.02 M New Orleans.

8 See letter of 15 February 1943 from Lewis W. Douglas, Deputy Administrator, War Shipping Administrartion, to Lt. Gen. B. B. Somervell, Services of Supply, War Department, Washington, D.C., confirming understanding reached by War Shipping Administration, War Department and Bureau of the Budget.

available tools and spare parts and the ability of the crew. As relatively inexperienced crews have had to be placed on the Army's vessels, the amount of work done by such personnel has proportionately decreased, and consequently many normal repairs, together with repairs in the higher echelons, have been performed at private ship yards.

On 7 June 1943 an Army War Ship Repair Contract Agency was established at New York City as a Class IV installation under the control of the Chief of Transportation. This agency was created to negotiate and execute all Master Ship Repair Contracts for the alteration and repair of vessels for the Army.[9] The master contract represented the culmination of extended negotiations, beginning early in 1943, by the War Department, the Navy Department, and the War Shipping Administration with the representatives of all the major ship repair companies, in order to arrive at a uniform basis for ship repair work.

The normal peacetime procedure of the Army has been to accomplish ship repair jobs at fixed fee contracts following competitive bidding. After the outbreak of the war the repair yards were swamped with work and true competitive bidding disappeared. Furthermore, the preparations of plans and specifications as a basis for bidding required considerable time. A new method of contracting had to be

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9 See War Department Memorandum No. S55-15-43, 7 June 1943.

devised that would permit the repair work to start without delay, and yet be acceptable to the Comptroller General of the United States who is the final authority on the expenditure of public funds. Since the War Department, Navy Department and War Shipping Administration faced much the same problem, they joined forces to work out the solution. Salient features of the master contract included the maintenance of adequate records by the contractor subject to Government scrutiny; regular inspections of the repair work performed; submission of periodic reports of operations; and provision for negotiation and adjustment of prices, together with the right of recapture of any profits deemed excessive.

The procedure followed in effecting ship repairs under the master contract has been made as practical as possible. Army vessels returning from overseas are boarded and surveyed by qualified technical personnel who determine the repairs to be effected. Assignment of the work is made by means of job orders issued by the Contracting Officer through his representative at the various Army installations throughout the United States. Available ship repair facilities, however are obtained through the Coordinator for Ship Repair and Conversion. Frequently the necessary work is done alongside the dock while loading and refueling are in progress. For work performed at a contractor's plant, vigorous cost control supervision is exercised by Army inspectors, who are supplemented as the need arises by pools of civilian inspectors.[10]

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[10] The above is extracted from data compiled for the annual report of the Transportation Corps, Fiscal Year 1944.

During 1944 and 1945 a number of administrative changes were made with respect to conversion and repair work. On 30 September 1944, the Army War Ship Repair Contract Agency was placed under the jurisdiction of the Water Division. On 1 January 1945, the Ship Conversion Unit which had been set up at New York City in January 1944 to supervise the drawing of plans, collection of necessary material, and the inspection of progress of work in connection with conversion of ships, was made a section of the Maintenance and Repair Branch, Water Division, OCT. Finally, as of 1 April 1945 the Office of the Chief of Transportation issued a pamphlet (No.34), the purpose of which was to "establish a uniform basis upon which repairs and alterations to vessels will be performed at all ports of embarkation."

Transportation Corps Pamphlet No.34 defined normal and voyage repairs as distinguished from conversions, alterations, amd major repairs. The required authority and the proper procedure were duly set forth. Within stipulated financial limitations, normal or voyage repairs were to be accomplished by the ports of embarkation without prior recourse to, or approval from the Office of the Chief of Transportation. For other repairs or alterations, prior approval of the Chief of Transportation had to be obtained. A weekly report by the ports of embarkation, covering transports undergoing repair and/or conversion was continued. The procedure covered by this pamphlet was to apply equally to vessels being repaired by the Government-owned marine repair shops and at commercial shipyards.

During the fiscal year 1945 all conversion projects and practi-

cally all major repairs relating to Army vessels were carried out under the so-called "Master Contracts" of the Army War Ship Repair Contract Agency. However, by TC Circular No. 160-5, Supplement No.17, dated 3 April 1945, the Chief of Transportation granted prior approval for the use of lump sum contracts for ship repairs in all cases where the installation charged with the accomplishment of the repairs was of the opinion that this method would prove more economical. At present writing it is anticipated that most formal contracts to be negotiated in the future for the repair of Army vessels will contain lump sum agreements, after competitive bids have been secured on the completed specifications.[11]

Marine Repair Shops

As early as October 1942 the Transportation Corps requested that the War Shipping Administration make available two vessels to be used "as mobile marine repair ships." The draft of these vessels was not to exceed 20 feet when fully loaded so that they would be able to enter out-of-the-way ports. The speed of these vessels was to be between 12 and 13 knots.[12] Evidently nothing came of this request, but as the operations of the Army became more widespread in the Pacific, and local repair facilities proved wholly inadequate, a program was initiated early in 1944, calling for six specially equipped

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11 Cf. Annual Report, Water Division, OCT, Fiscal Year 1945, Section III, pp. 11-12.

12 See letter 27 October 1942 from Col. D. C. Watkins to Mr Ralph Keating, War Shipping Administration. OCT File SPTGW 545.02 CT.

vessels of this type. Except for the JAMES B HOUSTON,ex-KVICHAK, the vessels to be converted for this purpose were all of the familiar Lake type, and the alterations were accomplished in West Coast yards.

The six marine repair ships presently in service are manned by the Coast Guard, but a civilian shop crew numbering 38 on the JAMES B. HOUSTON was supplied by the Transportation Corps. In accordance with AGO letter of 8 April 1944, Army Marine Repair Ship Companies 801 - 805, inclusive were ordered activated on 10 April 1944 at Camp John T Knight, California, by the Commanding General, San Francisco Port of Embarkation. These are mobile troop units intended for overseas service with the marine repair ships.[13]

Manning of Cargo Ships in Army Service

Even before our entry into World War II, private American ship operators were experiencing manning problems. Because of the hazards involved, it became necessary to increase seaman's wages in order to sail ships on the perilous Murmansk route, which for a long time afforded almost the only means of access to European Russia, However, there was apparently no serious difficulty at that time in obtaining crews for the vessels that were owned or held under bareboat charter by the Army. The absence of actual warfare, plus the relatively secure tenure obtainable on such ships, made for compara-

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13 See Annual Report, Water Division, CCT, Fiscal Year 1944, Sec. III, Par 1. This type of vessel had been anticipated by Capt. P. C. Grening in a memorandum of 7 May 1941, in which he urged equipping a vessel of this type in order to repair damaged ships and to serve as a salvage vessel.

tively stable crews.

The Bonus Problem

After the attack on Pearl Harbor, a different situation prevailed. The Office of the Quartermaster General attempted to avoid giving any wartime bonus or extra remuneration to the crews of Army transports. Under date of 12 December 1941 Colonel C. H. Kells, Chief of the Water Transport Branch, Transportation Division, QMG, prepared a memorandum for the signature of the Quartermaster General, to the Assistant Chief of Staff, G-4, recommending that the Secretary of War promulgate a statement of policy similar to one that was said to have been established on 1 July 1918 by General George W Goethals, then Assistant Chief of Staff and Director of Purchase, Storage and Traffic.

The statement of policy which Colonel Kells drafted was to the effect that on and after 8 December 1941 "no bonus or extra pay will be made to crews of Army transports, either owned or under any form of charter." It was noted that the principle underlying the theory of the bonus was "essentially wrong." A comparison was drawn between the crews and the soldiers who were taking risks without thought of additional gain. Seaman, it was indicated, would not be so lacking in patriotism as to insist upon preferential treatment. Although it was conceded that commercial operators interested only in profits might find it necessary to offer bonuses to seamen traveling in combat zones, the point was made that none need be given to officers and seaman on transports, when no bonus was received by soldiers

engaged in combat who were subject to at least as great if not greater danger.[14]

Although full details are lacking, it appears that this matter was duly considered in the Office of the Secretary of War, where on 27 January 1942 approval was given for payment of a wartime bonus to the crews of Army vessels. Apparently this decision was influenced, in part at least, by difficulty aboard the SS ANCON, where a considerable number of the crew of the Engine Department had left on account of the low wages. The remainder upon duty on this vessel were key personnel, but they also were about to leave unless they received a bonus. The Superintendent of the Army Transport Service at San Francisco, Colonel J. H. Mellom, had called Lt. Col. R. H. Wylie of the Transportation Branch, G-4, at Washington, by long-distance telephone in order to get action, declaring that if he had to wait any longer "it will be just too bad."[15]

Meanwhile, on 18 December 1941 certain representatives of employers and employees in shipping industry entered into a written agreement to submit their labor problems to the Maritime War Emergency Board. Composed of three members appointed by the President, this Board was intended "to afford a procedure for settling questions relating to war risk compensation." In its Decision No. 2, dated

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14 See QM File 248.4 T-W-C (Army Vessels).

15 Cf. Memorandum for Diary, Transportation Branch, G-4, under date of 27 January 1942.

10 January 1942, which dealt with wage rates, the Board devised a scale based upon the hazards invloved. Voyages were divided into six different classifications, and payments to employees on such voyages were provided for in stated percentages of the regular monthly pay. In addition, a port bonus in flat sums was to be paid employees on vessels calling at ports in certain designated areas.

