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The Cover: A section of the Normandy shore, showing lying offshore a small part of the enormous number of merchant vessels supplying the invasion forces.

Activities of the Council

The Merchant Marine Council at a special executive session attended by representatives of the Maritime Commission and War Shipping Administration considered the problem of remote control installation for main engine and pumps on Liberty ships under Section 152.3, Emergency Regulations. Many existing Liberty ships presently have this remote control throttle installed on the upper deck and the control wheel for the valve is arranged for left hand, counter-clockwise, closing. The presently effective Maritime Commission plans approved by the Coast Guard, MCE Plan 1525–S4810–18 Alt. 1, provides for the remote controls for the main engines and main circulating pump to be carried to the boat deck and the control wheel to be arranged for clockwise closing. This change was made upon the basis of casualty reports.

It was determined by the Council that existing ships equipped with a remote control in accordance with the old installation plan will not be required to install a remote control gear in accordance with the new installation plan unless it is so desired by the operators. However, where the control wheels are arranged for counter-clockwise closing these must be changed to clockwise closing on a "no delay" basis. The presently effective installation plan is to be followed on all ships not yet certificated for the first time.

The Coast Guard has recommended for some time that drinking water and provisions for lifeboats and life rafts be contained in hermetically sealed cans. The rafts and boats on many ships are so equipped. These multiple breakers have proven satisfactory in service. The Council approved amendments to the Emergency Regulations, Subchapter O, effective November 1, 1944, making this a requirement on all vessels engaged in the ocean and coastwise service. These cans shall be of a type approved by the Commandant. Coast Guard specifications for the hermetically sealed cans were also approved. Copies of these specifications may be obtained from the Commandant, U. S. Coast Guard, Washington, D. C.

The cans are of a standard 1¾-quart size, so designed that easy stowage is possible. The cans are opened by a can opener. In this connection the attention of the Council was invited to the fact that some ships have voluntarily equipped their lifeboats and rafts with two metal quart jars fitted with screw-on lids. This permits better rationing of drinking water in that the unused water in an opened water can is given better protection by transfer to one of these jars.

Action was taken to avoid any possible confusion between Coast Guard naval engineering specifications, procurement specifications, and Coast Guard specifications for equipment and materials for merchant vessels. The Council determined that Coast Guard specifications for equipment and materials for merchant vessels should be maintained separately from all other Coast Guard specifications

and that this distinction should be made clear by designating the specifications as being solely for merchant vessels.

The Council approved a revision of the Emergency Marine Engineering and Materials Regulations, Subchapter O, Part 151, to bring these regulations into accordance with the latest revisions of the A. S. T. M. standards. The principal purpose of this action is to facilitate the purchasing of engineering materials. Editorial amendments were made to enable the regulations to be used more easily. The sections are renumbered so that the section numbers in Part 151 of Subchapter O are exactly 100 larger than the section numbers in Part 51, Subchapter F, "Marine Engineering Regulations and Material Specifications." For example, Section 151.13, Subchapter O, sets forth the regulations during the emergency as they apply to Sections 51.13–1 to 51.13–14, inclusive, of Subchapter F.

The Merchant Marine Council together with panel members conducted a public hearing on the improved type life rafts, July 18, 1944, at Coast Guard Headquarters. Seamen vessel owners and operators and manufacturers attended. At the conclusion of the public hearing the panel and council members considered the matter in the light of the facts and opinions expressed at the hearing. It was decided that final conclusions and recommendations would not be made until completion of the tests by the Coast Guard of the various types of improved rafts. At that time a full report will be made.

A directive has been issued authorizing Officers-in-Charge, Marine Inspection, of inland ports to receive for consideration applications for original or raise of grade of engineer's license for ocean steam vessels. Coast Guard Headquarters has approved specified inland ports to conduct the required examinations and issue licenses to engineers of ocean steam vessels. The directive, dated June 12, 1944, is published in full in the Appendix.

A waiver of Section 153.3 (c) Subchapter O, has been granted to ocean and coastwise EC–2 (Liberty) ships receiving their first certificate of inspection after January 1, 1943, to the extent that these vessels are permitted to operate with four lifeboats, each having a cubic-carrying capacity calculated on the basis of 10 cubic feet per person. This waiver of the 15 cubic feet per person rule is granted upon the condition that at least two of the life rafts required by Section 153.2 (b), Subchapter O, shall be of the improved type; one improved type raft shall be stowed on one side of the vessel forward, and the other improved type raft stowed aft on the opposite side of the vessel.

Hearing on Life Rafts

On July 18, at Coast Guard Headquarters, Washington, there was held a Public Hearing to discuss life rafts for merchant vessels. This hearing for the Merchant Marine Council was attended by representatives of makers of various types of life rafts, by ship operators, representatives of seamen, and personnel from other interested agencies. The background and purpose of this hearing are best set forth in the agenda given to those attending.

1. Life rafts long have been known upon United States vessels as a supplement to the basic means of emergency escape—the lifeboat. The soundness of the principle of the lifeboat as the primary means of saving life at sea has never been disputed. The present war has brought sharply into focus the fact that there are some instances when the lifeboat, as the basic lifesaving apparatus, must be supplemented by a device which can be dropped instantly from a vessel into the water without the delay incident to lowering and manning, and which may be used as a means of survival after abandoning ship.

2. Peacetime operations did not emphasize or require the use of life rafts to any appreciable degree. The Seamen's Act of 1915 and the International Convention of 1929 permitted, and set forth requirements for, the flush deck pontoon type raft, "the chicken crate."

3. When the United States was attacked on December 7, 1941, very few vessels were equipped with any type of life raft. The only approved type available was the type raft originally designed and intended for an entirely different use than that of being dropped from the ship in an emergency. Consequently, this old type raft was found unsatisfactory for wartime emergency use and the Coast Guard encouraged the development of an improved life raft embodying the recommendations of survivors.

4. In March 1943, the first "improved types" of life rafts were submitted for approval: the Taylor designed plywood sheathed balsa raft; the Globe American Corporation all metal raft and the S. H. Pomeroy Corporation raft. All three types were approved. The basic differences in the safety features of the wooden raft and metal raft were considered at that time. It was directed that Coast Guard specifications for an improved type life raft be prepared. In April these specifications were issued in Navigation and Vessel Inspection Circular 33. Minor refinements were made in this specification in September 1943. This specification was purposely made broad in scope with regard to general design and materials.

5. As a result of the broad scope of the specification, numerous designs employing all wood and all metal construction as well as a combination of the two have been submitted for consideration, each incorporating features and materials most adaptable to a particular manufacturer's facilities, and each class claims to have certain advantages which makes it the most suitable for the intended use. Attached hereto is a list of the approved improved rafts of the different types.

6. The improved type raft has been in service neither for a sufficient length of time nor in large enough numbers to enable an accurate determination of the worth of the various types of improved rafts to be made upon the basis of experience. The normal hazards of the sea in combination with the wartime damages peculiar to each theater of the war, makes the presently known operating conditions practically infinite in number.

7. *Possible hazards to which life rafts might be subjected.*

A. Enemy action.
   1. Fire on board vessel or burning oil on surface of the sea.
   2. Damage due to *shock* resulting from torpedo, bomb, or mine explosion, i. e., distortion, rupture, etc. (might include DC's).
   3. Damage due to flying missiles (both while in skids, while in the water).
      (a) Shell fire (larger than 20 mm. as might be expected from "raider action") including rocket bombs.
      (b) Machine gun fire.
         (1) .30-caliber. Probably would merely hole the raft.
         (2) .50-caliber. A. P., incendiary, tracer, service.
         (3) 20-mm. A. P., H. E., tracer, H. E. I., etc.
      (c) Bomb fragments.
         (1) High capacity.
         (2) Incendiary.
         (NOTE.—Probably bombs are in use which combine these two features.)
      (d) Various parts of and equipment on board the vessel which would be violently or easily thrown against the raft while it is in its skids as a result of enemy action.

B. Damage due to marine casualties.
   1. Perils of the sea.
      (a) Heavy weather damage.
         (1) Rather remote if rafts are in skids and are not washed overboard.
   2. Fire.
      (a) If not under enemy attack this hazard is probably not as serious here as in A1.
   3. Damage while in port.
      (a) During unloading or loading.
      (b) Removal and replacement, if necessary for (a).

C. The forces of the elements—weathering.

8. *Desirable features on board and in water.*

A. Buoyancy.
B. Stability.
C. Ability to retain A and B in 7 above after being dropped into the water.
D. Physical and mental comfort of occupants.
E. Maximum ability to resist "possible hazards" listed in 7 above.
F. Ease of repair of damage in event of damage before necessity for use.

9. This hearing is directed at the consideration of the above factors in relation to the different types of improved rafts from two viewpoints:

A. *Experience in service.*—In the experience of the seamen who have used rafts in the past and who may use them in the future, which type of raft best assures survival under all conditions? What additional characteristics in design, construction, or materials are considered necessary to increase the chance for survival?

B. *Construction and production.*—In the experience of the men who design and manufacture rafts, which design, construction, materials, and method of production affords a type of improved raft best overcoming all the principal known hazards? What changes in design, materials, and construction of existing improved rafts will result in a raft type further increasing the chances of survival of merchant seamen? Which of the characteristics considered desirable for improving rafts can, as a practical matter of production, be incorporated into the design?

To date life rafts of 16 different makers have been approved. The names of these makers, classified according to the general type of their product follow:

I. Rafts of all metal structure consisting of a continuous semicylindrical air case subdivided into water and airtight compartments.
   1. L. A. Young Spring & Wire Corporation, Oakland, Calif.
   2. Weber Showcase & Fixture Co., Los Angeles, Calif.
   3. Redwood City Boatworks, Redwood City, Calif.
   4. Jones-Gillis Manufacturing Co., McComb, Miss.