War Risk Insurance

In the meantime, considerable difficulty appears to have arisen at San Francisco with respect to obtaining and retaining crews for ships. Among other things seaman demanded some assurances that their dependents would be protected in the event of disaster, and the unions already had secured an agreement with the commercial operators to provide war risk insurance.[16] At the close of December 1941 the situation at this port was so serious that the Port Commander recommended that immediate steps be taken to militarize the crews of all ships used as Army transports. Although this proposal evidently was weighed by Colonel C. P. Gross, Chief, Transportation Branch, G-4, and by Colonel T. H. Dillon, Chief, Transportation Division, QMG, as of 2 January 1942 no further action was considered necessary, and no such militarization took place.[17] As of the same date Colonel

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16 CF. teletype of 27 December 1941 from Superintendent, Army Transport Service, San Francisco Port of Embarkation, to the Quartermaster General, Washington, D. C.

17 See G-4 File 29717-49. Cf. 29717-51.

C. H. Kells of the Water Transport Branch and his assistant, Major D. C. Watkins, arranged with the Maritime Commission to provide insurance coverage for seamen upon transports sailing from San Francisco.[18] Similar insurance was also provided early in 1942 for civilian crews on all Army transports.

The Manning of Cargo Ships in 1942

During the spring of 1942 some concern was expressed with regard to the problem of manning the new ships which were to be delivered during that year. In a memorandum of 25 April 1942 for Brig. General T. H. Dillon, Colonel J. M. Franklin discussed the personnel requirements for the 600 new ships expected in 1942. He noted that there would be no difficulty with respect to ordinary seamen, since they did not require any examination. Nor did he forsee any difficulty with regard to messman and wipers. The current training schedule, he thought, would provide sufficient deck, engine and radio officers and unlicensed personnel to man the additional ships, particularly in view of the fact that sinkings for the past few months had averaged almost one ship per day. (Most of the seamen were rescued and returned to service.) He thought that the unions were doing whatever they could to make sure that each ship was fully manned, but he also remarked that when seamen have received $1,200 in pay, bonus and overtime for a four months voyage at sea, "they are anxious to

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18 See memorandum of 2 January 1942 from Lt. P. D. McAllister to Lt. Col W. H. Schnackenberg.

go back into danger zones unless they have spent at least a good part of this money ashore." Nevertheless, he believed it would be practically impossible to reduce the pay, bonus and overtime of seamen except in conjunction with a general labor policy.

During 1942 the problem of manning cargo ships fell in large measure upon a new agency, the War Shipping Administration, which took over the Maritime Commission's functions with respect to training and furnishing personnel for the vessels under its jurisdiction. The War Shipping Administration quickly set up a recruitment, training and manning program, but relied heavily upon the maritime unions to supply personnel for ships under its control. The War Department called upon WSA for aid in manning its transports when necessary.

The Overtime Issue

In the fall of 1942 the labor problem on vessels in Army service appears to have aroused considerable concern in various quarters.[19] To deal with this matter a meeting was called on 10 September 1942 in the office of judge Robert P. Patterson, Under Secretary of War, at which were present Major General B. B. Somervell, Commanding General, Services of Supply; Mr. Edward F. McGrady, then serving as Expert Consultant to the Secretary of War for labor problems; Mr. James F.

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19 CF. Memorandum of 5 September 1942 from Col. John M. Franklin to Major Gen. C. P. Gross, reporting on a conference with Capt. Edward Macauley, who was then Deputy Administrator (for labor relations, manning, training and recruitment), War Shipping Administration.

Mitchell, Director, Civilian Personnel Division, Services of Supply; and Colonel John M. Franklin, then Chief of the Water Division, CCT.

General Somervell stated the point at issue by declaring that wages on ships already were high and that it was now the intention of the unions to force the Army transports to pay overtime. Colonel Franklin stated as his opinion that "the Army transports were as well if not better ran than the average commercial liner" and that there was "no trouble in getting personnel," since the men liked ships where the continuity of the employment was greater. Judge Patterson then asked wheter the Army Transport Service could continue to get men when the fleet was increased, if no overtime were paid. In reply Colonel Franklin stated that "nobody could properly answer that question." Judge Patterson then said that he wanted the matter settled at once rather than later under duress.

Colonel Franklin declared that, in his opinion, the wages already being paid on ships were "very excessive." In some instances, he added, a round voyage of 27 days, to the United Kingdom, netted the coarsest kind of labor $325 per month, plus overtime amounting to about 10 per cent of the base wage, plus bouard and lodging worth approximately $36 per month, plus a $5,000 insurance policy. The seamen, remarked Colonel Franklin, "are no longer unique in that we have troops in action in various parts of the world." Furthermore, he observed that overtime on ships was subject to "dreadful abuses," as in the case of the needless overhauling of a boom which was done simply to give the men overtime, Mr, McGrady was impressed by the

"tremendous pay" received by seamen, but nevertheless was of the opinion that the War Department would be criticized and that some of its officials would be described as "stooges" for the steamship owners if overtime were not conceded. Reporting on the conference to the Chief of Transportation, in a memorandum dated 12 September 1942, Colonel Franklin concluded: "We got whipped on the overtime but held the line elsewhere." As will be shown below, effective 1 November 1942 overtime payments were initiated for the crews of vessels operated by the Transportation Corps.

Labor Policy for War Department Vessels

On 31 October 1942 the War Department at long last issued a declaration of labor policy covering its vessels operated by the Army Transport Service. Briefly, the policy provided that there must be no discrimination by reason of race, color or creed; that employees should be free to join or to refrain from joining employee organizations; that the crew of any vessel taken over by the War Department for operation should be given preference in employment thereon; and that the prevailing wages in the industry would be "observed on all vessels operated by the War Department, including emergency and overtime wages, war bonuses, repatriation and allotment conditions, effective November 1, 1942."

The statement of policy also stipulated that persons discharged on suspicion of subversive activities should have an opportunity for review of the charges. Similar provision was made with respect to

discharge based on other forms of misconduct. All grievances were to be adjusted and disputes settled "only upon termination of the voyage in a continental port in the United States." However, mass meetings and the formation of committees aboard ship were to be permitted, as was also the submission of petitions or requests through proper channels. Any grievance or dispute not settled to the satisfaction of the employee might be taken up as a last resort through the Chief of Transportation with the Secretary of War. Finally, it was declared that the Master was to be in full charge of the navigation and management of the vessel and was to have "full and sole authority for maintaining discipline" during the voyage.[20]

This War Department statement of labor policy included a provision for overtime compensation. Overtime payments were to begin on 1 November 1942 and were to be made in accordance with "the local prevailing practice" of the maritime industry.[21] Rates and conditions for overtime payments were based on representative union agreements tempered by operating experience. At present, records of overtime pay due and paid are kept on each Army vessel, and the Ship's Transportation Agent submits an itemized report of the overtime earned on each voyage. As of May 1945 overtime falls into two main categories, ship's overtime and cargo overtime. Cargo overtime has been paid

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20 See War Department Memorandum No. W620-4-42, 31 October 1942. Cf. War Department Civilian Personnel Circular No. 80, dated 17 July 1944, entitled, "Policy Governing Marine Personnel Administration."

21 See OCT Personnel Bulletin No. 10, 28 January 1943.

notably in the Alaskan command, where in the absence of commercial stevedores, members of the crew often must work the cargo.

Current Manning Procedure

At present (May 1945) there are two main types of cargo vessels to be manned for Army service. The first type consists of vessels owned by or operated under bareboat or sub-bareboat charter by the Transportation Corps, Army Service Forces. The second type, which is by far the more numerous, is composed of vessels owned or controlled by the War Shipping Administration and allocated to the Army.

Manning the vessels of the War Shipping Administration is a subject beyond the province of this study. It may be noted, however, that the increasing number of new ships has placed a tremendous burden upon the WSA Recruitment and Manning Organization. Despite a vigorous training program there has been a continued dearth, throughout the wartime years, of experienced officers and seamen. During 1944 and 1945 the press and the radio have often publicized the acute shortage of marine personnel. The need of men for War Shipping Administration vessels has obtained not only on the Atlantic but also on the Pacific Coast, and the manning problem has been accentuated by the increasing numbers of vessels required for large scale assault operations such as the invasions of Normandy and the Philippines.[22]

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22 For the situation on the West Coast see the article by Lawrence E. Davies in the New York Times, 25 June 1944.

The manning problem remained acute throughout 1944 and is not likely to improve in 1945, since many seamen undoubtedly will seek more permanent work ashore in view of the cessation of hostilities in Europe. Nevertheless, although its interests are vitally affected by any failure to man the WSA Fleet, the War Department has no direct connection with this matter.

On the other hand, cargo vessels owned or operated under bareboat or sub-bareboat charter by the Transportation Corps present a real difficulty. The procedure with respect to manning such vessels is as follows; for each vessel within this category a manning scale is established, whereby the size of the crew is determined with respect to such factors as the size, motive power and prospective use of the ship. (Here it may be noted that for various reasons an Army crew is generally much larger than that employed on the same ship in commercial practice.) Action toward setting up a manning scale for a given vessel originates at the port of embarkation to which the vessel is assigned. The original request from the port is transmitted to the Office of the Chief of Transportation at Washington, where it is reviewed in the Water Division and in the Industrial Personnel Division,[23] after which an authorized manning scale is set up and transmitted to the port.

The freighter MORLEN may be cited as having a typical manning scale. As of 20 October 1942 it had the usual four operating depart-

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23 The Water Division recommends and the Industrial Personnel Division authorizes the manning scale.

ments—Administrative, Deck, Engine, and Steward—headed respectively, by the Ship's Transportation Agent, the Master, the Chief Engineer, and the Chief Steward.[24] The highest paid individual was the Master, who then drew a total salary of $6,026 per annum, as compared with $5,495 for the Chief Engineer, $3,750 for the Ship's Transportation Agent, and $3,114 for the Chief Steward. The entire civilian crew numbered 36.

Once the manning scale has been established, it is the task of the port to fill the various authorized positions. Personnel for the Army's cargo ships is obtained in a variety of ways—sometimes with the assistance of the War Shipping Administration—by use of the so-called "hiring halls" maintained by the maritime unions, by independent application from individuals seeking employment, and by recruitment. Certain ports, notably New York, maintain a standby pool or reserve (Vessel Manning Cadre), from which crews can be furnished as needed.

The Transportation Corps offers to all civilian employees on Army transports all rights and privileges enjoyed by other civil service employees, although, strictly speaking, the positions aboard Army vessels are not subject to the Classification Act of 1923, as amended.[25]

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24 As of May 1945, a few additions had been made to the crew, raising the total to 40. There was no change in the Engine Department. However, there were added a Ship's Transportation Clerk, a pilot, a boatswain, and a messman. Basic salaries have remained unchanged.

25 War Department Civilian Personnel Circular No. 80, 17 July 1944, par. 3. Civilian employees on Army transports are eligible for compensation for injury and retirement benefits as provided by law. They also are granted sick and annual leave in accordance with the prevailing regulations for Federal employees.

The Ship's Transportation Agent

The Ship's Transportation Agent, a civilian, is the chief administrative employee aboard an Army cargo ship. He is responsible for all War Department supplies and property required aboard and serves as a special disbursing agent. He lives literally surrounded by reports accounting for subsistence received aboard the vessel and the funds secured by him from the Fiscal Director, Army Service Forces. Frequently he works alone, but on occasion, depending on the size of the vessel, he has several assistants. On the M. G. ZALINSKI, for instance, as of August 1943 the Ship's Transportation Agent was assisted by one clerk. As of the same date, on the LAKEHURST, ex-SEATRAIN NEW JERSEY, the Ship's Transportation Agent was assisted by three clerks.

Navy Gun Crews

Navy gun crews, or Armed Guards as they are frequently called, vary in size. They have the task of standing guard at all hours of the night and day to protect the vessel against enemy action. Armed Guards originally had many clashes with civilian personnel on Army freighters. The Armed Guard Officer on occasion was considered unduly officious, and in turn he complained of the conduct of the crew, the members the Armed Guards to cope with the enemy. The disparity between the modest pay of the Navy gun crew and the war-inflated wages of the seamen frequently led to ill feeling. More recently, however, following clarification of the respective responsibilities

of the Armed Guards and the civilian crews, plus cooperation in defense of the ship, the bitter relations of the past have largely disappeared. Armed Guards, of course, are stationed not only on Army-owned and chartered vessels but also on the ships allocated to the Army by the War Shipping Administration.

Cargo Security Officers

Late in 1942 plans were developed by the Transportation Corps to place so-called "Security Officers" aboard vessels allocated to the War Department by the War Shipping Administration. The reason underlying this action was the necessity of having aboard each vessel on which the Army had loaded any considerable amount of cargo a commissioned officer who was responsible for the handling and delivery of manifests to the proper authority at the port of discharge and the prevention of pilferage, breakage and mishandling of military supplies and impedimenta aboard. If troops were carried, the commanding officer was to assume such duties. Available casual officers also could be utilized for this purpose. In the event that no such personnel could be obtained, a commissioned officer was to be assigned to the vessel to serve as "Security Officer."[26]

Actually, Cargo Security Officers (as they were soon called) were desired primarily in order to prevent pilferage.[27] Assigned to various

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26 Cf. letter of 8 December 1942 from Col. John M. Franklin, Chief Water Division, OCT, to Mr. J. E. Cushing, Assistant Deputy Administrator, War Shipping Administration. File SPTOW 210.321 T "Army Vessels."

27 See teletype of 19 October 1942 from the Chief of Transportation to the Port Commanders.

vessels during the spring of 1943, these officers were regarded by the Chief of Transportation, Major General C. P. Gross, as supercargoes to be organized on a permanent basis, but with full realization that as such their life aboard ship would be "rarely pleasant." Accordingly, General Gross requested that Mr. Lewis W. Douglas of the War Shipping Administration do all he could to promote cooperation on the part of the masters.

On 26 March 1943 General Gross informed Mr. Douglas that the Army was "suffering great losses due to pilferage," much of which occurred on board ship. At a staff conference held on the same day by General Gross, it was decided that the Army would place a supercargo (officer) on each ship carrying Army cargo in any considerable amount. This officer would not be a casual but would be under the control of the Transportation Corps.

Under date of 1 May 1943, acting for the Chief of Transportation, Colonel F. B. Hodson forwarded a detailed memorandum to the Commanding General, New York Port of Embarkation, directing that a number of officers be selected, trained and assigned to cargo vessels as Cargo Security Officers. These officers were to familiarize themselves with the locations of various types of cargo; to learn the code markings and clear destination of cargo; to make frequent inspections of cargo and hatches enroute; and upon arrival overseas to request adequate guards to check all compartments for overlooked cargo, and to deliver personally copies of the cargo manifest to the proper port authority and to obtain a receipt thereof. They were also to

report all irregularities and losses through pilferage and breakage. As of June 1943 a considerable number of second lieutenants were selected for assignment as Cargo Security Officers, of whom the largest number were assigned to the New York Port of Embarkation.[28]

Throughout 1943 Cargo Security Officers were assigned to cargo vessels allocated to the Army by the War Shipping Administration. These officers in turn were given many extra duties. Thus, when troops were carried, they had to serve as transport commanders. Furthermore, at all times they were utilized as roving intelligence officers. Since they were invariably of comparatively low rank, second or first lieutenants at best, they often complained of being overruled by officers aboard who were of higher rank. Nor did they always find the ship's master cooperative, while the crew were inclined to resent their efforts to safeguard highly desirable items such as cigarettes, candy, and liquor. In foreign ports Cargo Security Officers on occasion had to contend with "Allies" who were none too cooperative.[29] In short, their job was no sinecure.

Much of the difficulty encountered initially by Cargo Security Officers may be traced to the fact that their responsibilities at

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[28] For further details see correspondence of March-June 1943 in OCT File 323.36, "Cargo Security Officers."

[29] Cf. the plight of the Cargo Security Officer aboard the CHRISTOPHER GADSDEN who complained of British inefficiency and failure to check cargo in Algeria except for whiskey and beer. His comment was that "the British steal from the Americans, the Americans steal from the British, and the French steal from anybody." The only code, he concluded, "seems to be that you don't steal from your own outfit." This Cargo Security Officer was in Algeria from 15 August to 3 October 1943.

first were ill defined. Subsequent clarification, late in 1943 and especially during 1944, improved their situation to a considerable degree.[30] Not until December 1943 was the position of the Cargo Security Officer formally recognized in an official War Department Circular. This directive stated that the mission of a Cargo Security Officer was (a) to forestall mishandling and pilferage of Army cargo at ports and enroute; (b) to report damage and pilferage and to make recommendations toward reducing such losses; and (c) to deliver documents and special cargo entrusted to his care to the proper authority overseas, obtaining receipts therefor.[31]

The same circular prescribed other duties for the Cargo Security Officer before sailing, during the voyage, and after arrival. Before sailing he was expected to be present during the loading operations and to be familiar with the nature and stowage of the cargo, particularly special cargo such as currency, narcotics, cigarettes and mail. In company with the master or his representative he was to make a final inspection of the security of all hatches, manholes and ventilators leading to cargo spaces and of the adequacy of lashings securing the deck cargo. He was to obtain manifests, stowage plans and lists of special cargo for delivery to the master. Enroute, the

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30 Cf. the remarks in the processed proceedings of the Port Commanders' Conference, New Orleans, January 1944, vol. I, p. 102 et. seq.

31 See War Department Circular No. 337, 28 December 1943, Sec. V. Cf. War Department Circular No. 387, 27 September 1944, Sec. I.

Cargo Security Officer was to make frequent inspections of all accessible cargo, particularly special cargo, and of the lashings and hatches, with a view to detecting any irregularities. After arrival, he was to inform the port commander of the presence aboard of special cargo and cargo susceptible to pilferage, and of any other circumstances necessitating the posting of guards. He was to deliver manifests, stowage plans and lists of special cargo to the proper port authority, obtaining receipts therefor; to be present during all unloading operations; to pay particular attention to the safeguarding of special cargo, and to report any irregularities. Finally, he was to prepare and forward appropriate reports to the commander of the home port with respect to his activities during the voyage.

In June 1944 a special inquiry was made by the Chief of Transportation into the effectiveness of cargo security. The reports received indicated that, in general, the employment of Cargo Security Officers had produced good results, notably in the reduction of pilferage during loading and enroute to the overseas theater. At Seattle, for instance, the Commanding General reported that, on the Alaskan run, many Cargo Security Officers had gained valuable experience which was of considerable service to the Army. At the New Orleans Port of Embarkation the observation was made that the effectiveness of Cargo Security Officers depended largely upon the experience, training and personality of the individual, although it was felt that the mere presence of such an officer during loading and unloading operations served to reduce pilferage and damage to cargo.[32]

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32 For further details see the original replies of June 1944 in OCT File 323.36, "Cargo Security Officers."