5. Globe American Corporation, Kokomo, Ind.
6. Buckler-Merwin Co., Portland, Oreg.
7. Kearns Bros., Redwood City, Calif.

II. Rafts of *all wood* structure enclosing solid or homogenous buoyant materials consisting of balsa wood, cork or other buoyant materials.

1. Michael Hallward, Inc., Swampscott, Mass.
2. Peterson Manufacturing Co., Portland, Oreg.
3. William J. Jaeger Furniture Co., Los Angeles, Calif.
4. Gunderson Bros. Engineering Corporation, Portland, Oreg.
5. Roof Structures, Inc., New York, N. Y.

III. Rafts of wood structure enclosing parallel longitudinal hollow plywood or metal air cases.

1. Williams and Wells Co., New York, N. Y.
2. Bell Lumber Co., Bell, Calif.
3. Colvin-Slocum Boats, Inc., Amesbury, Mass.
4. Blaircraft, Portland, Oreg.

Because of the lack of specific experience with any of the new type rafts the Commandant has directed that a sample of each of these rafts be given exhaustive tests to determine its ability to stand up effectively under all of the various hazards which may be encountered under wartime conditions. These tests will probably be taken in the neighborhood of Baltimore as soon as they can be arranged. All interested persons will be notified well in advance.

Shields Awarded to New York Port Coordinator's Security Group

VICE ADMIRAL Russell R. Waesche, at ceremonies held on July 6, 1944, in the Maritime Exchange Building, 80 Broad Street, New York, N. Y., presented the United States Coast Guard SECURITY SHIELD OF HONOR to the following civilian agencies which are active participating members of the New York Port Coordinator's Security Group:

OFFICE OF THE COLLECTOR OF CUSTOMS, PORT OF NEW YORK
Mr. Harry M. Durning, Collector

WAR SHIPPING ADMINISTRATION, PORT OF NEW YORK
Mr. Walter W. Schwenk, Atlantic Coast Director

FIRE DEPARTMENT, CITY OF NEW YORK
Mr. Patrick Walsh, Commissioner and Chief of Department

DEPARTMENT OF MARINE AND AVIATION, CITY OF NEW YORK
Mr. John McKenzie, Commissioner

POLICE DEPARTMENT, CITY OF NEW YORK
Mr. Lewis Valentine, Commissioner

MARITIME ASSOCIATION OF THE PORT OF NEW YORK
Mr. Edward J. Barber, President

NEW YORK FIRE INSURANCE EXCHANGE
N. Y. City Division, N. Y. Fire Insurance Rating Organization,
Mr. Sinclair T. Skirrow, President

The SECURITY SHIELD OF HONOR was recently adopted for award to organizations and individuals which have made important voluntary contributions in the development of the port security program of the Coast Guard.

The New York Port Coordinator's Security Group, headed by Commander Joseph J. Flynn, USCGR, consists of all major groups connected with the security of pier and harbor facilities in the Port of New York. The group meets weekly to consider matters for preventing injury and loss to waterfront facilities and vessels in New York, the world's largest port, and the awards made were in recognition of extraordinary and voluntary contributions of inspection service, manpower, and equipment which have been made by members of the Group. The Group is but one of the units of the Coast Guard's port security organization which is headed by Rear Admiral Stanley V. Parker, USCG, Captain of the Port of New York and District Coast Guard Officer, under whose guidance the port has achieved its greatest safety record in history, despite the greatly increased use of port facilities in supplying battlefronts throughout the world.

Guests of honor at the presentation ceremonies included Vice Admiral Herbert F. Leary, USN, Commander, Eastern Sea Frontier; Rear Admiral William R. Munroe, USN, Commandant of the Third Naval District; Rear Admiral Monroe Kelly, USN, Commandant, New York Navy Yard; Honorable Fiorello H. LaGuardia, Mayor of the City of New York; Rear Admiral Joel W. Bunkley, USN (Ret.), Supervisor of New York Harbor; Rear Admiral Lorenzo C. Farwell, USCG (Ret.), Officer Procurement Officer, Third Naval District; Commodore Frederick G. Reinicke, USN (Ret.), Port Director of the Port of New York; Captain Raymond L. Jack, USCG (Ret.), Commanding Officer, Port Security Command; and Colonel E. B. Towns, USA, Separation Officer, Second Service Command, representing Major General Thomas A. Terry, USA, Commanding General, Second Service Command.

In making the awards, Vice Admiral Waesche stated, "Since the outbreak of the present conflict there has been no serious damage to or loss of waterfront facilities in the world's largest and most active port—the Port of New York. This remarkable record has been made possible through the untiring combined efforts of the organizations comprising the Port Coordinator's Security Group, which since October 1942, has been meeting regularly once a week for the purpose of considering matters for preventing injury and loss to waterfront facilities and vessels in the Port of New York. In the discharge of its responsibility for the protection of vessels, harbors, ports, and waterfront facilities, the Coast Guard has been most fortunate in being able to avail itself of the extraordinary and voluntary contributions which have been made by each of the organizations included in the Port Coordinator's Security Group in the solution of waterfront facility security problems. As a result of the many constructive conferences and meetings which have been held between officers of the Coast Guard and the organizations representing the Port Coordinator's Security Group, it has been possible to move thousands of men and untold quantities of war materials smoothly and rapidly through this vital port.

"As Commandant of the Coast Guard, I am grateful for the opportunity afforded me to pay tribute to the organizations which through their unselfish efforts and their valued experience and knowledge have assisted in assuring the security of the Port of New York. As all of you know, the invasion is progressing satisfactorily—I might say far better than had been anticipated. Now, more than ever before, it is necessary to maintain the steady flow of supplies from this great port to our fighting forces overseas. I am confident that our troops will continue to advance steadily as long as they are furnished with the necessary supplies and munitions. It is, therefore, incumbent upon all of us who are interested in the security of the Port of New York to see that nothing happens here to jeopardize the prosecution of the war over there."

The citation accompanying the awards reads as follows: "For most important contributions to the Port Security program of the United States Coast Guard. Since the inception of this program, these agencies have made extraordinary and voluntary contributions of inspection service, manpower, and equipment in furtherance of the Port Security program of the Coast Guard in the world's largest and most vital port. All are active participating members of the New York Port Coordinator's Security Group and have rendered material aid to the Coast Guard in preventing injury and loss to waterfront facilities and vessels in the Port of New York, thus assisting and facilitating the safe and uninterrupted flow of our country's manpower and war materials to the battlefronts of the world."

Seaman's Passports

ON JULY 12 the Department of State issued its Press Release No. 290 relative to seaman's passports. Although this has had wide circulation in the press, it is of such importance to seamen engaged in the foreign trade and operators of registered vessels that it is quoted herewith.

"In order that the interests of the United States and its merchant marine may be safeguarded by every possible means, the Secretary of State has decided that after 6 o'clock in the forenoon of August 15, 1944, no seaman who is a citizen or national of the United States may ship on a vessel in this country bound for a foreign port unless he bears a valid American passport or evidence, usually referred to as 'receipt,' that he has applied for a passport within the preceding 6 months and that after 6 o'clock in the forenoon of November 15, 1944, no such seaman may ship on a vessel in this country bound for a foreign port unless he bears a valid passport. This procedure will place in full effect on November 15, 1944, the provision of the Passport Control Regulations issued by the Secretary of State on November 25, 1941, under which seamen are required to bear valid passports in order to depart from the United States. Consequently all seamen who have not heretofore applied for passports should do so as soon as possible.

"The foregoing is in harmony with the views of the appropriate military authorities and the War Shipping Administration."

Wartime Communications Proficiency

THE Navy Department has decided that deck officers on merchant vessels sailing in convoys, or voyaging into waters where enemy activities may be expected, shall have a satisfactory proficiency in wartime merchant ship communications. To this end the Navy has established special training courses in the subject at the U. S. Maritime Service Officers' Training Schools at New London and Alameda, at the Cadet Basic Schools at Pass Christian and San Mateo, and at the Merchant Marine Academy at Kings Point, N. Y. In addition, instructions will be given at the following locations:

a. Third Naval District, Office of the Port Director, 17 Battery Place, New York.
b. Fifth Naval District, (1) Pier 2, Army Base, Norfolk, (2) Naval Receiving Station, Newport News.
c. Eighth Naval District, 1 Canal Street, New Orleans.
d. Twelfth Naval District, 40 First Street, San Francisco.
e. Thirteenth Naval District, Federal Building, Seattle.

Instruction will be given merchant marine officers at any of these listed places. It is understood that the course of instruction will normally take about 5 days. Upon completing the course and passing a qualifying examination the officer will be given a U. S. Navy Certificate of Wartime Merchant Ship Communications. On and after January 1, 1945, the master and all licensed deck officers required by the certificate of inspection of any United States vessel sailing under registry must possess satisfactory evidence of proficiency in wartime merchant ship communications, and possession of a Navy certificate will be considered as satisfactory evidence of such proficiency.

It is emphasized that a certificate of proficiency is not a requirement for a renewal or original issue of license. It is a Navy requirement imposed upon deck officers sailing on foreign-going ships which will be enforced by the Coast Guard at the request of the Navy. No officers sailing on coastwise or inland waters will be affected, nor will holders of ocean licenses who are not sailing on registered vessels of the United States.

Where an officer has qualified as possessing a satisfactory proficiency in wartime merchant ship communications, endorsement to that effect will be made upon his license and after January 1 an officer signing on as one of the prescribed deck complement of a registered vessel will be required to exhibit to the U. S. Shipping Commissioner either his license so endorsed or a Navy Certificate of Proficiency.