At sea the Cargo Security Officer, unless burdened with the care of troops aboard, had a comparatively quiet life, interrupted only by routine inspections of cargo and deck lashings. Once he learned to get along with the master and crew, he might expect little or no difficulty unless the vessel was attacked by the enemy. But upon arrival at the overseas destination, he often found himself hard pressed to maintain adequate vigilance over the unloading of cargo. His problems were especially difficult at ports where local labor was utilized, but crew members and Army stevedores also were susceptible to the lure of pilfering. Night discharging, frequently carried on with inadequate light, and sometimes interrupted by air raids and blackouts, seriously handicapped his work.

During 1944 as his status became clearer and as jurisdictional differences tended to disappear, the lot of the Cargo Security Officer was perceptibly improved. On 27 September 1944, by War Department Circular No. 387 (Sec. I) his assignment, duties and mission were more fully defined. The primary responsibility for the security of cargo still remained with the commander at the port of loading, with the master of the vessel while enroute, and with the commander of the port of discharge. Cargo Security Officers were to be assigned to all vessels carrying Army cargo, except Navy vessels and those carrying less than 1,000 measurement tons of Army cargo. Mission and duties as stated in this circular remained substantially unchanged from what had hitherto obtained. It was, however, made plain that Cargo Security Officers detailed aboard War Shipping Administration vessels were not

to be construed as part of the ship's crew. Provision also was made for furnishing the required personnel for this purpose on outbound, intra or inter-theater, and inbound voyages. Responsibility was fixed for the assignment and training of Cargo Security Officers. For voyages originating in the United States, assignment and training were the responsibility of the Chief of Transportation.

In an effort to strengthen the position, by a recent change effective 12 May 1945, the duties formerly assigned to the Cargo Security Officer were transferred to the Ship Transportation Officer, who acts as a representative of the Chief of Transportation, Army Service Forces, or of the commanding general of the theater for intra-theater movements.[33] The mission, notably with respect to forestalling mishandling and pilferage of Army cargo, and the duties of the Ship Transportation Officer are the same as those prescribed for the Cargo Security Officer. Responsibility for the selection of and proper performance of duties by each Ship Transportation Officer rests with the commander of the United States or overseas port who assigned the Ship Transportation Officer for the voyage. Training, however, is to be as prescribed by the Chief of Transportation, Army Service Forces.

The assignment of a Ship Transportation Officer to a vessel does not alter the primary responsibility of others concerned, particularly the commander of the home port, the master of the vessel and the

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[33] See War Department Circular No. 141, 12 May 1945, Sec. II.

commander of the port of discharge. Circular No. 141, designating the Ship Transportation Officer, also makes detailed provision for investigation of pilferage and for an appropriate report to be prepared in quadruplicate. Finally, it should be noted that a Ship Transportation Officer is to be assigned to each vessel which carries more than 1,000 measurement tons of Army cargo having any of the following characteristics:

(1) Hazardous (ammunition, explosives, packaged gasoline, etc).
(2) Refrigerated (reefer).
(3) Critical (narcotics, medicinal spirits, currency, optical goods, etc).
(4) High priority.
(5) Easily pilferable (liquor, beer, Army exchange supplies, personal effects, quartermaster resale items).
(6) Mail.
(7) Mixed general.
(8) Destined for more than one port of discharge.

Assignment is optional (at the discretion of the commander of the port of loading) --

(1) When the cargo consists only of organizational equipment.
(2) When the vessel is carrying a shipment of Army airplanes or special cargo.
(3) When the vessel is a seatrain.

Assignment will not be made when vessels are wholly loaded with bulk commodities (lumber, grain, coal, etc.).[34]

Stores, Supplies, and Fuel

Stores (i.e. subsistence), supplies (tools, brooms, rope, etc). and fuel present no special problem for the average cargo vessel in

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[34] Cf. War Department Circular No. 141, 12 May 1945, Sec. II.

Army service loading at a United States port. Subsistence stores and supplies are delivered at shipside where they are checked and receipted for by the storekeepers of the various departments of the vessel to which they appertain. Usually stores are carried to the full capacity of the vessel. The fuel supply may be replenished enroute. Subsistence stores must be accounted for by the Ship's Transportation Agent at the end of the voyage. At present the policy of the Chief of Transportation is that supplies issued for use on Army vessels under his jurisdiction shall consist of standard stocks insofar as possible.[35]

Convoying Problems

Convoys held important implications for cargo ships. In the first place, the necessity of waiting for escorts inevitably brought about considerable delay. Only in unusual cases was the Navy willing to allow a vessel in the Atlantic to sail unescorted, and in any event, whether in the Atlantic or Pacific, no cargo ship could sail until the proper clearance had been received from the Navy Department.

At New York, for example, after the required arrangements had been made in Washington, D. C., by the Navy Department and the War Department, and after loading had been completed at the port of embarkation, a convoy conference was held at the Office of the Port Director, the local representative of the Navy. Generally scheduled

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35 Cf. TC Circulars No. 80-16, 4 April 1944; No. 5-21, 6 December 1944; and No. 150-29, 6 January 1945.

for the day before the departure of the vessel, this conference was attended by the commanding officers of the United States Navy vessels participating and the masters of the merchant vessels to be convoyed. At this meeting distribution was made of a complete list of routing instructions, together with directions to be followed should any vessel become detached from the convoy. The required codes were checked; the hour of departure was agreed upon; the rendezvous at sea was designated; and the formation of the convoy and of the escort vessels was prescribed. Upon reaching the point of rendezvous the convoy formed and was ready to proceed on its course at the pre-arranged speed. Essentially, the setting up of convoy schedules has been and still is the function of the Navy Department, although escorts are furnished both by the United States Navy and the British Navy.[36]

During World War I considerable emphasis was placed upon speed as a protective measure, and it was said that fast vessels came and went almost at will without suffering attack.[37] Nevertheless, it is not certain that speed alone or convoy protection have proved wholly effective during the current conflict, since there have been some losses of comparatively fast escorted vessels. Indeed, losses

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36 On the making up of convoys see memorandum of 18 September 1942 from the Assistant Port Director, Commander M. L. Worrell, to Historical Records Officer, New York Port of Embarkation. Files of Historical Unit, OCT.

37 Cf. Benedict Crowell and Robert F. Wilson, The Road to France, vol. II (New Haven, 1921), Chapter XXXI, "The Technique of Convoying."

suffered on convoys as compared with those on unconvoyed vessels hardly provide a true picture, since convoying almost invariably takes place in combat areas while vessels frequently sail unescorted in less dangerous waters.[38]

There were many difficulties connected with convoying. For one thing, unless all ships in the convoy could maintain the same speed, one or more of them might become stragglers. Enemy submarines often lurked around the convoy, on the lookout for stragglers. An impressive list of such victims could be compiled. Thus, the well-known American merchant vessel, CITY OF FLINT, was lost when it became separated from a convoy near the Azores on 25 January 1943.

The United States Navy (Admiral E. J. King) expressed considerable concern over the sinking of stragglers, and during April 1943 requested that all incoming ships in convoy be inspected to determine their material condition so as to correct any mechanical defects responsible for straggling. The British also were disturbed at such losses. Ships that straggled or broke loose from the convoy were likely to be torpedoed and often they were abandoned prematurely, although there were instances in which the stricken vessel could have been or actually was kept afloat.

No vessel aroused greater concern in the United States Navy than

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38 Cf. the studies on Army cargo losses with and without convoy protection for the period 1 December 1941 through 30 June 1943, Monthly Progress Report, Transportation, OCT, ASF, 30 June 1943, pp. 16-17.

the merchant ship which smoked, making it a highly visible target at sea. At the time when stragglers were singled out for attention, the prevention of smoking was also stressed by the Navy Department. In May 1943 appropriate instructions in this regard were sent by the Chief of Transportation to the various Army ports of embarkation, with the request that necessary action be taken to insure that vessels sailing therefrom were not in such condition as to endanger the convoys.[39]

The masters aboard the merchant vessels frequently were inexperienced, and in the course of making rapid maneuvers in order to avoid reported enemy submarines, collisions were numerous. In part, such mishaps could be traced to the hasty expansion of the merchant marine, necessitating rapid promotion or up-grading of personnel. In a memorandum of 23 April 1943 for the Army Chief of Staff, George C. Marshall, Admiral Ernest J. King noted that in the early convoys to North Africa no fewer than nine vessels had been sunk or damaged by collisions which could be attributed largely to inexperienced masters. For this reason Admiral King believed that the convoys should be limited to about 40 ships, including tankers. He himself had set a minimum speed of 9 knots for cargo convoys to North Africa because of the number of vessels involved and because of the dangerous submarine infested areas through which they had to pass.

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39 For details see OCT File 045.4, which related to the prevention of straggling and smoking.

Convoys proceeded of necessity without navigation lights. At night the vessels were completely blacked out, and for protection they were usually arranged in a fairly close formation, so that any sudden shift in position might very well result in collision. To cite an example, the NORTHERN SWORD, a vessel operated under bare-boat charter by the Army, while traveling in convoy in February 1943 collided with the FISHER AMES and some hours later sunk. (Although all passengers and crew were saved, the vessel and the cargo aboard were a total loss.) At the time of the collision both ships were darkened and there was no moon, but visibility was said to be good. Apparently the helmsman of the NORTHERN SWORD lacked experience, and in an effort to avoid running into another vessel (the EXTAVIA) he caused his ship to strike the FISHER AMES. The Navy Board, which investigated the incident, reported that "from all appearances the collision was caused by inexperience on the part of the helmsman furthered by the close-up formation of the convoy."[40]

After the spring of 1943 the situation with respect to convoy protection improved, although losses by no means were stopped. Thus, a Boarding Report[41] of the Liberty ship SS ROGER MOORE, dated 6 August

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40 See letter of 5 June 1943 from Deputy Chief, Water Division, OCT, to Chief Adjuster, Division of Wartime Insurance, War Shipping Administration, New York, New York. This communication, based upon the official investigation of this casualty, if found in OCT File SPTOW 231.8 O (NORTHERN SWORD).