Necessary changes in regulations to provide for this will be published in the FEDERAL REGISTER in the near future. The basic curriculum and specimen examinations will also be available at all Navy instruction points and at Coast Guard offices. The subject is adverted to here in order to give the greatest possible advance notice to interested deck officers, so that they may take steps to meet the requirements before the last minute.

Captain Shepheard Abroad

UPON the request of the Supreme Head, Allied Expeditionary Force, Capt. Halert C. Shepheard, USCGR, Chief, Merchant Marine Inspection Division, has been assigned highly important merchant marine duties in the European area. The duration of this overseas assignment is uncertain. During Captain Shepheard's absence his assistant, Commander R. E. Coombs, USCGR, is Acting Chief of the division.

Coast Guard Approval

THERE are many items of marine equipment which are required to be approved by the Coast Guard before they can be used on board merchant vessels. Such approvals are published in the "Proceedings of the Merchant Marine Council" and manufacturers whose products have been so recognized are entitled to advise customers that such items are approved by the Coast Guard. Some articles are required to be stencilled to that effect.

A possible source of confusion arises when makers or suppliers of equipment used on Coast Guard vessels advertise that such equipment is "Coast Guard approved." The purchase of articles by the Coast Guard does not connote in any way that those articles are approved for use on merchant vessels. In fact, as a purchaser, the Coast Guard does not "approve" an article at all.

The difference between the status of the Coast Guard as a purchasing agency and that of being the body passing on merchant marine equipment is here pointed out in the hope that it will clear up any misunderstanding existing among makers of equipment and will prevent any error on the part of purchasers of such equipment.

The Coast Guard's 154th Anniversary

ON AUGUST 4, the United States Coast Guard began its one hundred and fifty-fourth year of service to the Nation and to American shipping. Originally founded to protect legitimate shipping from the murderous competition of smugglers, it has advanced with technological progress in marine engineering and with the commercial progress of maritime trade to act also as a preventive agency for increasing the safety of lives and property at sea. Today, under normal circumstances, it is the Federal agency charged with the maintenance of all physical aids to the building and retaining of a healthy and prosperous Merchant Marine. Its main concern is preventing disasters at sea, and if disasters happen, despite all precautions, to lessen the material loss in lives and property by rendering prompt assistance. Under wartime conditions, however, the Coast Guard has assumed many additional duties of a more transitory nature.

The many and varied duties and services performed by the Coast Guard in time of war result from two circumstances. When the country is at war, the Coast Guard serves as a part of the Navy. At the same time it is required to carry on most of its normal functions, some of which are broadened and complicated by the outbreak of hostilities.

For example, the Coast Guard's peacetime responsibility for the enforcement of navigation laws and those having to do with the anchorage and movement of vessels in harbors gain added significance in time of war as part of the port security program. So, too, with vessel documentation and the certifying of ship's manifests.

In one port alone, during a single month of the present war, approximately 1,000 vessels found a berth. The speedy examination and certification of ship's papers under such circumstances is an important wartime obligation that contributes directly to the effectiveness of fight fronts, thousands of miles distant.

The diversity of the Coast Guard's functions results from the fact that the present Service represents the combined functions of four distinct Federal agencies—the original Revenue Cutter Service, the Life-Saving Service, the Lighthouse Service, and the Bureau of Marine Inspection and Navigation.

The Revenue Cutter Service originated in Alexander Hamilton's Tariff Act of 1790, which authorized the construction of armed sailing vessels to insure the collection of the customs. When the United States Navy was established in 1799, it was specified that the Revenue Cutter Service should always be attached to the Navy during time of war.

This change-over from Treasury control to Navy jurisdiction is automatic on the opening of hostilities, but it may be hastened by presidential action. As war clouds thickened over the Western Hemisphere in 1941, the President on November 1, of that year, placed the Coast Guard under the Navy for the duration of the "emergency." As a functioning unit the Service was placed under the jurisdiction of the Secretary of the Navy with the Commandant of the Coast Guard continuing to administer the Service, but directly under the Chief of Naval Operations.

Supervision of the anchorage and movements of vessels in United States ports, now vested in the Coast Guard, came about through a series of measures starting in 1915. On February 25, 1942, the President directed the Secretary of the Navy to take all necessary steps to safeguard the port and water-front facilities in the United States, its Territories and possessions. Responsibility for port security was then delegated to the Captain of the Port organization by the Commandant of the Coast Guard.

Supplementing port security is the Beach Patrol, established shortly after the outbreak of the war to patrol and guard the country's more than 40,000 miles of coast line and inland waterways. While the activities of this force in some respects resemble the duties performed by the peacetime life-saving beach patrols, its purpose is quite different, as are the members' training and operational methods. It is primarily a security force, designed to protect the country's coasts and inland waterways against saboteurs, especially those who might be landed from enemy submarines and also to detect the presence of subs in coastal waters or any other signs of enemy or "fifth column" activities along our shores. The Beach Patrol, therefore, is distinctly an innovation of this war, without previous service counterpart.

Following the International Conference on the Safety of Life at Sea held in London in 1913, the President delegated to the Coast Guard the maintenance of an International Ice Observation and Ice Patrol service.

The Alaska patrol is no longer in operation, but the familiarity of Coast Guardsmen with this region of treacherous storms and difficult navigation was of immense benefit to the amphibious forces battling the Japanese invaders of the Aleutians. Coast Guard vessels have played an important part in later offensive operations conducted from Alaskan bases.

The Greenland patrol, on the other hand, proved its worth in time of war when the first convoys began passing through the North Atlantic on their way to Britain. The experienced personnel drawn from the ice patrol has played an increasingly important role in escort duty, submarine-detection work, and in manning many of the military vessels in convoys. In this area the Service has seen action and sustained losses in accordance with its long tradition of valor and endurance.

Another peacetime function of the Coast Guard, servicing of aids to navigation, has been of great aid in the prosecution of the war, especially in areas such as the Southwest Pacific where little known channels and newly won naval bases require navigational markings and identification.

The transfer of most functions of the former Bureau of Marine Inspection and Navigation to the Coast Guard opened a vista of wartime responsibilities and opportunities from two directions: one having to do with the inspection of ships and their cargoes and of problems connected with seamen and the other concerned with the development of better safety and rescue equipment and devices for use aboard vessels and lifeboats.

Coast Guard aviation, which had performed a variety of duties before the war in conjunction with fast rescue boats, is now the chief medium of air-sea rescue work, saving hundreds of survivors of air crashes and of wrecked or torpedoed ships. Coast Guard planes and air stations have also engaged, to a large extent, in patrol work of a military significance.

Among special wartime functions of the Service are those it performs as part of the Nation's naval forces, such as manning troop transports and invasion craft. These operations, together with the escort and patrol activities of armed Coast Guard vessels, belong to the combat records of the Service and have accounted for the greater part of the casualties it has sustained.

In looking toward the future and a return to its primary functions at the war's end, the Coast Guard is becoming increasingly conscious of the opportunities that lie ahead for fostering a strong Merchant Marine through increasing operating efficiency by simpler and sounder safety methods. The trend is more and more toward preventing the loss of ships, the loss of men, the loss of cargoes, and the loss of time through conceivable disasters. For the only standard of the Coast Guard's efficiency is the efficiency of its sister service, which it was created to serve, the Merchant Marine.

Makeshift Still Provides Drinking Water

INITIATIVE, ingenuity, and coolness in dire circumstances are admirable traits and any person displaying these traits is worthy of praise and encouragement. A splendid example of such an individual came to light in a recent case reported to Headquarters and the story is certainly worth repeating at this time.

As an American freighter was making its way through the waters of a distant ocean it was torpedoed by an enemy submarine. The crew abandoned ship and while floating around in lifeboats and rafts were subjected to machine gun fire from a U-boat, which later proved to be Japanese. Many of the lifeboats were broken up and their water tanks punctured by the time the sub ceased firing and departed. Several members of the crew righted a capsized lifeboat and began picking up other survivors. At last 39 men were assembled on 1 lifeboat and 2 rafts and the long hopeful wait for a rescue ship began. The food was rationed at an amount sufficient for all the men for 15 days. The water supply, however, was low, since so many of the water tanks had been punctured by machine gun bullets.

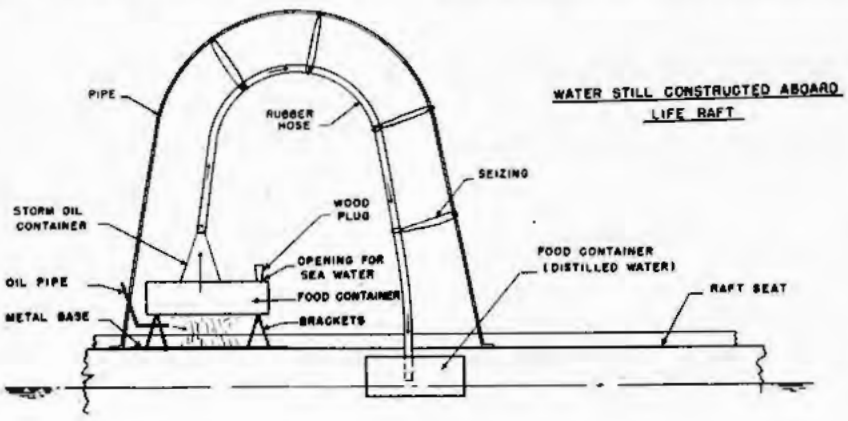
A few days after the sinking, realizing their increasingly serious predicament, the junior engineer proceeded with the aid of some of the other men to build a makeshift still. With various nondescript pieces of equipment taken from the lifeboat and rafts, a distilling plant was constructed which produced approximately 60 gallons of potable water in a period of 48 hours. Except for this makeshift still it is doubtful if any members of this crew would have survived the 16 days afloat under the blistering sun. As it turned out, all were saved, with the exception of one man who died from injuries sustained when the vessel was torpedoed.