41 As a rule, at the Army ports of embarkation each cargo vessel arriving from overseas is boarded by an intelligence officer who prepared a Boarding Report to cover information gleaned from the ship's officers and men.

1943, revealed that outbound the convoy consisted of 80 ships with twelve escorts, while inbound there were 45 ships with about 12 escorts. "No ship was lost either way," and the escorts, it was believed, destroyed one submarine on the outward passage and two "definitely" on the return voyage. During this period convoys to the Mediterranean, of course, sailed via Gibralter. Accordingly, outbound they were designated as UGF or UGS convoys, the "F" standing for fast and the "S" for slow convoys from the United States, while the "G" stood for Gibraltar. At Gibraltar escorts were secured for the Mediterranean. There was frequent complaint on the part of officers on American vessels regarding the inadequacy of the protection afforded by the British, who were generally responsible for escorting convoys beyond Gibraltar. In addition to submarines, the convoys moving in this area had to contend with land-based airplanes.

It should be noted that as shipping conditions improved, it became feasible to sail fast freighters unescorted. Beginning in 1944, as Victory ships became available, and as the submarine menace receded fast cargo ships frequently traveled alone across the Atlantic, usually carrying high priority equipment. With the cessation of hostilities in the European theaters, and as soon as the German submarine commanders have surrendered their craft, convoying may be expected to cease in the Atlantic.

Problem of Overseas Discharge

During the present war the Army has had to contend with two serious factors limiting overseas discharge. The first arises from the fact that Army cargo contains many heavy lifts--exceptionally

heavy items of cargo which may be in excess of the capacity of the vessel's gear. Secondly, Army vessels must call at ports which are either devastated by enemy action and hence lacking in usable port facilities, or are so primitive with respect to equipment that the ship's gear must be employed for discharge.

Even before the United States entered the war it was necessary to provide for heavy lifts. The establishment of the Atlantic bases entailed the shipment of much bulky, heavy and unwieldy cargo which was beyond the capacity of the tackle of the average cargo ship. The inauguration of the lend-lease program in the spring of 1941 also entailed the shipment of many heavy items, notably tanks and locomotives, which in many instances had to be discharged at ports where the shore facilities were incapable of handling such cargo.[42] There were two ways of meeting the problem--to strengthen the ship's gear and to send lifting equipment to the overseas port.

Since Liberty ships are in the great majority among the Army's cargo vessels, the earliest efforts were directed toward increasing their cargo handling capacity. The first Liberty ship had only a thirty-ton boom at the No. 2 hatch and a 15-ton boom at No. 4. Subsequently this arrangement was changed to a fifty-ton boom at No. 2 and a 30-ton boom at No. 4, in addition to the two five-ton booms at each of the five hatches.

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42 Memorandum of 5 November 1941 from Major Gen. J. H. Burns, Office for Emergency Management, to Major Gen. R. C. Moore, Deputy Chief of Staff, G-4. Cf. G-4 File 32697-18.

As early as 7 November 1941 Lt. Colonel Frank S. Ross, Transportation Branch, G-4, called attention to the need of heavier booms on freighters, particularly thirty-ton booms, to handle medium tanks for amphibian operations. It was his opinion that the shipment of heavy lifts, including medium tanks, should be confined to vessels carrying thirty-ton booms, unless adequate terminal facilities were available at destination. In addition, with particular regard to lend-lease shipments, he recommended that several cranes of either the dock or floating type be procured in advance of the need. Such cranes, he thought, "unquestionably would prove an ace in the hole if badly needed."[43]

In July 1942 Colonel C. H. Kells, Executive, Water Division, OCT, praised the performance of the Liberty ships, but requested that on all new vessels of this type "guards be fitted on winches to keep cargo falls clear of gears." This request, he said, originated from an overseas base. Colonel Kells also asked that additional sets of cargo handling gear be provided at the after end of the No. 2 hatch, since this, it was believed, "would materially speed up discharge and loading."[44]

In December of the same year Colonel D. C. Watkins, then Executive, Water Division, OCT, informed the War Shipping Administration

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43 Memorandum of 7 November 1941 from Lt. Col. Frank S. Ross, Transportation Branch, G-4, for Col. Cheves.

44 Letter of 21 July 1942 from Col. C. H. Kells to the United States Maritime Commission, Washington, D. C. OCT File SPTOW 574 M Liberty Ships.

that reports received from overseas indicated that the jumbo booms installed at the No. 2 hatch on Liberty ships were too short to handle Army cargo. Colonel Watkins therefore recommended that jumbo booms (30 ton capacity) of 61 feet in length, be provided on all Liberty ships assigned to the Army, the object being to clear the shipside with the lifts that would have to be handled. Colonel Watkins also stated that an extension of 10 feet on the present boom would not be a satisfactory solution, since "it is believed that the booms should be originally constructed of the length above indicated with all dimensions suitable for handling the full load on the 61-foot designed length."[45]

In September 1944, a number of Mikado type locomotives were required in assembled form in the Southwest Pacific area. It was assumed that these locomotives would have to be loaded and discharged by means of the ship's gear, since no floating cranes were known to be available at the destination. Since these locomotives, assembled, weighed approximately 80 tons, a boom of that capacity was required. The Maintenance and Repair Branch of the Water Division, OCT, accordingly was requested to furnish data as to strengthening the pedestal and installing an 80-ton boom in place of the 50-ton boom, on either a Victory or Liberty ship. In addition, the Stevedoring and Ship

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45 Memorandum of 23 December 1942 from Col. D. C. Watkins to the War Shipping Administration. OCT File SPTOW 563.5 (Army Vessels). Apparently no 61-foot jumbo boom was obtained for Liberty ships. The Victory ship, however, has a 60-foot jumbo boom.

Facilities Branch of the Water Division, OCT, was consulted, where it was learned that from four to six locomotives of this type could be carried on a Liberty or Victory ship, providing a boom of the proper size could be installed.[46]

A more difficult problem was presented when a number of 86-foot tugs were shipped in pairs on the after decks of Liberty ships. Because of the weight involved--approximately 200 tons--the decks had to be reinforced. The only available equipment in North Atlantic ports to lift such a heavy load was the former battleship KEARSARGE, which had been converted to a crane ship by the Navy Department. By means of the 250-ton revolving crane on the KEARSARGE, these tugs were loaded safely at the New York Port of Embarkation, and then lashed and blocked in cradles for the long overseas voyage to the European Theater of Operations. These tugs could be unloaded only at certain English ports which had the necessary heavy lift equipment, since in this instance the ship's gear was quite inadequate.[47]

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46 Memorandum of 18 September 1944 from Chief, Ocean Traffic Branch, to Chief, Maintenance and Repair Branch, Water Division, OCT.

47 From data compiled for annual report of Water Division, OCT, Fiscal Year 1944.

V

DEPLOYMENT AND UTILIZATION

The deployment of Army vessels naturally has varied with the progress of the war. Just before and for a period following the attack on Pearl Harbor, most of the cargo vessels in Army service were operating in the Pacific, initially in the reinforcement of the Philippines and subsequently in the supply of Hawaii and Australia. This concentration of cargo vessels in the Pacific continued, roughly speaking, until the summer of 1942. As of April 1942 the Army had 133 cargo ships in the Pacific (including Alaska) as compared with only 54 in the Atlantic (including the Caribbean).[1] As of July 1942 the Army had 141 cargo ships in the Pacific, as compared with 118 in the Atlantic.[2]

Our first great offensive operation, however, was to take place in the Atlantic. Consequently, during the summer and fall of 1942 there was a marked build-up of the Army's cargo fleet in those waters, preparatory to the invasion of North Africa. Thus, the Army's cargo ships in the Atlantic area, which had totaled only 126 at the end of June 1942, had mounted to 262 ships at the close of October 1942, and the cargo capacity had increased from 1,051,303 measurement tons to 2,431,418 measurement tons.[3] During the same period, June-October

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1 Statistical Summary, Transportation Service, SOS, vol. 1, April 15, 1942, p. 29.

2 Ibid., vol. 7, July 15, 1942, p. 10.

3 Monthly Progress Report, Transportation, OCT, ASF, November 1942, p. 12.

1942, the number of Army controlled cargo ships in the Pacific area averaged approximately 150 per month and never reached a cargo capacity of more than about 1,400,000 measurement tons.[4]

During 1943 the major emphasis continued to be placed on the European Theater of Operations, as large numbers of cargo ships were consistently required for the completion of the North African campaign and the penetration into Sicily and Italy. As of 30 June 1943, cargo ships in Army service in the Atlantic had a total deadweight tonnage of 4,260,067, as compared with 1,503,390 deadweight tons for cargo ships in the Pacific area. This concentration of shipping in the Atlantic area added up to the obvious fact that our principal effort was still being concentrated in the European Theater.