At first glance the construction of such a still for the making of potable water would appear complicated, requiring intricate parts which must have been salvaged from the sinking vessel. That is not the case, however. This junior engineer used only such equipment as is usually found in lifeboats.

It might be well at this time to go through the construction details of this still, showing where the various parts came from or could have come from and how they were used. The first essential was a base, for which one of the rafts was used. Then it was necessary to have an evaporator and a condenser. Two metal food containers served the purpose here. For a steam line between the two, a rubber hose was used, this probably being taken from the bilge pump. These were the essential parts.

In erecting the equipment the evaporator was set up on some metal brackets so that a fire could be built underneath. The food container used was undoubtedly the type having a screw lid on the side. This lid was removed and the opening used as a steam outlet. The hole being too large for the rubber hose, a conical storm oil can with the base removed with a can opener, was used to fit over the hole, the hose being fitted to the small opening of the cone. To support the hose and prevent snarling, a piece of pipe or strip of metal was used, to which the hose was tied with string. The condenser was secured at the center of the raft so that it was partly submerged in sea water, the latter being used as the condensing medium. For fuel, the second raft was broken up into kindling wood to feed the fire beneath the evaporator. Naturally, the wood was wet, but by the use of the storm oil a fire was maintained.

Present-day lifeboats and rafts are so well equipped, that with the use of initiative and ingenuity it is possible to do wonders with the various items aboard, as was illustrated in this case. Many construction problems similar to this one are rather simple after a little analysis. However, credit is due anyone who is able to sit down calmly in a critical situation and carefully analyze the problems which present themselves and then intelligently proceed to put the materials at hand to use. The results are well worth the effort since the task occupies the mind, makes time pass more quickly, and, if results are secured, it raises the morale of all concerned. It is men with such traits as these who typify the Americans that are fighting this war and winning it for the Allies.



WATER STILL CONSTRUCTED ABOARD LIFE RAFT

Salt Intake

IN hot weather or when working in places of extreme heat, dilatation of the small blood vessels in the skin results, so that a greater volume of blood is exposed to the outside air. Loss of heat by conduction and radiation then takes place. The volume of blood in abdominal organs and brain is diminished and the blood is accommodated in the skin vessels.

Sweating takes place and heat loss occurs as a result of evaporation. A distinction may be drawn between "invisible" perspiration which is taking place constantly, and "sweat" which is secreted in beads. It must be remembered that loss of heat by radiation and conduction can only occur when the external temperature is lower than that of the body; if it rises higher the only available method of heat loss is by means of evaporation. In a man without sweat glands the internal temperature rose to 102.2° when doing work for a short time. To maintain him on duty it was necessary that he soak his shirt repeatedly in cold water.

The amount of salt which may be lost daily by profuse sweating is not widely appreciated. Many persons sense that strenuous exercise in hot weather is accompanied by excessive sweating and salt loss. On the other hand, few persons are aware that a sedentary existence in a hot environment or strenuous exercise in cold weather may be associated with a dissipation of significant quantities of sodium chloride (salt). If strenuous exercise in a cold climate is undertaken by persons suitably clothed in woolens for protection, sweating is profuse and loss of salt may be significant. The matter of sodium chloride deficiency is of concern, therefore, to persons living in cold as well as warm climates and to members of the armed forces undergoing strenuous maneuvers in cold regions as well as in the tropics.

The volume of sweat lost during eight hours of strenuous work in a hot environment may be as great at 10 to 15 quarts, each quart containing as much as 3 to 4 grams of salt. No ill

effects may be noted in this excessive loss if it is periodically replaced; if not, symptoms occur.

The gradual development of salt deficiency leads to weakness, excessive fatigue, loss of appetite, and nausea. Physical performance is impaired and mental acuity diminished. A thirst-like sensation may appear which is not relieved by drinking water. There is no change in rate of the pulse, blood pressure or body temperature.

The development of many of these symptoms in hot climates had been attributed to some mysterious action of the tropics and has been called tropical languor.

If salt loss is accompanied by fluid loss, the usual consequence of strenuous activity, muscle cramps and prostration may develop. A more appropriate title, therefore, might be muscle cramps from salt loss rather than heat cramps. Susceptibility to cramps varies among persons as well as with the duration of exposure to conditions which induce cramps. Susceptibility may reach a maximum during the first days of excessive sweating before acclimation begins to operate. Acclimation is associated with a decrease in the amount of salt in the sweat, although the volume of sweat excreted may be unchanged. Particular attention should be given to salt intake during the first days of excessive sweating if cramps are to be avoided.

The prevention and treatment of salt deficiency is theoretically and practically a relatively simple matter. The salt intake should be increased if exposure to high temperatures is anticipated or if physical activity in the cold is contemplated. A daily intake of 15 grams of sodium chloride will protect against most symptoms of salt deficiency. Some persons will consume this amount in a high salt diet. Others need extra salt as salt tablets or saline drink. If a central supply of drinking water is available salt dispensing containers may be set up. Drinking water containing the desired amount of salt can be made as follows:

(1) One 10-grain salt tablet swallowed with every pint of water consumed.
(2) One 5-grain tablet with each glass of water.

A liberal intake of fluid is imperative for persons subjected to excessive sweating in hot weather. It is needed to provide available quantities for dissipation of heat as well as to maintain the internal environment of the body. The temperature at which water should be consumed may be governed by individual tastes. There is little evidence that cool water by itself is harmful. It has the advantage of a refreshing action in comparison with tepid water.

Activities of Merchant Marine Hearing Units

COAST GUARD Merchant Marine Units, during June, handled cases involving 301 licensed officers and 2,788 unlicensed men. In the case of officers, 5 were revoked, 38 were suspended, 51 were suspended on probation, 2 were suspended plus suspended on probation, 25 were voluntarily surrendered, 119 admonitions were given, and 61 cases were dismissed. Of the unlicensed personnel, 42 were revoked, 288 were suspended. 632 were suspended on probation, 36 were suspended plus suspended on probation, 96 were voluntarily surrendered, 1,059 admonitions were given, and 635 were dismissed.

Woman Licensed Chief Engineer

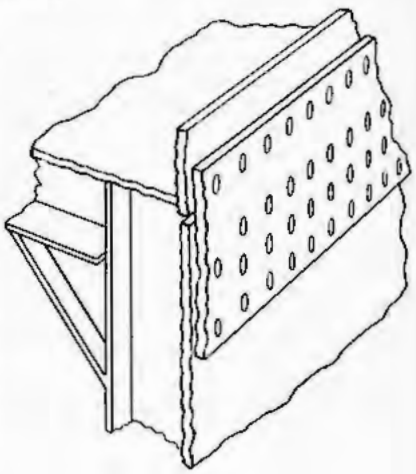
QUITE apart from the mythical Tugboat Annie, instances of women being licensed as deck officers or pilots for inland vessels are not unusual. The same, however, is not true in the engineering department. It was with interest, therefore, that Coast Guard Headquarters noted the licensing on May 1, 1944, of Miss Marjorie Warren, of New York, as chief engineer of steam yachts of not more that 750 horsepower on lakes, bays, sounds, and rivers. Miss Warren has since 1932 been general assistant engineer on laboratory yachts, and has been engaged in building and installing new engines for the past 2 years.

Miss Warren, however, is not the first woman to be licensed as an engineer. On November 18, 1919, Mrs. Carlie A. Westcott was licensed as chief engineer of inland steam vessels not exceeding 75 gross tons and as first assistant engineer of such vessels not exceeding 300 gross tons. Mrs. Westcott was born in Copenhagen, Denmark, in 1891, and was naturalized in this country. She married a pilot operating a tugboat in the Seattle area. Although she is described as a slight woman, she nevertheless commenced her seafaring career by serving as a fireman on her husband's tug. As a result of this experience she qualified for her license. The records of the Inspection Service show that her examination papers were unusually well answered. She renewed her license three times, her latest being February 18, 1936.

Correction

MR. DAVID ARNOTT, principal surveyor of the American Bureau of Shipping, has pointed out that in the article "The Structural Reinforcement of Liberty Ships," appearing in the June issue of *The Proceedings*, there was an error in the sketch marked "figure 7," in that the torch cut in the sheer strake was shown with one row of rivets above it and three below instead of with two rows of rivets above and two below.

The sheer strake strap shown is arranged for vessels whose bulwark is riveted to the sheer strake and the strap allows clearance for the row of rivets in the top edge of the sheer strake. With this strap the torch cut is intercostal and runs between holes drilled through the shell and on each side of the flange of each frame. The accompanying sketch shows this correctly.



On most Liberty ships, the bulwark is welded to the top of the sheer strake and the edge of the sheer strake strap comes up to within one-half inch of the top of the sheer strake. This permits two rows of rivets through the strap above the deck. In this case the torch cut is just beneath the deck and is continuous because the upper corner of the frame is snipped off and clears the flame cut. All of these items are correctly shown on Coast Guard Plans MI 14 and 15–S11–17–1, detail C.

LESSONS FROM CASUALTIES

Ears Are Not Direction-Finders

DIVINE Providence, in giving us two eyes, provided a stereoscopic vision which assists us in estimating depth and distance. Similarly, our two ears, on opposite sides of our head, afford in some measure the possibility of judging the direction from which sound emanates. But in each case the "base line" is so short that a high degree of accuracy in estimating either dstance by eye or direction by ear is not possible.

This is particularly true of sound. Not only is the aural base line short, with a possibility of variance in acuity between the two ears, but the conditions under which the sense of hearing is chiefly relied upon by the navigator—thick weather or low visibility—seriously and erratically affect the transmission of sound waves. A prudent ship's officer, under such conditions, should never rely upon his hearing to give him more than an approximate direction of a sound signal heard in a fog. Yet officers will gamble their ships upon the accuracy of their hearing. Two recent collisions are examples of this.

In one case the two vessels were approaching upon almost opposite courses. Vessel A was steering 247° true and vessel B 70° true. The weather was thick and both were sounding the prescribed fog signals. In subsequent testimony the master of A placed the other vessel, by her whistle, 5° upon his starboard bow. The master of B similarly testified that A's whistle was first heard one point on his port bow. Obviously both could not be correct and as a matter of fact the vessels were practically head on.

Acting wholly upon his estimate of the position of B, and in violation of the rule governing steam vessels meeting nearly head on, the master of A turned his vessel to port and blew two blasts on his whistle. In the meantime B had correctly hauled to starboard and blown one blast. A struck B on the port side and sank her.

There was some question as to whether, even after the port turn of A, the collision might not still have been avoided if both vessels had checked speed to bare steerageway and navigated with caution until they had passed each other, as the rules require. But A's turn to port was the direct cause of the loss of B, and this turn was made because a shipmaster was betting his ship on being able to place B within 5°!

A second case, occurring by coincidence on the same day, was almost a duplicate of the first. Here again the two vessels were on exactly opposite courses. Sound signals were heard by each for a matter of 8 or 10 minutes before actual collision. Speeds had been checked to slow by both vessels. But vessel C pulled off to port, while D turned to starboard. At the investigation the master of C said that he thought D was about dead ahead but that the mate on watch placed her "a little on the starboard bow" so he accepted the mate's judgment and ordered left rudder.

In the meantime both ships were blowing cross signals and danger signals to each other but apparently failed to stop, and if necessary reverse, until the situation became clearer. Instead, the master of C turned still farther to port, until he was practically at right angles to the course of D who had hauled 10 points to starboard. When collision was imminent, he gave his ship full right rudder in the effort to swing his stern away from the oncoming D, but it was futile. D cut half-way through C and though the master of D held his bow in the hole long enough to save all the crew of C, that vessel sank.

Again, violations of the precautionary rules, both as to speed and cross signals, were contributing causes, but the fact stands out that a master gambled his ship on his mate's eardrums and those eardrums were wrong. Even had they been right, in this case as in the first, the meeting was still so nearly end-on as to require a port to port passing. None of these considerations were weighed.

A similar collision occurred between the *Crete* and the *Cornell* in 1936 on Lake Superior. Both ships were approaching each other in fog and darkness at full speed. The *Cornell* placed the *Crete's* signal to starboard and turned to port. The *Crete* blew one blast and turned to starboard. Because of failure to reduce speed early enough, collision was inevitable.

The officers of both ships were found at fault and disciplined for violation of rule 15, but again there was evident the fatal over-confidence in the human ear. The Pilot Rules have no such confidence. International and Inland rules consider risk exists when a sound signal is heard anywhere forward of the beam, or an arc of 180°. Great Lakes and River rules, with less cross traffic, consider risk exists if a sound signal is apparently located within an arc of 90° ahead. These rules are not only mandatory, they are the result of years of experience of countless deck officers. They cannot be violated with impunity.

APPENDIX

Amendments to Regulations

TITLE 33—NAVIGATION AND NAVIGABLE WATERS

Chapter I—Coast Guard, Department of the Navy

PART 9—REGULATIONS RELATING TO THE REMOVAL AND EXCLUSION OF PERSONS FROM VESSELS AND WATERFRONT FACILITIES

SURRENDER OF DOCUMENTS BY PERSONS ORDERED EXCLUDED

Under the authority of Executive Order No. 9074 (7 F.R. 1587) and pursuant to the Act of July 9, 1943, c. 212, 57 Stat. 391 (50 Appendix U.S.C. Supp. III, 1311, 1312), and to make more effective the regulations relating to the removal and exclusion of persons from vessels and water-front facilities (8 F.R. 16867), the following regulations relating to the surrender of documents by persons ordered excluded under said regulations are hereby promulgated and approved:

Sec.

AUTHORITY: §§ 9.101 to 9.104 inclusive, issued under E.O. 9074, 7 F.R. 1587; 57 Stat. 391, 50 U.S.C. App. Supp. III, 1311, 1312.

§ 9.101 *Definition.* As used in this subpart the term "maritime documents" means: (a) Certificates of

identification, continuous discharge books, certificates of service, certificates of efficiency, certificates of registry, licenses as officers, and employment cards, issued by any agency of the United States to seamen and officers of merchant vessels; and (b) Coast Guard Captain of the Port Identification Cards.

§ 9.102 *Surrender of maritime documents; penalty.* Any person heretofore or hereafter ordered excluded from vessels and water-front facilities pursuant to the regulations relating to the removal and exclusion of persons from vessels and water-front facilities (8 F.R. 16867) shall, as soon as possible after demand therefor, deliver to the District Coast Guard Officer for the Naval District in which he is present, all maritime documents issued to him or in his possession. Willful violation of this section is a misdemeanor punishable by a fine of not to exceed $5,000 or imprisonment for not more than one year, or both, under the Act of July 9, 1943, c. 212, 57 Stat. 391 (50 Appendix U.S.C. Supp. III, 1311).

§ 9.103 *Disposition of maritime documents.* Upon delivery of maritime documents to the District Coast Guard Officer pursuant to § 9.102 appropriate receipt will be issued therefor. In the case of temporary exclusion, the District Coast Guard Officer will retain the maritime documents pending final decision in the case. If the temporary exclusion is vacated, the maritime document shall be returned against an appropriate receipt. If the temporary exclusion is made permanent for the duration, the Coast Guard Captain of the Port Identification Card shall be destroyed and the other maritime documents transmitted to the Commandant, United States Coast Guard, for safekeeping for the duration of the war.

§ 9.104 *Separability.* If any provision of the regulations contained in this subpart or the application of such provision to any person, maritime document, or circumstance, shall be held invalid, the validity of the remainder of the regulations contained in this subpart and the applicability of such provision to other persons, maritime documents, or circumstances shall not be affected thereby. (9 F.R. 7584, July 7, 1944).

CONTROL, DOCUMENTATION AND SECURITY INTELLIGENCE INTERROGATION OF SEAMEN IN UNITED STATES

By virtue of the authority vested in the Commandant, United States Coast Guard, by the order of the Secretary of the Navy, relating to control, documentation and security intelligence interrogation of seamen in the United States of America (34 CFR, 1.3009, 9 F.R. 7204), made pursuant to Executive Order No. 9074: *It is hereby ordered*, as follows:

1. The several District Coast Guard Officers and such officers under their direction as they may designate, are authorized and directed to take such steps, institute such measures, and issue such regulations and orders as may be necesary for security in connection with the presence of officers and seamen (including alien officers and seamen) on merchant vessels in their respective districts, including (a) any appropriate action by way of identification, investigation and interrogation of such officers and seamen for the purpose of determining whether their presence on a merchant vessel or water-front facility would, for any reason, be inimical to the interest of the United States; (b) withholding of the issuance of licenses, certificates, employment cards, identification cards or other seamen's papers; (c) appropriate action under the Regulations Relating to the Removal and Exclusion of Persons from Vessels and Water Front Facilities approved by the Secretary of the Navy and the President (8 F.R. 16867); and (d) appropriate approvals of persons for employment as officers and seamen on merchant vessels.

2. All agencies and authorities of the Government of the United States concerned in the matter are called upon pursuant to paragraph 2 of Executive Order No. 9074 to conform to all regulations and orders issued by the District Coast Guard Officers or their designated representatives under paragraph 1 of this order, and to give such assistance to the District Coast Guard Officers and their representatives as their available facilities will permit.

Dated: June 28, 1944.

L. T. CHALKER,
Rear Admiral, USCG,
Acting Commandant

[F.R. Doc. 44-9510; Filed, June 29, 1944; 10: 43 a. m.]

(9 F.R. 7270, June 30, 1944.)

TITLE 46—SHIPPING

Chapter I—Coast Guard: Inspection and Navigation

SUBCHAPTER N—EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES, AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

PART 146—TRANSPORTATION OR STORAGE OF EXPLOSIVES OR OTHER DANGEROUS ARTICLES OR SUBSTANCES, AND COMBUSTIBLE LIQUIDS ON BOARD VESSELS

Section 146.24-100 is amended as follows:

§ 146.24-100 *Table G—Classification: compressed gases.* For article, liquefied petroleum gases (pressure not exceeding 375 lbs. per sq. in. at 130° F.), in Columns 4 and 7, and immediately following "Tank cars (ICC-106A500)," insert "Tanks (ICC-106A500)." (9 F.R. 7526, July 6, 1944).

SUBCHAPTER O—REGULATIONS APPLICABLE TO CERTAIN VESSELS AND SHIPPING DURING EMERGENCY

PART 151—MARINE ENGINEERING, MATERIALS; REGULATIONS DURING EMERGENCY

Section 151.2 is amended to read as follows:

§ 151.2 *Marine boiler steel plate.* (a) Steel plate manufactured during the emergency in accordance with the specifications of A.S.T.M. designation A 201-43 and A.S.T.M. emergency alternate provision EA-A 201, grades A and B shall be considered as satisfying the requirements for steel plates of grades A and B, respectively, specified in §§ 51.2-1 to 51.2-10, inclusive, of this chapter.