In the Atlantic, from the fall of 1943 to the early summer of 1944, the concentration of cargo ships was directed toward the invasion of France. As of 31 May 1944, of a total of 1,281 cargo vessels in Army service, 799 ships with a deadweight tonnage of 8,029,000 tons were operating in the Atlantic area, as compared with 482 ships with a deadweight tonnage of 4,413,200 in the Pacific. Thus the weight of our shipping resources was still predominately in the Atlantic, where it was to remain until the Axis powers had been defeated.[5]

Although the Army's cargo ships in the Pacific area were fewer in number and had less deadweight tonnage than the Army cargo fleet

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4 Ibid., November 1942, p. 14.

5 Ibid., 31 May 1944, p. 18.

in the Atlantic, it must be recalled that the Navy had a considerable concentration of combat and merchant ships throughout the Pacific. It was the coordinated use of Army and Navy shipping, in the period following the dark days of 1942, which made possible the progress in the long hard advance from island to island in the vast reaches of the Pacific.

When General Douglas MacArthur left the Philippines he promised to return, but this return did not take place until the invasion of Leyte in October 1944. Preliminary to this invasion was a steady increase in the number of cargo ships in Army service in the Pacific. As of 30 September 1944 the Army had under its control in this area 539 cargo vessels with a deadweight tonnage of 4,857,800.[6] As of 31 December 1944 the predominance of cargo ships was still in the Atlantic, which then had 853 cargo ships with a deadweight tonnage of 8,656,700, as compared with 667 cargo ships with a deadweight tonnage of 6,322,100 in the Pacific. It will be noted, however, that the disparity between the two areas was closing.[7]

In February 1945 a change was made in the basis of counting vessels in Army service, utilizing new definitions and more timely information but resulting in figures not wholly comparable with those published for preceding months.[8] Nevertheless, the statistics of

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6 Ibid., 30 September 1944, p. 12.

7 Ibid., 31 December 1944, p. 66.

8 Ibid., 28 February 1945, p. 54.

vessels in Army service on 31 March 1945 still showed a slightly larger number of cargo vessels in the Atlantic than in the Pacific. Specifically, as of that date, there were 664 cargo ships employed by the Army in the Atlantic area as compared with 621 in the Pacific area.[9]

As a result of the total collapse of Nazi Germany in May 1945, many Army cargo ships will be transferred to the Pacific area, but only after having handled the heavy return traffic incident to redeployment and demobilization.

Early Studies of Vessel Activity

It is important to know not only where but also how cargo vessels in Army service have been utilized. In this connection it may be helpful to bear in mind the normal cycle in the overseas shipment of Army cargo. Such cargo is first assembled at the home port in the United States and there loaded aboard ship. When the loading is done, the vessel sails. After a shorter or longer period at sea, as the case may be, the ship arrives at her destination, where the cargo is discharged. As a rule, the vessel then returns to the home port, thus completing the turnaround.

In the balance of this narrative, following a short account of certain studies of Army vessel activity made in 1942, attention will be directed first to the vessel at the home port, with particular emphasis upon the utilization of cargo space for the outbound voyage.

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9 Ibid., 31 March 1945, p. 50.

Next will be discussed the turnaround cycle of cargo vessels in Army service. Finally, consideration will be given to certain problems involving the Army's cargo ships in the overseas theaters.

Although the Water Transport Branch, OQMG, had kept some statistics on Army vessels, when the war came, the publication of such data was largely dropped for security reasons. Not until the Transportation Service had been established under the Services of Supply in March 1942 was publication resumed for certain statistical information relating to the Army's transportation problem. Reference is here made to the Statistical Summary published by the Transportation Service, of which the first volume appeared on 15 April 1942.

Prepared by the Control and Reports Division, this publication included a study of the activity of all vessels under Army control. Unfortunately the study covers all vessels, and does not differentiate between cargo ships and troop transports. The criterion of activity, however, is in measurement tons of cargo capacity. The initial study covered the period from 6 February to 11 April 1942, in the Atlantic and Pacific areas. It showed the number of measurement tons of shipping in an inactive status because of repairs, arming, or conversion; the number of measurement tons in United States ports loading or unloading; the number of measurement tons at sea, outbound or homebound; and the number of tons in foreign ports. For the period covered, of the total tonnage in the Atlantic area 2.68 per cent were in an inactive status; 34.18 per cent were in United States ports; 43.73 per cent were at sea and 19.41 per cent in foreign ports. For the Pacific

area the figures did not vary greatly, except for time spent in United States ports, in which case the ratio was about 6 per cent higher for the Pacific than for the Atlantic.[10]

A similar study was made somewhat later in the same year for the period from 1 March through 31 August 1942. By this time a larger number of ships was employed on the long trans-Pacific runs, and it was noted that because of the longer voyages in the Pacific area the proportionate time at sea was greater than in the Atlantic area. Conversely, the vessels spent proportionately more time in Atlantic home ports than in Pacific home ports, the ratio for the former being 25.8 as compared with 19.3 for the latter. Time spent in foreign ports was practically the same in both areas, as was also the time in active status.[11]

These studies of activity, although of value at the time, are not very helpful today because they do not indicate the number of ships involved, do not differentiate between cargo and troop ships, and do not show the number of days spent in the home ports, at sea, or in the foreign ports. To some extent, however, they did serve their stated purpose, which was to show "proportionate time in port versus time at sea."

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10 See Statistical Summary, Transportation Service, SOS, vol. 1, April 15, 1942, pp. 12-15.

11 Ibid., vol. 11, September 15, 1942, p. 12.

Utilization of Cargo Capacities at United States Ports

Throughout the war, compilations have been made periodically covering the troop and cargo capacities of vessels under Army control. Beginning with the Statistical Summary of April 1942, these compilations generally revealed the number of ships engaged, respectively, in carrying troops and cargo. The area of operations was also shown, together with deadweight tonnage and troop and cargo capacity. These records, however, simply indicated what the Army's freighters might contain, since not every vessel was loaded to full capacity.

In this connection, it must be remembered always that the loading of the Army's cargo ships is affected appreciably by such varying factors as available cargo at the port and the current requirements of the overseas theaters. The Army rarely can pick and choose its own cargo as does the average peacetime commercial operator. If the overseas theater commander requests a shipload of vehicles from the United States, that is what he will get, provided the vehicles are on hand, even though they constitute "balloon" cargo and by no means facilitate so-called full and down loading.

Accordingly, there has been considerable variation among the Army ports of embarkation with respect to the utilization of cargo ships. This variation is both understandable and inevitable when one recalls the different types of cargo to be loaded, the variations in the available types and quantities of cargo to be loaded, and the varying physical characteristics of the ships that are being loaded.

In August 1944, the Control Division, OCT, issued a detailed study,

Army Cargo Loading, which was based primarily on cargo analysis reports submitted by the several Army ports of embarkation. Much of what follows is based upon the material contained therein. References in parenthesis are to specific pages. First of all (p.1) during 1943 there was a substantial difference between the reported capacities of the vessels loaded and the tonnage actually loaded thereon, the total unused ship capacity amounting to an equivalent of 521 Liberty ships for all ports. As was to be expected at this time, the New York Port of Embarkation accounted for approximately 40 per cent of the unused bale cubic. As the port from which the heaviest cargo shipments were made, much of which consisted of aircraft and vehicles not conducive to economical stowage, this loss is hardly unusual.

Viewing the ports on a comparative basis for 1943 the same study (p. 1) indicated that there was only a difference of 5 per cent between the standard set by the two highest-ranking ports (San Francisco and New Orleans) and the percentage utilization at the three lowest-ranking ports (Boston, Portland, and Prince Rupert). During 1943, for instance, San Francisco and New Orleans each used an average of 83 per cent of the bale cubic capacity below deck on vessels loaded at those ports. Actually, as is recognized in the study, San Francisco and New Orleans represent two different types of cargo and ship sizes. San Francisco has had a good deal of poor stowing cargo, while New Orleans has loaded considerable subsistence that has stowed well.

As a whole, the average bale cubic cargo capacity of vessels loaded by the Army at the ports of embarkation has increased about

25 per cent since December 1941 (p. 2). Attention should be directed also to the fact that practically all the ports show a considerable range with respect to ship capacities. Ships loading for the Alaskan run, for instance, are generally small, while New York has many large vessels. Small vessels naturally present loading problems quite different from those found on Liberty vessels.[12]

Cargo loaded by the Army is mostly bulky material with a low density, and consequently there is usually a larger percentage of bale cubic capacity utilized than of deadweight capacity. As of August 1944, for example, the Army loaded cargo having a volume equal to about 90 per cent of the bale cubic capacity and between 70 and 75 per cent of the deadweight capacity. These estimates (p. 7) included the deck loads, which averaged about 10 per cent of bale cubic capacity and 4 per cent of deadweight capacity. Of bale cubic capacity below beck, about 80 per cent was utilized. As of this same date average bale cubic utilization had become fairly stable.

Comparisons (p. 8) between the ports, although to be accepted with caution, appear to indicate that during August 1944 the West Coast ports made a somewhat better showing than did the East Coast ports, chiefly because of larger deck loads in the former as compared with the latter area. Army Cargo Loading (pp. 8-9) includes a comparison of the average utilization at the various Army ports. Thus New

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[12] For detailed charts concerning the frequency distributions of deadweight and bale cubic capacity by ports, see Army Cargo Loading, pp. 4-5.

York utilized 73 per cent of the available deadweight and 87 per cent of the available bale cubic capacity below deck and on deck, whereas Los Angeles utilized 78 per cent of the deadweight and 104 per cent of the bale cubic capacity below deck and on deck. However, figures for New York covered 1,797 vessels as compared with only 243 for Los Angeles. Actually, at this time, New York was loading about one-third of all Army vessels, and therefore its performance carried great weight in determining the overall average for all Army ports.

Other comparisons might be drawn between the utilization of vessels by the Army as compared with that by the War Shipping Administration or by the Russians as was done in Army Cargo Loading (p. 13). Such comparisons, however, will be relegated to a separate study on the handling of Army cargo.

For April 1945 the percentage of available bale cubic capacity utilized by the Army was 87 per cent. Deadweight utilization, on the other hand, was 79 per cent, which represented the highest point reached since June 1943. Except for Boston and Philadelphia, all East Coast ports reported less utilization of bale cubic in April than in March 1945, but on the Gulf and on the West Coast all ports except San Francisco and Seattle showed greater utilization. As of April 1945, a comparison of the utilization of vessel capacity between loadings on the East Coast and on the West Coast showed a better percentage use of bale cubic capacity below and on deck on the West Coast. However, at this time the trend in utilization in each instance had been gradually downward since the beginning of 1944, particularly

on the East Coast. The decline on the East Coast could be traced largely to special loadings to comply with the requests of the European Theater.[13] Caution must always be exercised in comparing the performance of the various ports with respect to utilization of cargo capacity because of the many variable factors involved.

The Turnaround Cycle

A comparative study of the turnaround cycle of troop and cargo vessels in Army service in World War I and World War II was published in December 1942 by the Statistics and Progress Branch of the Control Division, OCT.[14] It showed that in World War I, during the period from June to December 1917, the average turnaround for cargo vessels between United States and French ports was 83 days. For 106 round voyages between the United States and the United Kingdom during the period February - October 1942 the average turnaround was 65 days. The study for World War II included only part of the cargo ships sailing in Army service, since data for all such vessels were not available. The reduction in turnaround time as between World War I and World War II was in days spent in United States and overseas ports. The number of days at sea was slightly greater in World War II than in World War I.

During 1943 several special studies were made of the turnaround

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13 See Monthly Progress Report, Transportation, OCT, ASF, 30 April 1945, p. 47.

14 Comparative Data, World War I -- World War II, OCT, ASF, December 1942, pp. 8-11.

of vessels in Army service. First, a record was compiled of all ships which ended their return voyages in the months of January and February 1943. The data covered the principal sea lanes then used by Army transports, including the runs from New York to the United Kingdom and to North Africa; from San Francisco to Hawaii and the Southwest Pacific; from Boston to Iceland and Greenland; from New Orleans to the Caribbean and the Canal Zone; from Seattle to Alaska; and from Charleston to the Red Sea and to India. Naturally the turnaround varied in accordance with the distances. Thus (for January 1943) while the average turnaround time from New York to the United Kingdom based on 12 round voyages was 52.2 days, the turnaround cycle from San Francisco (including Los Angeles and Portland, Oregon) to the Southwest Pacific and back averaged 100.8 days, while for nine round voyages from the Charleston (S.C.) Port of Embarkation to the Red Sea and India the turnaround averaged 174.7 days.[15]

In July 1943 the turnaround cycle again was discussed in a volume of comparative data for World War I and World War II. Employing World War II figures from the United States to foreign ports in all theaters of operation, which were "weighted in proportion to the number of voyages and the distance to each port," this study showed that for cargo ships in Army service, the average turnaround cycle was 80 days for World War I as compared with 68 days for World War II. Less time was spent in port in the present than in the last war, presumably indicative of greater efficiency in port operations. On the other hand, because

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15 See Monthly Progress Report, Transportation, OCT, ASF, 28 February 1943, pp. 76-84.

of the distances of the overseas destinations from the home ports, the time spent in outbound and inbound voyages in World War II is greater than the comparable time for World War I. When this compilation was published (July 1943), the average turnaround for cargo ships was 7,700 miles.[16]

As of 31 October 1943 a new study was made of the turnaround cycle of Army controlled cargo and troop carriers which ended their voyages by returning to the United States during the period March through October 1943. This turnaround cycle was computed from the time of entry on berth for Army service to the return of the vessel to a United States port. For cargo ships, it was discovered that the longest turnarounds involved the sailings from West Coast ports of the United States to India, which required 161 days, and to the South Pacific, which took 144.3 days. On the other hand, cargo ships from East Coast ports to the African Gold Coast required 118.5 days, while voyages to Greenland took 95.5 days. Included was a breakdown of ship's time spent in United States waters, in the destination area, and both outbound and inbound at sea. For the longest voyages--to India--it may be noted that 63 days were spent outbound at sea and 86 days inbound at sea, whereas only 12 days, all told, were spent at the loading port and at the destination port. For voyages to the African Gold Coast considerable time, 44 days, was lost at the destination ports---probably because of inadequate terminal facilities---whereas at

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16 See Comparative Data, World War I---World War II, July 1943, OCT, ASF, p. 10. It should be noted that the World War I figures were from the East Coast of the United States to France.

sea 27 days were spent outbound and 35.2 days inbound.

For the period under review the largest number of cargo ships (85) traveled to Mediterranean ports of North Africa. The vessels for these destinations had an average turnaround of 75.3 days and spent practically the same time--about 20 days--outbound and inbound at sea, whereas 12.6 days were spent at loading ports and 19.1 days at destination ports. Because of the necessity of traveling in convoy the time spent for sailing and awaiting convoy amounted to 3.4 days in the destination area as compared with 0.8 in United States waters.

During this same period, for voyages to the United Kingdom (31 ships), the turnaround time was 63.7 days, of which 14.6 days were spent at destination ports, probably because of delay in waiting berth and in discharging. This figure of 14.6 days, incidentally, was practically the same time as was spent outbound at sea, the latter amounting to 15.5 days.[17]

As of 31 May 1944, on the eve of the invasion of Normandy, the turnaround time of cargo vessels in Army service to both coasts of the United Kingdom, based on 1,412 sailings, averaged 69.4 days. This time included 18.4 days spent in the destination area, as compared with 22 days in United States waters. This study was based upon the 15-month period, January 1943 through March 1944, and the tabulation covered outbound United States controlled dry cargo vessels

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17 Monthly Progress Report, Transportation, OCT, ASF, 31 October 1943, p. 18.

(i.e., WSA, Army, and Navy controlled). All voyages were considered as having four legs.

This compilation, it should be noted, also illustrated the greatly reduced round-voyage time to the Red Sea and Persian Gulf ports by the way of Suez as against the former route via South Africa. This saving of time resulted from the fact that the United Nations again had control of the Mediterranean. For the Persian Gulf by way of South Africa the average turnaround time was 241.7 days, but by way of the Mediterranean it was 157.2 days. India continued to require considerable turnaround time, the average for this period being 180.3 days, of which 60.4 days were spent outbound, 69.4 inbound, 30.8 in United States waters (possibly awaiting cargo), and 19.7 days in the destination area, in unloading and awaiting arrangements for the return trip. The same tabulation showed that for voyages to North Russia the average turnaround time was 150.1 days, of which 32.9 days were spent in the destination area, probably reflecting delays in unloading, as compared with approximately the same number of days (38.6) spent on the inbound voyage.[18]

As of 30 September 1944 two other turnaround studies were published. First, a compilation was based upon the activity of 696 dry cargo vessels in Army service which completed round voyages between the United States and the United Kingdom within the period July 1943 through June 1944. Not included were many vessels which after being

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18 Ibid., 31 May 1944, pp. 14-15.

discharged in British ports were retained by the Army in European waters for local operations or passed out of Army service and were diverted to other assignments. The study indicated that the turnaround time between the United States and the United Kingdom averaged 75.9 days for the last half of 1943 as compared with 77.8 days for the first half of 1944.

Second, and for the same period, a study was made of the turnaround time of 343 dry cargo vessels in Army service between United States ports and ports in the South and Southwest Pacific. The results showed an extreme range of complete turnaround time from 60 to 330 days. During the last half of 1943 the average complete turnaround was 109.2 days, whereas the comparable figure for the first half of 1944 had increased to 134.5 days. Within the destination area, the days spent in discharge or loading ports increased on the average from 33 days for the last half of 1943 to 43 days for the first half of 1944. There was a slight shortening of the long legs at sea, due principally to shorter routes and an increased number of vessels sailing only to the nearer or more direct destinations.[19]

The latest available study of turnaround time of Army controlled dry cargo vessels was published on 30 April 1945. In it attention was directed to the fact that turnaround time varies in accordance with the distance traveled enroute and the time required to work the ships at their ports. For vessels completing the entire cycle of travel

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19 Ibid., 30 September 1944, pp. 10-11.

from a United States port to a theater and return in March 1945, it took an average of 72 days per ship for a round trip to the European Theater and 123 days to either the Southwest Pacific or India. (These times applied to ships which made the trip without any assignments for local operations in the theaters.) When ships receiving such local assignments were included in the factors determining the average travel time, the number of days to Europe increased one day, while the time to the Southwest Pacific rose from 123 to 200 days. It was further noted that because of the time involved in making a complete round trip to any theater, a picture of a complete cycle could not possibly be presented in any one month. At this time, for voyages completed during March 1945, covering regular operations, 261 vessels to the European Theater had an average turnaround of 72 days, as compared with 79 days (for 108 vessels) to the Mediterranean; 62 days (for 12 vessels) to the Central Pacific; 83 days (for 2 vessels) to the South Pacific; and 123 days (for 11 vessels) to the Southwest Pacific.[20]

Cargo Discharge Overseas

The rate of discharge of Army controlled vessels in overseas areas is of importance since any undue delay therein simply means that the available cargo fleet is proportionately reduced. Early in 1943 the Office of the Chief of Transportation began grappling with the problem of compiling adequate data from reports of the discharge per-

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20 Ibid., 30 April 1945, p. 48.

formance at overseas ports. In its original form the report used was intended to bring out the comparative performance of overseas ports in the discharge of cargo from vessels employed by the Army for the first half and the last half of each month. Included were the theater and the port involved, the number of ships completing discharge, the time spent in port and in discharge, the average discharge per day per ship in measurement tons, and a final comparative standing on a percentage basis with respect to improvement shown. The object was to stimulate the competitive element in overseas discharge, since by reference to this compilation one could determine how a given port, say, Abadan in the Middle East, compared with Liverpool in the European Theater of Operations, or with Noumea in the South Pacific, so far as speed of cargo discharge was concerned.