(b) Steel plate manufactured during the emergency in accordance with the specifications of A.S.T.M. designation A 204-42 and A.S.T.M. emergency alternate provision EA-A 204, grades A, B, and C shall be considered as satisfying the requirements for steel plates of grades E, F, and G, respectively, specified in §§ 51.2-1 to 51.2-10, inclusive, of this chapter.

Section 151.3 *Marine boiler steel plate* is deleted.

Section 151.4 *Lap-welded and seamless steel and lap-welded iron boiler tubes* is deleted.

Section 151.5 *Electric-resistance-welded steel and open-hearth iron boiler and superheater tubes* is deleted.

Section 151.6 *Seamless steel boiler tubes for high-pressure service; medium-carbon seamless steel boiler and superheater tubes; carbon-molybdenum alloy-steel boiler and superheater tubes* is deleted.

Section 151.7 *Steel pipe* is deleted.

Section 151.8 *Seamless brass pipe* is deleted.

Section 151.9 is amended to read as follows:

§ 151.9 *Lap-welded and seamless steel and lap-welded iron boiler tubes.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 83-42 and A. S. T. M. emergency alternate provision EA-A 83 shall be considered as satisfying the requirements of §§ 51.9-1 to 51.9-16, inclusive, of this chapter.

Part 151 is amended by the addition of a new § 151.9a reading as follows:

§ 151.9a *Electric-resistance-welded steel and open-hearth iron boiler and superheater tubes.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designations A 178-40 and A 226-40 together with

A. S. T. M. emergency alternate provisions EA–A 178 and EA–A 226, respectively, shall be considered as satisfying the requirements of §§ 51.9a–1 to 51.9a–18, inclusive, of this chapter.

Section 151.10 is amended to read as follows:

§ 151.10 *Seamless steel boiler tubes for high-pressure service; medium-carbon seamless steel boiler and superheater tubes; carbon-molybdenum alloy-steel boiler and superheater tubes.* (a) Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 192–40 and A. S. T. M. emergency alternate provision EA–A 192 shall be considered as satisfying the requirements for seamless steel boiler tubes for high pressure service as set forth in §§ 51.10–1 to 51.10–18, inclusive, of this chapter.

(b) Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 209–42 and A. S. T. M. emergency alternate provision EA–A 209 shall be considered as satisfying the requirements for carbon-molybdenum alloy-steel boiler and superheater tubes as set forth in §§ 51.10–1 to 51.10–18, inclusive, of this chapter.

Section 151.11 is amended to read as follows:

§ 151.11 *Steel pipe.* (a) Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 106–43T shall be considered as satisfying the requirements for lap-welded, grade A seamless and grade B seamless steel pipe, as set forth in §§ 51.11–1 to 51.11–9, inclusive, of this chapter: *Provided*, That grade B seamless steel pipe manufactured by the acid-bessemer process shall be limited in use to pressures of not over 350 lbs. per square inch and/or temperatures not exceeding 450° F. and to installations where the pipe will not be bent, coiled, flanged, or otherwise worked cold; *Provided further*, That it may be used for higher pressures and temperatures for such purposes as superheater drains, etc., in sizes of not over 2" nominal pipe size. Grade B seamless steel pipe manufactured by the acid-bessemer process may be fabricated by hot-bending, hot-flanging, or otherwise hot-worked.

(b) Material manufactured during the emergency in accordance with the requirements of A. S. T. M. designation A 206–42T and A. S. T. M. emergency alternate provision EA–A–206 shall be considered as satisfying the requirements for carbon-molybdenum grade P–1 pipe as set forth in §§ 51.11–1 to 51.11–9, inclusive, of this chapter.

Section 151.12 *Steel plates (flange and fire-box quality)* is deleted.

Section 151.13 is amended to read as follows:

§ 151.13 *Seamless brass pipe.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation B 43–42 shall be considered as satisfying the requirements for seamless brass pipe, as set forth in §§ 51.13–1 to 51.13–14, inclusive, of this chapter.

Part 151 is amended by the addition of new §§ 151.14, 151.17, 151.18, and 151.20 to 151.23, inclusive, reading as follows:

§ 151.14 *Seamless copper pipe.* Material manufactured during the emergency in accordance with the requirements of A. S. T. M. designation B 42–43 shall be considered as satisfying the requirements for seamless copper pipe as set forth in §§ 51.14–1 to 51.14–10, inclusive, of this chapter.

§ 151.17 *Steel castings.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 157–42, Type C1 shall be considered as satisfying the requirements for carbon-molybdenum alloy steel castings, grade C1, as set forth in § 51.17–1 to 51.17–12, inclusive, of this chapter.

§ 151.18 *Gray iron castings for valves, flanges, and pipe fittings.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 126–42 shall be considered as satisfying the requirements for gray iron castings as set forth in §§ 51.18–1 to 15.18–10, inclusive, of this chapter.

§ 151.20 *Bronze castings*—(a) *General.* The provisions covering the use of grade A bronze in § 51.20–1 of this chapter are hereby suspended for the duration of the emergency and this material will be permitted for the construction of the pressure containing parts of valves and pipe fittings which are subjected to working pressures up to 200 lbs. per square inch and/or temperatures not exceeding 388° F.

(b) *Grade A.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation B 62–41 and A. S. T. M. emergency alternate provision EA–B 62a shall be considered as satisfying the requirements for grade A bronze, as set forth in §§ 51.20–1 to 51.20–10, inclusive, of this chapter.

(c) *Grade B.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation B 61–42 and A. S. T. M. emergency alternate provision EA–B 61 shall be considered as satisfying the requirements for grade B bronze as set forth in §§ 51.20–1 to 51.20–10, inclusive, of this chapter.

(d) *Grade C.* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation B 60–41 and A. S. T. M. emergency alternate provision EA–B 60a shall be considered as satisfying the requirements for grade C bronze, as set forth in §§ 51.20–1 to 51.20–10, inclusive, of this chapter.

§ 151.21 *Steel plates (flange and firebox quality).* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 70–42 and A. S. T. M. emergency alternate provision EA–A 70 shall be considered as satisfying the requirements for steel plates, as set forth in §§ 51.21–1 to 51.21–13, inclusive, of this chapter.

§ 151.22 *Steel plates for welding (flange and firebox quality).* Material manufactured during the emergency in accordance with the specifications of A. S. T. M. designation A 89–43 and A. S. T. M. emergency alternate provision EA–A 89 shall be considered as satisfying the requirements for steel plates, as set forth in §§ 51.22–1 to 51.22–11, inclusive, of this chapter.

§ 151.23 *Flanges, steel plate.* During the emergency flanges without hubs cut and machined from steel plate may be used for Class II piping services provided they comply with the following requirements:

(a) The plate shall be of good weldable quality made by the open-hearth or electric furnace process and shall have a minimum tensile strength of 55,000 lbs. per square inch, a yield point of not less than 0.5 of the tensile strength and an elongation in 8 inches of not less than $\frac{1{,}500{,}000}{\text{(tensile strength)}}$. The carbon content shall not exceed 0.33 percent, the sulphur content shall not exceed 0.05 percent and the phosphorus content shall not exceed 0.06 percent acid and 0.04 percent basic.

(b) The flange dimensions shall comply with those for 150-pound A. S. A. standard flanges as given in Table P–3 of Part 55 of this chapter

(c) The flanges shall be attached to pipes by means of full strength fillet welds on both the face and back of the flanges.

(d) Such flanges need not be marked as required by §55.19–3 (s) (1) of this chapter, but when shipped shall be accompanied by an affidavit stating that they comply with the regulations in this part. The affidavit shall be kept on file by the shipbuilder or repair yard for examination and checking by the inspectors (9 F. R. 7944, July 15, 1944).

Part 153—Boats, Rafts, and Lifesaving Appliances; Regulations During Emergency

Effective November 1, 1944, § 153.6 (m) (5) is amended to read as follows:

§ 153.6 *Additional equipment for lifeboats on self-propelled ocean and coastwise vessels.* * * *

(m) *Provisions.* * * *

(5) On and after November 1, 1944, the provisions required by this section shall be packaged in hermetically sealed containers of an approved type and stowed in provision lockers or other compartments providing suitable protection.

Section 153.6 (p) (1) is amended by the addition of a new paragraph reading as follows:

(p) *Water containers*—(1) *Existing lifeboats.* * * *

On and after November 1, 1944, the drinking water required by this section shall be contained in hermetically sealed cans of an approved type and stowed in the drinking water tanks, lockers, or other compartments providing suitable protection.

Section 153.6 (p) (2) is amended by the addition of a new paragraph reading as follows, to immediately precede the last undesignated paragraph thereof:

(2) *New lifeboats.* * * *

On and after November 1, 1944, the drinking water required by this section shall be contained in hermetically sealed cans of an approved type and stowed in the drinking water tanks, lockers, or other compartments providing suitable protection.

Section 153.6a (a) (3) is amended by the addition of a new sentence reading as follows:

§ 153.6a *Additional equipment for lifeboats on seagoing barges of 100 gross tons or over.* (a) * * *

(3) *Water containers.* * * *

On and after November 1, 1944, the drinking water required by this section shall be contained in hermetically sealed cans of an approved type and stowed in the drinking water tanks, lockers, or other compartments providing suitable protection.

Effective November 1, 1944, § 153.6a (a) (7) is amended by changing the second undesignated paragraph to read as follows:

(7) *Provisions.* * * *

On and after November 1, 1944, the provisions required by this section shall be packaged in hermetically sealed containers of an approved type and stowed in provision lockers or other compartments providing suitable protection.

Effective November 1, 1944, § 153.7 (c) (5) is amended to read as follows:

§ 153.7 *Additional equipment for life rafts approved prior to March 15, 1943, for ocean and coastwise vessels.* * * *

(c) *Provisions.* * * *

(5) On and after November 1, 1944, the provisions required by this section shall be packaged in hermetically sealed containers of an approved type and stowed in provision lockers or other compartments providing suitable protection.

Section 153.7 (e) is amended to read as follows:

(e) *Water.* At least 3 quarts of fresh drinking water per person, including that required by § 59.52 of this chapter. On and after November 1, 1944, the water shall be contained in hermetically sealed cans and stowed in drinking water tanks, lockers or other compartments providing suitable protection.

Effective November 1, 1944, § 153.7a (aa) (5) is amended to read as follows:

§ 153.7a *Equipment for life rafts approved on and after March 15, 1943.* * * *

(aa) *Provisions.* * * *

(5) On and after November 1, 1944, the provisions required by this section shall be packaged in hermetically sealed containers of an approved type and stowed in provision lockers or other compartments providing suitable protection.

Section 153.7a (gg) is amended by the addition of a new sentence reading as follows:

(gg) *Water.* * * *

On and after November 1, 1944, the drinking water required by this section shall be contained in hermetically sealed cans of an approved type and stowed in the drinking water tanks, lockers or other compartments providing suitable protection. (9 F.R. 7526, July 6, 1944).

UNITED STATES COAST GUARD.

MARINE INSPECTION OFFICE

ESTABLISHMENT AT HOUSTON, TEX.

By virtue of the authority vested in me by Executive Order 9083, dated February 28, 1942 (7 F.R. 1609), *It is ordered*, That the following changes be and they are hereby made in the field organization of the United States Coast Guard:

1. A marine inspection office is established at Houston, Texas.

2. This order shall become effective at the commencement of business on May 15, 1944.

Dated: May 15, 1944.

R. R. WAESCHE,
Vice Admiral, U. S. C. G.,
Commandant.

[F. R. Doc. 44-9855; Filed, July 5, 1944; 9:32 a. m.]

(9 F.R. 7556, July 6, 1944.)

Equipment Approved by the Commandant

DISENGAGING APPARATUS FOR LIFEBOATS

Rottmer type releasing gear (General Arrangement Dwg. No. 1356, dated 13 February, 1944) (Maximum working load of 9,150 pounds per hook, 18,300 pounds per set), submitted by C. C. Galbraith & Son, Inc., 99 Park Place, New York, N. Y. (9 F.R. 7526, July 6, 1944).

Model R-3, Rottmer Releasing Gear (Dwg. No. S82-1-39, dated June 27, 1944) (Maximum working load of 9,100 lbs. per hook; 18,200 lbs. per set), submitted by the Imperial Lifeboat & Davit Corp., Athens, New York.

FIRST-AID KIT

First-aid kit, 24-unit, Model IW24A, submitted by Industrial Drug Supplies, Inc., 108 Greenwich Street, New York, N. Y. (9 F.R. 7526, July 6, 1944).

LIFEBOATS

22' x 7.5' x 3.16' metallic oar-propelled lifeboat (312.8 cu. ft. capacity) (Construction Plan Dwg. No. 550, dated 25 July, 1942), submitted by Boatcraft Company, Cor. Cropsey & 26th Ave., Brooklyn, N. Y. (9 F.R. 7526, July 6, 1944).

LIFE FLOATS

15-person, rectangular balsa wood life float (Dwg. No. LF-15-1, dated 16 March, 1944), submitted by Paul, Rice & Levy, Inc., 2938 Dauphine Street, New Orleans, La. (9 F.R. 7526, July 6, 1944).

60-person rectangular solid balsa wood life float (Dwg. Nos. 11-1-43 and 11-1-43, Revision A, dated 1 November, 1943), submitted by the Atlantic-Pacific Manufacturing Corp., Brooklyn, N. Y.

LIFE PRESERVERS

Model No. 1, adult kapok life preserver (C. G. Dwg. No. F-49-6-1, Alt. 1, and Specification dated 10 June, 1944). Approval No. B-225, manufactured by The American Pad and Textile Company, Greenfield, Ohio. (For general use.)

Model No. 2, adult kapok life preserver (C. G. Dwg. No. F-49-6-1, Alt. 1, and Specification dated 10 June, 1944), Approval No. B-226, manufactured by The American Pad and Textile Company, Greenfield, Ohio. (For general use.)

Model No. 3, adult kapok life preserver (C. G. Dwg. No. F-49-6-1, Alt. 1, and Specification dated 10 June, 1944), Approval No. B-227, manufactured by The American Pad and Textile Company, Greenfield, Ohio. (For use with rubber lifesaving suits.) (9 F.R. 8282, July 21, 1944.)

LIFE RAFT

24-person steel truss, Model #7, improved type life raft (Dwg. No. 1772, dated 27 June, 1944), submitted by the L. A. Young Spring and Wire Corporation, 900 High Street, Oakland, California (9 F.R. 8282, July 21, 1944).

LUMINOUS CLOTH OR TAPE FOR MARKING INTERIOR ACCOMMODATIONS

Luminous marking, Type B with adhesive attached, submitted by the Hall-Vesole Company, 2350 University Avenue, St. Paul, Minnesota (9 F.R. 8282, July 21, 1944).

RING LIFE BUOY

30" cork ring life buoy (Dwg. No. 1–108, dated 26 January, 1944), Approval No. B–224, manufactured by Wilber & Son, 545 Mission Street, San Francisco, California (9 F.R. 8282, July 21, 1944).

SIGNAL PISTOL

Signal pistol (Dwg. Z–100 and Z–101) submitted by Sklar Signal Pistol Co., 1017 Market Street, San Francisco, Calif.

WHISTLE

Whistle (U. S. Coast Guard specification dated 10 November, 1943), submitted by Plastic Engineering, Inc., 8506 Lake Avenue, Cleveland, Ohio (9 F.R. 7526, July 6, 1944).

AFFIDAVITS

IT is required by the Marine Engineering Regulations that manufacturers submit affidavits before they manufacture items of equipment in accordance with these regulations for use on vessels subject to inspection by the Coast Guard. These affidavits are kept on file at Coast Guard Headquarters and a list of approved manufacturers is published for the information of all parties concerned. The affidavits received and accepted during the period from June 16 to July 15, 1944, are as follows:

Lynch Brass & Aluminum Foundry, 1091 71st Avenue, Oakland, Calif., brass or bronze castings.

Pohlman Foundry Co., Inc., Buffalo, N. Y., gray iron castings.

Vulcan Rivet & Bolt Corporation, Inc., Tarrant, Ala., alloy bolts.

Williamsburg Fireproof Products Corporation, 76–94 Quay Street, Brooklyn 22, N. Y., steel flanges.

ITEMS SUITABLE FOR MERCHANT MARINE USE

ELECTRICAL APPLIANCES

FOR the use of Coast Guard personnel in their work of inspecting merchant vessels, the following items of electrical equipment have been examined. This list is not intended to be an all-inclusive list of miscellaneous electrical equipment; accordingly, items not included may also be satisfactory for marine use.