In the fall of 1943 this semi-monthly report of discharge performance was rather aptly entitled "Relative Standing of Theaters, Commands and Ports in Discharging Ships." In addition to furnishing actual discharge figures, an attempt was made to interpret prevailing conditions and to indicate causes of differences in discharge performance. By November 1943 the report had been standardized. It was then issued in a neat processed form, to which was appended a brief but valuable interpretation of the data at hand. Thus, for the period 1-15 November 1943, frank recognition was made of "local and temporary conditions" which resulted in a poor gross discharge performance, while due praise was given to the port organizations at Milne Bay and Oro Bay in the Southwest Pacific for "efficiency of net discharge

operations under difficult conditions."

Detailed analysis of the differences in discharge performance overseas is beyond the scope of this study, but since this subject bears an important relationship to the utilization of the Army's cargo fleet, it may not be amiss to discuss briefly certain further developments. There is some reason to believe that by the close of 1943 the Office of the Chief of Transportation had stimulated competition among overseas ports which had led to improved discharge performance. Thus, for the period 1-15 December 1943, it was noted that the "average net discharge figure for 1-15 December of 1,098 M.T. per day per ship" was "the highest on record." With a rare touch of humor it was intimated "that a rumor had made the rounds that Christmas turkeys were stowed at the bottom of every hold." At the same time the competitive element was stressed, and readers were encouraged to forward "complete details" of any plan which was considered appropriate to encourage "competition and esprit de corps."

Beginning with the period 1-15 February 1944 the title of the report on overseas discharge performance was changed to read "Utilization of Vessels Employed by U. S. Army in the Supply of Theaters from United States." The basis, however, continued to be comparative statistics on the performance of overseas ports in the discharge of vessels loaded in the United States. During the same month reference was made to a new cross-type cargo net which had been developed by the Stevedoring and Ship Facilities Branch of the Water Division, OCT.

This was a forerunner of many similar items which appeared in subsequent issues. Thus was accomplished a dual mission of circulating comparative data on discharge performance overseas and of disseminating information of value to interested personnel of the Transportation Corps.

A change in the reporting system for overseas discharge performance was necessitated in 1945 by the adoption of the combined Army, Navy and War Shipping Administration Ship Activity Reporting Procedure (ACTREP), and the discontinuance of the previous reporting procedure initiated early in 1943. Beginning with January 1945, the new form was called "Monthly Vessel Utilization Summary" (short title: MOVUS).[21] There can be no doubt that this reporting serves a useful purpose in calling attention to all the factors which contribute to efficient operation of the Army's cargo fleet. With the close of hostilities in the European Theater, further changes may have to be made, since in connection with redeployment certain ports in that area will become outports of Army ports of embarkation in the United States with respect to forwarding supplies and equipment to the Pacific. Heretofore, it should be remembered, the record has been confined solely to vessels loaded in the United States.

Ship Retentions in Overseas Theaters

Ships are retained in overseas theaters for several reasons.

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21 For further details see the issue of January 1945, p. 1. MOVUS, it should be added, is only one of several reports whereby the Transportation Corps analyzes and summarizes the activity of the vessels in its service.

First of all, retentions may be classified as permanent or temporary. Permanent retentions consist of vessels which form a part of the regular operating fleet of the theater. Thus General Douglas MacArthur has long had assigned to him certain vessels which he employs in local operations. Temporary retentions, on the other hand, consist of a number of vessels which from time to time, by decision of the Joint Military Transportation Committee, are authorized to be retained in the theaters for specific purposes and periods, after which they revert to their regular use. The latter type of retention, on the whole, has been well controlled, and except for a few isolated cases, has caused no undue concern.

A third type of retention is hardly a retention at all but rather a delay. In other words, a ship may remain in the theater for a comparatively long time while waiting berth or because of necessary repairs or for any one of a number of other reasons. During 1942 and 1943, when facilities at many of the overseas bases were wholly inadequate, there was considerable delay of this character. In this connection certain well-known trouble spots developed. At Noumea, New Caledonia, there was considerable delay, beginning late in 1942 and extending into 1943. On the other side of the world, in the Persian Gulf area it was not uncommon for vessels to wait for weeks before discharge was completed. Similar situations existed elsewhere at one time or another. By and large these delays tended to disappear as two factors served to relieve the congestion. In the first place, port facilities were improved as rapidly as possible and in certain instances,

as in the Persian Gulf area, Transportation Corps port companies and port battalions were put to work to expedite discharge. In the second place, and particularly in the Pacific, a given base such as Noumea eventually became a rear rather than a forward base, and with pressure removed, port congestion soon eased.

At present, retention of a certain number of vessels each month in the theaters is authorized by the Joint Military Transportation Committee. The vehicle ships used for the invasion of Normandy (MTVs) and the flatted cargo ships employed in the invasion of Southern France are examples of vessels which were loaded in the United States with the definite understanding that they would be retained for operational use in the theaters. This same process of loading for operational use has been followed in the Pacific, resulting in certain special terms applied to such vessels. Among the latter may be mentioned the so-called POEM or resupply ships (POEM standing for port of embarkation maintenance), which were sent out from various United States ports to the Southwest Pacific in December 1944.

Delays of Army Cargo Ships in Overseas Areas

In 1943 the Office of the Chief of Transportation began compiling statistics on a weekly basis with respect to Army cargo vessels which had been held in foreign ports for ten days or longer. Initiated as of 2 January 1943, this weekly report at first covered only Army ships. At present it is used in this manner. When it develops that a given vessel has been in the theater for twenty days or longer, or

has been held in the overseas port ten days or more, attention is directed to the delay, and if necessary a radiogram is dispatched to ascertain the cause thereof. This ten-day report undoubtedly serves to bring to light undue delays affecting Army controlled ships in overseas areas. The report devised for this purpose has been gradually expanded in scope. Beginning in March 1945 it has been prepared on a theater basis, so as to show all vessels in a given Army area such as the Southwest Pacific, and to include all U. S. controlled vessels, even if employed by the Navy or the War Shipping Administration, when in that area.

ACTREP

All of the foregoing reporting systems in a sense served to control the utilization of the Army's cargo fleet, by pointing out delays, by stimulating prompt and efficient discharge, and by indicating at once the existence of real or potential trouble spots. In order to provide basic information permitting a closer supervision and control of the employment of United States controlled shipping, radiograms directing ACTREP cables were dispatched on 16 December 1944 by the Army and the Navy to their respective areas, requiring weekly reports on the activity of each United States controlled troop and cargo vessel of 1,000 gross tons or more (except for tankers) under the jurisdiction of the theater or area commander. These dispatches implemented a directive of the Joint Chiefs of Staff. The advantage anticipated was that the same system which had been used

to follow employment and utilization of the Army's vessels overseas might now be extended to cover all Navy and War Shipping Administration ships as well as Army and foreign flag ships assigned to local theater operations, and that duplicating reports to the three agencies could be eliminated.

ACTREP resulted from a plan to produce an overall weekly activity report of all vessels (Army, Navy, WSA) in overseas theaters. It was based upon a study made by the Joint Military Transportation Committee, which disclosed a lack of complete information on the activities of vessels retained in the theater, coupled with incomplete, duplicating, and overlapping reports by the War Department, Navy and War Shipping Administration, on their vessels. Accordingly, it was believed that a weekly report should be obtained on the activity of all vessels in overseas theaters.

The first ACTREP was to be submitted from the European Theater of Operations on 2 January 1945, from the Southwest Pacific Area on 3 January, from the Mediterranean Theater of Operations on 4 January, from the Pacific Ocean Areas on 5 January and from all others on 6 January, and weekly thereafter. In the preliminary announcement of ACTREP, detailed information was given as to the data required, together with samples of cables conveying certain information regarding the fictitious vessels JOHN JONES and HENRY BUSSE.

Under date of 27 January 1945 the first revision to the Ship Activity Report was distributed which set up a new code for certain information to be reported. Thus SUDAM, meaning sunk or damaged,

replaced the old code SUGAR KING. ESTAR, meaning estimated arrival date, replaced the old code EASY DOG ABLE.

The primary purpose of this new procedure was to improve the utilization of ships. A secondary purpose was to reduce radio traffic on the subject of ship locations and activity. The net result, for the Army, of substituting ACTREP for previously directed reports on Army employed ships, has been "a reduction in the timeliness of information" on such vessels but "much more complete coverage on the activity of other United States controlled merchant ships than previously was available."[22]

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22 Cf. Annual Report, Water Division, OCT, Fiscal Year 1945, pp. 32-34.

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