Manufacturer and description of equipment	Location apparatus may be used				Date of action
	Passenger and crew quarters and public spaces	Machinery cargo and work spaces	Open decks	Pump rooms of tank vessels	
Condi-Lite Corporation, New York, N. Y.:					
Fixtures and fittings, drawing No. C43-814-16, rev. 5-10-44:					
Junction box, watertight, catalog No. 700–A	x	x	x		6/19/44
Connection box, watertight, catalog No. 710–A	x	x	x		6/19/44
Ceiling fixture, nonwatertight, 50 watts maximum, catalog No. 730–A	x				6/19/44
Ceiling fixture with guard, nonwatertight, 50 watts maximum, catalog No. 740–A	x				6/19/44
The Dayton Manufacturing Co., Dayton, Ohio:					
Desk lamp, 60 watts maximum, fixture No. L–15099–M, drawing No. 612–1, rev. 5	x				6/17/44
Cabinet or mirror light, 40 watts maximum, fixture No. B–5485, drawing No. 1562, rev. 6	x				6/17/44
Mirror, wall and cabinet lights, 2 40-watt lamps maximum, fixture Nos. B–5494 and B–5494–1, drawing 1603, rev. 5	x				6/17/44
Cabinet or mirror fixture, 40 watts maximum, fixture No. B–5495, drawing No. 1605, rev. 4	x				6/17/44
Wall bracket fixture, 40 watts maximum, fixture No. B–5497, drawing No. 1607, rev. 5	x				6/17/44
Wall bracket fixture, 25 watts maximum, fixture No. B–5498, drawing No. 1608, rev. 4	x				6/17/44
Ceiling fixture, 50 watts maximum, fixture No. B–10723, drawing No. 1612, rev. 2	x				6/17/44
Ceiling fixture, 60 watts maximum, fixture No. C–10725–PS–1, drawing No. 1616–P–1, rev. 1	x				6/17/44
Ceiling fixture, 50 watts maximum, fixture No. C–10728, drawing No. 1624, rev. 4	x				6/17/44
Berth light, 25 watts maximum, fixture No. B–5498	x				6/17/44
Berth light, 40 watts maximum, fixture No. B–5452, drawing No. 1365, rev. 1	x				6/29/44
Berth light, 40 watts maximum, fixture No. B–5452–1, drawing No. 1365–1, rev. 1	x				6/29/44
Ceiling light, 2 60-watt lamps maximum, fixture No. C–10445–1, drawing No. 650–1, rev. 2	x				6/28/44
Ceiling light, 60 watts maximum, fixture No. C–10725–P. B., drawing No. 1616–P. B., rev. 1	x				6/28/44
Ceiling light, 60 watts maximum, fixture No. C–10726–P. B., drawing No. 1617–P. B., rev. 1	x				6/28/44
Wall bracket fixtures, 100 watts maximum, fixtures Nos. B–5510–1 and B–5510–A–1, drawing No. 1687–1, rev. 2	x				6/28/44
Hunter Fan & Ventilating Co., Inc., Fulton, N. Y.:					
Port hole ventilator, 115 volts, D. C., drawing No. 90016, rev. 4–3–44	x	x	x		6/20/44
Mellaphone Corporation, Rochester, N. Y.:					
Receptacle, twin, watertight, drawing No. 1000–1, rev. A	x	x	x		7/4/44
Switch, watertight, drawing No. 1001–1, rev. A	x	x	x		7/4/44
Junction box, drawing No. 1004–1, rev. A	x				7/4/44
Partrick & Wilkins Co., Philadelphia, Pa.:					
General alarm contact maker, 10 amperes, 250 volts; 15 amperes, 120 volts, catalog No. 1600–R, drawing No. 1001–A, rev. O	x	x	x		6/28/44
Blackout switch, watertight, 125 volts, 15 amperes, catalog No. 1009–44, drawing No. 1009–44–A (no rev. No.)	x	x	x		7/1/44
Perkins Marine Lamp & Hardware Co., Brooklyn, N. Y.:					
Side lights, oil, fig. No. 1155—No. 2, drawing No. 1–P–00020, alt. 1			x	x	6/24/44
Masthead, range, towing and bow lights, oil, figure No. 1156—No. 2, drawing No. 1–P–00022, alt. 1			x		6/24/44
Stern and overtaken lights, oil, fig. No. 1157—No. 2, drawing No. 1–P–00022, alt. 1			x		6/24/44
Anchor light, oil, fig. No. 1158—No. 2, drawing No. 1–P–00023, alt. 1			x		6/24/44
Not-under-command light, oil, fig. No. 1159—No. 2, drawing No. 1–P–00024, alt. 1			x		6/24/44
Sea Emergency Devices Co., New York, N. Y.:					
Cargo light, Acme, model C, 300 watts maximum, drawing No. 106, alt. 3 (for use as portable cargo light only and not to be used as an only source of illumination in a cargo space)	x	x			7/8/44
Wilcox, Crittenden & Co., Inc., Middletown, Conn.:					
Side lights, electric, size No. 3, fig. 6112, drawing No. M–3331, alt. 2			x		6/17/44
Masthead, range and towing lights, electric, size No. 3, fig. 6122, drawing No. M–3332, alt. 2			x		6/17/44
Stern light, electric, size No. 3, fig. 6132, drawing No. M–3333, alt. 2			x		6/17/44
Stern light, blue, electric, size No. 3, fig. 6132–B, drawing No. M–3337, alt. 2			x		6/17/44
Anchor light, electric, size No. 3, fig. 6142, drawing No. M–3345, alt. 3			x		6/17/44
Side lights, oil, size No. 3, fig. 6110, drawing No. M–3319, alt. 2			x		6/17/44
Masthead, range and towing lights, oil, size No. 3, fig. 6120, drawing No. M–3320, alt. 2			x		6/17/44
Stern light, oil, size No. 3, fig. 6130, drawing No. M–3321, alt. 2			x		6/17/44
Stern light, blue, oil, size No. 3, fig. 6130–B, drawing No. M–3336, alt. 2			x		6/17/44
Anchor light, oil, size No. 3, fig. 6140, drawing No. M–3322, alt. 3			x		6/17/44
Not-under-command light, oil, size No. 3, fig. 6150, drawing No. M–3339, alt. 3			x		6/17/44

Merchant Marine Personnel Statistics

MERCHANT MARINE LICENSES ISSUED DURING JUNE 1944

DECK OFFICERS

REGION	Master										Chief Mate										Second Mate									
	Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	47	73	1	18		1	6	45	1	6	86	7		2				5			141	13		2						
Gulf coast	5	14	1	5			3	2	1	3	18	3		1						1	22	1								
Great Lakes and rivers						5		1	10	13		1							4	2										
Pacific coast	31	34	1	1			3	8		1	49	7	2				6	7			83	9								
Total	83	121	3	24		6	12	56	12	23	153	18	2	3			6	12	4	3	246	23		2						

REGION	Third Mate										Pilots						Master		Mate		Totals		
	Ocean		Coastwise		Great Lakes		B. S. & L.		Rivers		Great Lakes		B. S. & L.		Rivers		Uninspected vessels, high seas				Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	322	20		3							1	9	45	110	2	11	2		3		657	325	982
Gulf coast	46	1											4	9	11	10					111	50	161
Great Lakes and rivers											2	7		2	65	16					81	47	128
Pacific coast	147	2											22	36	2	2					346	107	453
Total	515	23		3							3	16	71	157	80	39	2		3		1,195	529	1,724

ENGINEER OFFICERS

REGION	Chief engineer, steam				First assistant engineer, steam				Second assistant engineer, steam				Third assistant engineer, steam			
	Ocean		Inland		Ocean		Inland		Ocean		Inland		Ocean		Inland	
	O	R	O	R	O	R	O	R	O	R	O	R	O	R	O	R
Atlantic coast	68	90	11	43	81	27		11	144	33	1	2	417	11		
Gulf coast	9	13		2	14	1	1		19	3			45			
Great Lakes and rivers	1	7	4	29		3	3	18			2	8		1	3	
Pacific coast	25	38		5	39	7		5	102	11			115	5		
Total	103	148	15	79	134	38	4	34	265	47	3	10	577	17	3	

REGION	Motor vessels								Uninspected vessels				Totals		
	Chief engineer		First assistant engineer		Second assistant engineer		Third assistant engineer		Chief engineer		Assistant engineer		Original	Renewal	Grand total
	O	R	O	R	O	R	O	R	O	R	O	R			
Atlantic coast	20	41	11	16	13	2	313	2					1,079	278	1,357
Gulf coast	8	9	2	1	3		35						136	29	165
Great Lakes and rivers	2	5	3	3		2							18	76	94
Pacific coast	12	23	8	5	7	2	106	2		1			414	104	519
Total	42	78	24	25	23	6	454	4		1			1,647	487	2,134

ORIGINAL SEAMEN'S DOCUMENTS ISSUED, MONTH OF JUNE 1944

REGION	Continuous discharge book	Certificate of identity	A. B., green 3 years [1]	A. B., green 9 months emergency [2]	A. B., blue 18 months 12 months [1]	A. B., blue 6 months emergency [2]	A. B., blue 6 months emergency [3]	Lifeboat 12–24 months (4)	Lifeboat 6–12 months emergency [5]	Q.M.E.D. 6 months	Q.M.E.D. emergency	Radio operators	Certificate of service	Tankerman	Staff officer	Total
Atlantic coast	93	5,247	81	571	63	23	0	1,998	66	170	484	109	4,605	8	198	13,716
Gulf coast	80	1,130	13	103	4	0	0	585	8	30	171	7	998	57	28	3,214
Pacific coast	103	2,302	61	250	26	3	0	1,147	49	194	288	36	1,889	2	56	6,406
Great Lakes and rivers	2,719	152	21	44	9	30	0	37	35	32	147	18	2,844	11	11	6,110
Total	2,995	8,831	176	968	102	56	0	3,767	158	426	1,090	170	10,336	78	293	29,446

[1] Unlimited.
[2] Great Lakes, lakes, bays, and sounds.
[3] Tugs and towboats and freight vessels under 500 tons (miscellaneous).
[4] 12 months deck or 24 months other departments.
[5] 6 months deck or 12 months other departments.

WAIVERS OF MANNING REQUIREMENTS FROM 1 JUNE TO 30 JUNE 1944

Authority for these waivers contained in Navigation and Vessel Inspection Circular No. 31, dated 13 March 1943

REGION	Number of vessels	Deck officers substituted for higher ratings	Engineer officers substituted for higher ratings	Able seamen substituted for deck officers	Ordinary seamen substituted for able seamen	Qualified members of engine department substituted for engineer officers	Wipers or coal passers substituted for qualified members of engine department	Wipers, coal passers or cadets substituted for engineer officers	Ordinary seamen or cadets substituted for deck officers	Total
Atlantic coast	575	338	390	60	969	130	68	23	51	2,029
Gulf coast	69	46	33	8	91	8	8	.....	1	195
Pacific coast	285	91	92	15	559	60	54	8	12	891
Great Lakes	265	2	2	.....	415	.....	135	.....	4	558
Total	1,194	477	517	83	2,034	198	265	31	68	3,673

CREW SHORTAGE REPORTS FROM 1 JUNE TO 30 JUNE 1944

These reports submitted in accordance with Navigation and Vessel Inspection Circular No. 34, dated 1 May 1943

REGION	Number of vessels	Ratings in which shortages occurred												Total
		Chief mate	Second mate	Junior third mate	Radio	Able seamen	Ordinary seamen	Chief engineer	First engineer	Second engineer	Third engineer	Qualified member engine department	Wiper or coalpasser	
Atlantic coast	16	3	2	4	4	12	1	1	2	.....	.....	19	3	51
Gulf coast	3	.....	2	1	.....	.....	.....	.....	.....	.....	.....	1	.....	4
Pacific coast	30	2	1	1	.....	40	23	.....	.....	.....	1	23	10	101
Great Lakes	130	.....	.....	1	.....	76	12	.....	.....	3	12	76	21	201
Total	179	5	5	7	4	128	36	1	2	3	13	119	34	357

U. S. Coast Guard Photograph

This Coast Guardsman paid with his life. Are you doing your full share for freedom?

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